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The United States National Museum

1963 ANNUAL REPORT



The United States
National Museum

*Annual Report for the Year Ended
June 30, 1963*



SMITHSONIAN INSTITUTION

UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
Washington, D.C., August 15, 1963.

SIR: I have the honor to submit herewith a report upon the present condition of the United States National Museum and upon the work accomplished in its various departments during the fiscal year ended June 30, 1963.

Very respectfully,

FRANK A. TAYLOR,
Director, U. S. National Museum.

Dr. LEONARD CARMICHAEL,
Secretary, Smithsonian Institution.

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June 30, 1963

United States National Museum

Director: Frank A. Taylor

Registrar: Helena M. Weiss

Conservator: Charles H. Olin

MUSEUM OF NATURAL HISTORY

Director: T. Dale Stewart

Assistant Director: R. S. Cowan Assistant Director for Oceanography: I. E. Wallen
Mabel A. Byrd, Administrative Officer

Department of Anthropology: Waldo R. Wedel, head curator

ARCHEOLOGY: Clifford Evans, Jr., curator

Gus W. Van Beek, associate curator

ETHNOLOGY: Saul H. Riesenberg, curator

Gordon D. Gibson, associate curator

Eugene I. Knez, associate curator

William H. Crocker, associate curator

PHYSICAL ANTHROPOLOGY: J. Lawrence Angel, curator

A. Joseph Andrews, exhibits specialist

Department of Zoology: Horton H. Hobbs, Jr., head curator

Fenner A. Chace, Jr., senior scientist; Watson M. Perrygo, in charge of Taxidermy

MAMMALS: David H. Johnson, curator

Henry W. Setzer, associate curator
Charles O. Handley, Jr., associate curator

BIRDS: Philip S. Humphrey, curator
George E. Watson, assistant curator

REPTILES AND AMPHIBIANS: Doris M. Cochran, curator

FISHES: Leonard P. Schultz, curator
Ernest A. Lachner, associate curator

William R. Taylor, associate curator

Victor G. Springer, associate curator

Stanley H. Weitzman, associate curator

Robert H. Gibbs, Jr., associate curator

INSECTS: J. F. Gates Clarke, curator
Oscar L. Cartwright, associate curator

Ralph E. Crabill, Jr., associate curator

William D. Field, associate curator
Oliver S. Flint, Jr., associate curator

Donald R. Davis, associate curator
Donald W. Duckworth, associate curator

Paul J. Spangler, associate curator
MARINE INVERTEBRATES: Donald F. Squires, curator

Thomas E. Bowman, associate curator

Charles E. Cutress, Jr., associate curator

Marian H. Pettibone, associate curator

Raymond B. Manning, associate curator

MOLLUSKS: Harald A. Rehder, curator

Joseph P. E. Morrison, associate curator

Joseph Rosewater, associate curator

Department of Botany: Jason R. Swallen, head curator

PHANEROGAMS: Lyman B. Smith, curator
Velva E. Rudd, associate curator
John J. Wurdack, associate curator
Stanwyn G. Shetler, assistant curator
FERNS: Conrad V. Morton, curator
GRASSES: Jason R. Swallen, acting curator
Thomas R. Soderstrom, associate curator

CRYPTOGRAMS: Mason E. Hale, Jr., curator
Paul S. Conger, associate curator
Harold E. Robinson, associate curator
Richard E. Norris, associate curator
PLANT ANATOMY: William L. Stern, curator
Richard H. Eyde, associate curator

Department of Geology: G. Arthur Cooper, head curator

MINERALOGY AND PETROLOGY: George S. Switzer, curator
Edward P. Henderson, associate curator
Paul E. Desautels, associate curator
Roy S. Clarke, Jr., chemist
INVERTEBRATE PALEONTOLOGY AND PALEOBOTANY: Richard S. Boardman, curator
Porter M. Kier, associate curator
Richard Cifelli, associate curator

Erle G. Kauffman, associate curator
Francis M. Hueher, associate curator
Martin A. Buzas, associate curator
VERTEBRATE PALEONTOLOGY: C. Lewis Gazin, curator
David H. Dunkle, associate curator
Nicholas Hotton III, associate curator
Franklin L. Pearce, exhibits specialist

Oceanography Program: I. E. Wallen, Assistant Director for Oceanography

SMITHSONIAN OCEANOGRAPHIC SORTING CENTER

H. Adair Fehlmann, supervisory museum specialist

MUSEUM OF HISTORY AND TECHNOLOGY

Director: Frank A. Taylor

Assistant Director: John C. Ewers

William E. Boyle, administrative officer

Virginia Beets, administrative officer

Department of Science and Technology: Robert P. Multhauf, head curator

PHYSICAL SCIENCES: Robert P. Multhauf, acting curator
Walter E. Cannon, associate curator
MECHANICAL AND CIVIL ENGINEERING: Silvio A. Bedini, curator; in charge of Section of Tools
Edwin A. Battison, associate curator, Sections of Light Machinery and Horology
Robert M. Vogel, associate curator, Sections of Heavy Machinery and Civil Engineering
ELECTRICITY: Bernard S. Finn, associate curator in charge

TRANSPORTATION: Howard I. Chapelle, curator; in charge of Section of Marine Transportation
Kenneth M. Perry, associate curator
John H. White, Jr., associate curator, Section of Land Transportation
MEDICAL SCIENCES: Sami K. Hamarneh, curator; in charge of Sections of Medical and Dental History and Pharmaceutical History and Health

Department of Arts and Manufactures: Philip W. Bishop, head curator

MANUFACTURES AND HEAVY INDUSTRIES: Philip W. Bishop, acting curator

AGRICULTURE AND FOREST PRODUCTS: Edward C. Kendall, associate curator in charge

TEXTILES: Mrs. Grace Rogers Cooper, curator

CERAMICS AND GLASS: Paul V. Gardner, curator

J. Jefferson Miller II, assistant curator

GRAPHIC ARTS: Jacob Kainen, curator
Fuller O. Griffith, associate curator
Eugene Ostroff, associate curator,
Section of Photography

Department of Civil History: Richard H. Howland, head curator

Peter C. Welsh, curator; Mrs. Doris Esch Borthwick, assistant curator;
Ellen J. Finnegan, assistant curator

POLITICAL HISTORY: Wilcomb E. Washburn, curator

Mrs. Margaret Brown Klapthor, associate curator

Mrs. Anne W. Murray, assistant curator

Herbert R. Collins, assistant curator
Keith E. Melder, assistant curator

CULTURAL HISTORY: C. Malcolm Watkins, curator

Rodris C. Roth, associate curator

Mrs. Cynthia Adams Hoover, assistant curator

John N. Pearce, assistant curator
Anthony W. Hathaway, assistant curator

PHILATELY AND POSTAL HISTORY: Francis J. McCall, associate curator in charge

Carl H. Scheele, assistant curator

NUMISMATICS: Vladimir Clain-Stefanelli, curator

Mrs. Elvira Clain-Stefanelli, associate curator

Barbara F. Bode, junior curator

Department of Armed Forces History: Mendel L. Peterson, head curator

MILITARY HISTORY: Edgar M. Howell, curator

Craddock R. Goins, Jr., associate curator

NAVAL HISTORY: Philip K. Lundeberg, curator

Melvin H. Jackson, associate curator

Office of Exhibits: John E. Anglim, Chief

MUSEUM OF NATURAL HISTORY LABORATORY: A. Gilbert Wright, assistant chief

Julius Tretick, production supervisor

MUSEUM OF HISTORY AND TECHNOLOGY LABORATORY: Benjamin W. Lawless, chief

Bela S. Bory, production supervisor

Honorary Smithsonian Fellows, Associates, Collaborators, Custodians of Collections, and Honorary Curators

Anthropology

John M. Campbell, Archeology	H. Morgan Smith, Archeology
Neil M. Judd, Archeology	Walter W. Taylor, Jr., Anthropology
Herbert W. Krieger, Ethnology	William J. Tobin, Physical Anthropology
Betty J. Meggers, Archeology	
Frank M. Setzler, Anthropology	

Zoology

Oliver L. Austin, Birds	Allen McIntosh, Mollusks
Willard W. Becklund, Helminthology	J. Percy Moore, Marine Invertebrates
Doris H. Blake, Insects	Carl F. W. Muesebeck, Insects
J. Bruce Bredin, Biology	Waldo L. Schmitt, Marine Invertebrates
William L. Brown, Mammals	Benjamin Schwartz, Helminthology
Melbourne A. Carriker, Jr., Insects	Robert E. Snodgrass, Insects*
Ailsa M. Clark, Marine Invertebrates	Thomas E. Snyder, Isoptera
Herbert G. Deignan, Birds	Henry K. Townes, Insects
Carl J. Drake, Insects	Robert Traub, Mammals
K. C. Emerson, Insects	Alexander Wetmore, Birds
Herbert Friedmann, Birds	Mrs. Mildred Stratton Wilson, Copepod Crustacea
Frank M. Hull, Insects	
Laurence Irving, Birds	
William L. Jellison, Insects	

Botany

Chester R. Benjamin, Fungi	Floyd A. McClure, Grasses
Agnes Chase, Grasses	Kittie F. Parker, Phanerogams
Ellsworth P. Killip, Phanerogams	John A. Stevenson, Fungi
Emory C. Leonard, Phanerogams	William N. Watkins, Woods

Geology

C. Wythe Cooke, Invertebrate Paleontology	Axel A. Olsson, Invertebrate Paleontology
J. Thomas Dutro, Invertebrate Paleontology	Waldemar T. Schaller, Mineralogy
Remington Kellogg, Vertebrate Paleontology	Wendell P. Woodring, Invertebrate Paleontology

Science and Technology

Derek J. Price

Civil History

Mrs. Arthur M. Greenwood, Cultural History	Fred W. McKay, Numismatics
Elmer C. Herber, History	Emery May Norweb, Numismatics
Ivor Noël Hume, Cultural History	R. Henry Norweb, Numismatics

Armed Forces History

William Rea Furlong	Byron McCandless
Frederic C. Lane	

*Deceased, September 4, 1962.

Retirement of Dr. A. Remington Kellogg

On October 31, 1962, Dr. A. Remington Kellogg, Assistant Secretary of the Smithsonian Institution and Director of the United States National Museum, retired and assumed the status of honorary research associate of the Smithsonian. During Dr. Kellogg's service as Director from 1948, the National Museum experienced a remarkable growth. The collections grew from 25 million specimens in 1948 to 56 million in 1962. A renovation of exhibits programs revitalized more than 20 exhibition halls in the National Museum. A wing was added to the natural history building and a new Museum of History and Technology was built. Dr. Kellogg directed the programs that produced these results and participated strongly in executing them.

Prior to becoming Director of the National Museum, Dr. Kellogg had served in the division of mammals, beginning in 1928 as assistant curator and becoming curator of the division in 1941. His main scientific interest has been and continues to be the biology and paleontology of whales.

*Annual Report of
the Director*

United States National Museum



The first completed space in the Museum of History and Technology was turned over to the curatorial staff on May 19, 1963.

Buildings

During the year, the Administrator and the Commissioner of the Public Buildings Services, General Services Administration, have given their attention very generously to the construction of the New Museum of History and Technology, to renovation of the Museum of Natural History and the addition of wings to that building, and to other Smithsonian construction projects. Many other officials at both the central and the regional offices of the General Services Administration have been most helpful with advice and counsel. Mr. John E. Cudd, liaison architect, devoted his entire time to the Museum of History and Technology during the year and his expert judgment has been most appreciated. Mr. Thomas A. Reneau, construction management engineer, has continued to provide advice and information on the progress of the work.

Museum of History and Technology

The construction of the Museum of History and Technology building was reported by the General Services Administration June 22, 1963 to be 98 percent complete. The Board of Regents at their meeting of May 15, 1963, approved partial occupancy of the building for the purpose of installing exhibits in spaces accepted from the Contractor by the General Services Administration and offered to the Smithsonian as complete. On May 19, 1963, Smithsonian personnel were able to begin placing collections and exhibits in limited areas of the building. These spaces are being occupied according to the plan based upon the contractor's determination, made at the start of construction, of the order in which parts of the building would be completed.

Details of the progress of construction are contained in the report of the Joint Congressional Committee on Construction of a Building for a Museum of History and Technology for the Smithsonian Institution (Senate Doc. No. 40, 88th Cong., 1st Sess., Oct. 22, 1963). This report is here reprinted as an appendix (see p. 203).

Museum of Natural History

During the year the new east wing of the natural history building was completed and the department of geology and the divisions of birds and mollusks moved into their new quarters. For the first time in many years these units now have adequate workrooms and laboratories. The space provided for the systematic reference collections will permit these materials to be arranged to serve efficiently the hundreds of scientists who find them indispensable to their essential researches.

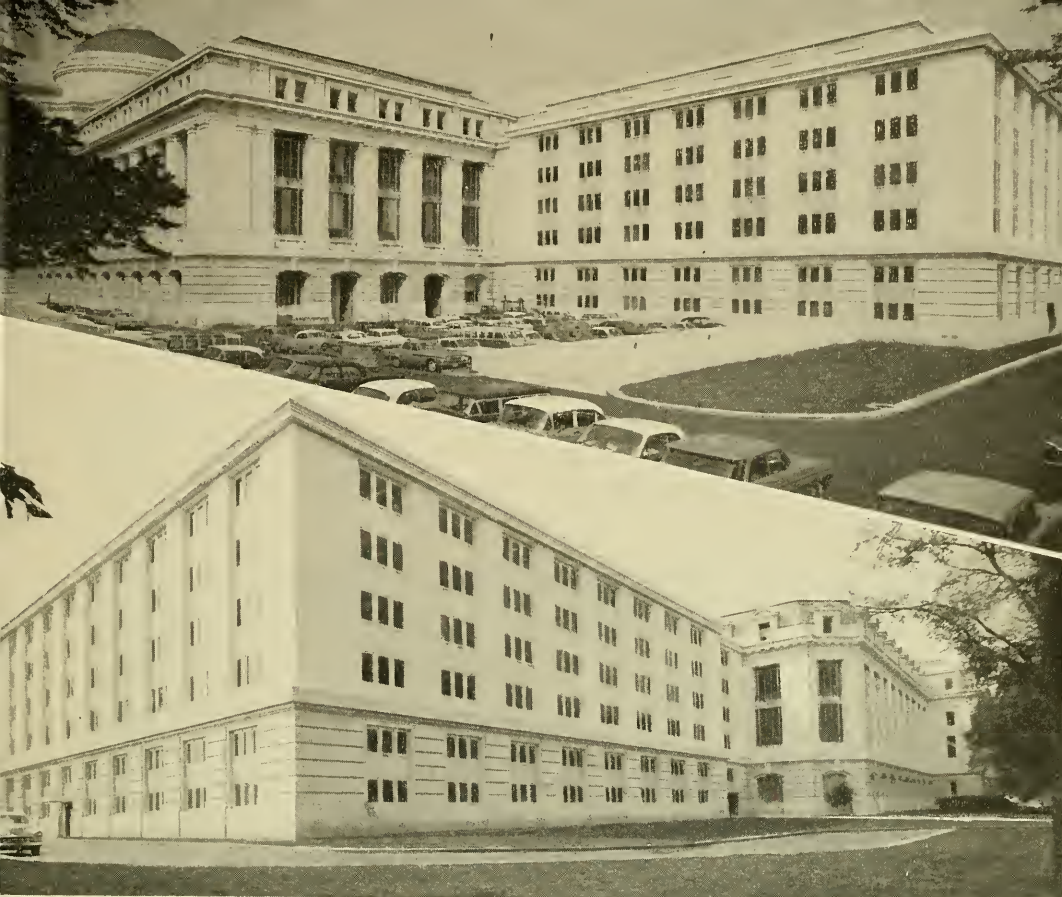
The part of the renovation of the existing building that is included in the construction of the east wing has provided air conditioning of the reference storage areas and the exhibit halls. This air conditioning is necessary for the preservation of the collections. Visiting the Museum is now much more pleasant for the hundreds of thousands of summer visitors who, as a result, are induced to stay longer and absorb more of the instruction and inspiration the exhibits provide.

At the close of the year, the contract for the construction of the west wing and the remaining renovation of the old building had not been awarded.

Funds Allotted

From the funds appropriated by the Congress to carry on the operations of the Smithsonian Institution and its bureaus during the fiscal year 1963, the sum of \$1,846,000 was obligated by the United States National Museum for the preservation, increase and study of the national collections of anthropological, zoological, botanical, and geological materials, as well as materials illustrative of engineering, technology, industry, graphic arts, and history. (This amount includes sums expended for the program of exhibits modernization.)

East wing of Museum of Natural History was occupied starting August 16, 1962. Top: south front, from Madison Drive and the Mall. Middle: east and north fronts, from corner of 9th Street and Constitution Avenue. Bottom: south (Mall) front of Museum from the air, showing east wing, with Department of Justice and Archives buildings in the background, across Constitution Avenue.



Exhibits

Especially noteworthy accomplishments in the exhibits program during the year were the reopening of three large halls of modernized exhibits in the Museum of Natural History, and the beginning of installation of exhibits in the new Museum of History and Technology.

With the opening of the second hall of North American archeology, the hall of marine life, and the hall of dinosaurs and fossil reptiles, all but three of the galleries on the first floor of the Museum of Natural History have been modernized, as have the majority of the halls in the east half of the second floor. Following his appointment to the directorship of the Museum of Natural History, Dr. T. Dale Stewart assumed the chairmanship of the committee coordinating and supervising the modernization of exhibits in natural history. Assistant director Richard S. Cowan has assumed responsibility for integrating the efforts of the curators and exhibits office personnel participating in the preparation of natural history exhibits. John H. Morrissey, project review chief, architectural branch of the Public Buildings Service, General Services Administration, and Pasquella Battestelli, Julius J. Dickinson, and Joseph S. Cromwell, Jr., design architects of that agency, contributed substantially to the design of the renovated exhibition halls.

Exhibits chief John E. Anglim continued in charge of the planning and preparation of all exhibits and directly supervised the operation of the exhibits laboratory in the Natural History building. In June 1963 Gilbert Wright joined the staff of that laboratory to assist in its supervision. Julius Tretick supervised the production and installation of natural history exhibits.

In late May and June 1963 the installation of exhibits in four halls of the new Museum of History and Technology was initiated. Exhibits units were prepared for 15 of the halls in the new museum during the year. Two other halls were in the exhibits design stage of their development. Assistant director John C. Ewers continued to coordinate the work of the curators and the exhibits staff in the exhibits program for the Museum of History and Technology, and Benjamin W. Lawless continued to supervise the design and production of exhibits for this museum as well as the preparation of additional displays for the Air and Space building. He was assisted by Bela S. Bory in production, Robert Klinger in the model shop, and Robert Widder in design. Carroll Lusk entered on duty as exhibits lighting specialist in January. The editing of the curators' drafts of exhibits scripts was continued by George Weiner, with the assistance of Constance Minkin and Edna Wright.

Anthropology

Modernization of exhibits continued to absorb a major share of the efforts of curators in all divisions throughout the year.

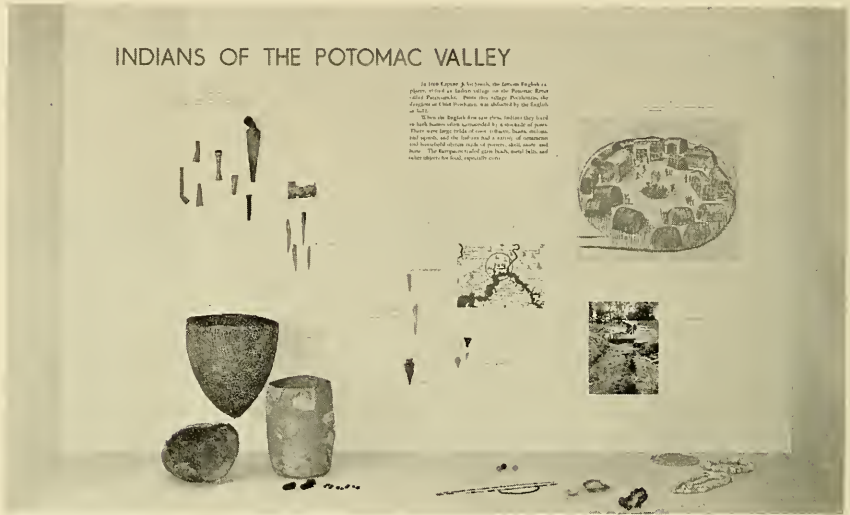
On November 16, 1962, the second hall of North American archeology was reopened to the public, presenting 38 modernized displays. An introductory section of six units explains the objectives and dating methods of systematic archeology. Four exhibits show characteristic weapon points and other artifacts of the Folsom, Agate Basin, and other big game hunters of 7,000 to 10,000 years ago. The remainder of the hall presents regional displays of the cultures of Southeastern, Middle Atlantic, and Northeastern United States, and those of the Great Plains. Within each region, cultural variations through time



Entrance to second renovated hall of North American archeology in the Museum of Natural History, opened to the public in November 1962.

are revealed in representative artifacts and art work. Among these exhibits are outstanding prehistoric textiles, engraved conch shells, and other objects from Spiro Mound, Okla.; embossed copper plates, monolithic axes, effigy pottery, and sculpture from the Southeast; prehistoric wood carvings from Florida; and ancient copper objects from the upper Great Lakes. Some maps and charts, and a reconstructed burial complex from Spiro Mound remain to be installed. Curator Waldo R. Wedel prepared the scripts and selected the specimens for this hall, with the expert assistance of Dr. C. G. Holland for the Virginia-Maryland section and Dr. W. A. Ritchie for the Northeastern United States section. Ray Hays and Mrs. Barbara Craig were responsible for the design of the exhibits.

Contract construction was completed for the fourth and last of the ethnological halls in the modernization program. Adjoining the recently opened hall of Pacific and Southeast Asian peoples, it will be devoted to exhibits on Africa, the Near East, and eastern Asia. Associate curator Gordon D. Gibson prepared 12 exhibit scripts and obtained materials for several more units in the African section of this



North American archeology: Indians of the Potomac Valley lived in stockaded villages when John Smith visited Patawomeke in 1608.

hall. Associate curator Eugene I. Knez completed six scripts for exhibits on contemporary life for the Asian section.

During his field trip early in 1963 curator Saul Riesenbergs obtained for the hall of Pacific and Asian peoples photographs and other data needed to complete a diorama on Pan Kedira, a megalithic structure on an artificial islet near Ponape. Associate curator William H. Crocker has collaborated with Mrs. Sophy Burnham of the Smithsonian Museum Service in preparing three new Audioguide tapes for the alcoves of South American ethnology.

Associate curator Gus Van Beek and exhibits designer R. O. Hower completed plans for the layout of the new hall of Old World archeology. This will present in 59 exhibits a synopsis of Old World cultural history from earliest times to the end of the Roman era. Renovation of some of the more important casts of Near Eastern monuments was begun, including experiments to determine the feasibility of reproducing the casts in more durable and lighter plastics.

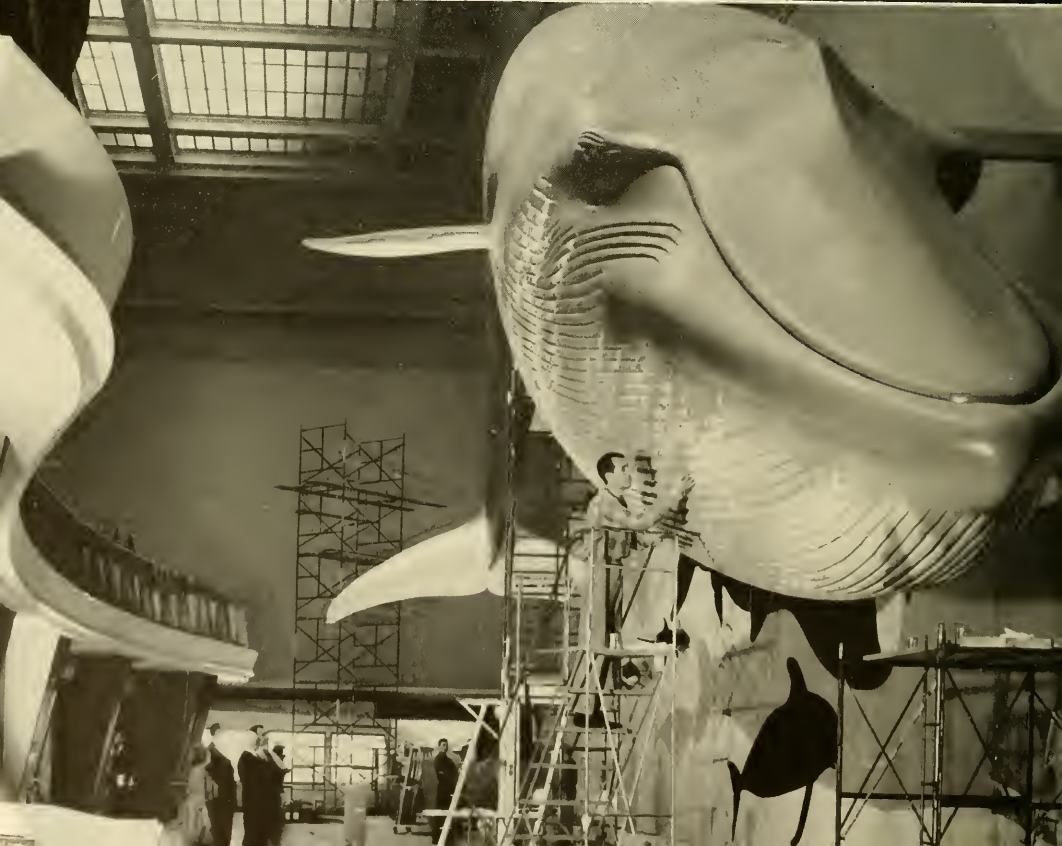
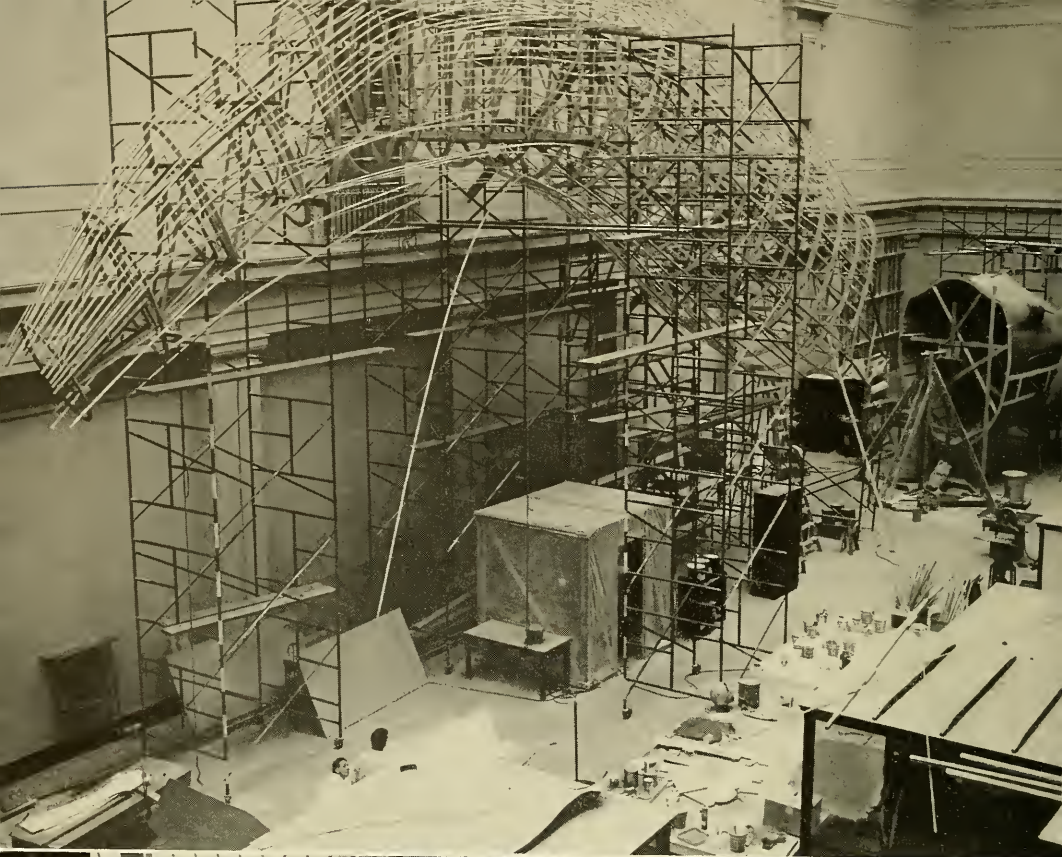
While he was still head curator of the department, Dr. T. D. Stewart, with the assistance of exhibits designer Joseph Shannon, completed the plan for the new hall of physical anthropology. During the year Dr. Stewart prepared detailed scripts for 14 exhibits, and Dr. Angel completed the specifications for a large map of peoples of the world. Contract renovation of the hall was begun March 30.

Zoology

The curators of all divisions (with the exception of insects) were engaged in the planning and development of modernized exhibition halls during the year.

The hall of life in the sea was officially opened to the public on February 18, 1963. Secretary Carmichael presented Dr. Remington Kellogg, recently retired assistant secretary of the Smithsonian Institution, who spoke about the dominant figure in the hall—a life-sized model of a blue whale prepared under his direction. A motion picture documenting the construction of this impressive exhibit also was shown at the opening ceremonies. Among the mammals displayed in the initial installation in this hall (which includes both permanent and temporary displays) are a sea otter and models of six different kinds of porpoises. A mural presents the silhouettes of five other species of whale on the wall below the blue whale. Fishes exhibited include the white mako, and big-eyed thresher shark, Pacific sailfish, and bluefin tuna. A group of six jellyfishes and comb jellies reverse-carved in eight laminated sheets of plexiglass provides very life-like representations of these fragile animals. The central alcove offers a gemlike display of unusual animals of the sea. Among the other installations are a series of 137 species of mollusks found in the Polynesia Province, the eastern Pacific area, and along our Atlantic Coast which enable visitors to appreciate the variety of shells in those three areas. The hall has been developed under the direction of Dr. Fenner A. Chace, Jr., in cooperation with exhibits designers Thomas Baker, Chris Karras, and Gorman Bond.

Mammals yet to be installed in this hall include a dugong, a walrus, and some smaller seals. During the year a fine large walrus was collected for the museum on St. Lawrence Island by Hugh H. Logan, and preparation of the specimen was begun by Norman N. Deaton. Other vertebrates soon to be added include sea turtles, sea snakes, a 12-foot manta ray, and other record-size fishes. Progress was made on the development of alcove exhibits devoted to such subjects as reproduction, parental care, larval forms of marine life, dangerous marine animals and marine pests. A reproduction of a New Caledonian coral reef, under the direction of curator Donald F. Squires, is



being designed. The eight cases on the balcony, designed to contain shore habitat groups and individual large animals, have been temporarily assigned to the U.S. Navy Oceanographic Office for an exhibit of oceanographic techniques and oceanography as a profession.

Contract construction in the hall of comparative osteology was virtually completed at year's end. Curator of mammals David H. Johnson is supervising the planning of the exhibits for this hall. Most of the bird and small mammal skeletons to be exhibited have been cleaned and restored by Leonard A. Blush of the taxidermy staff, and detailed plans for these displays are in preparation.

Also nearing completion is the contract construction for the hall of cold-blooded vertebrates, which is being developed under the direction of curator of fishes Leonard P. Schultz. Scripts for more than one-half of the units were prepared. Several fish casts were repaired. A cast of a near record size 12-foot white sturgeon was made by Mr. John Widener for the "ancestral" fishes case. This sturgeon, from the Frazer River of British Columbia, was obtained through the cooperation of Dr. Murray A. Newman, curator of the Vancouver Public Aquarium.

At year's end all curators in the department were engaged in planning and developing a temporary exhibition, "Zoology in the Smithsonian Institution," honoring the XVI International Congress of Zoology, to be held in Washington, D.C., during August 1963.

Botany

As a basis for detailed planning of exhibits in the hall of plant life, a detailed statement of the purpose and scale of each unit was drawn up, specifications for models in the rain-forest group were prepared, and some of the models were made.

Early in 1963 a field party spent five weeks in the distinctive desert of Baja California, Mexico, collecting data and materials for the

Various stages of construction of the blue whale, feature exhibit in the new hall of life in the sea. An inner framework (above, left) was constructed over steel beams tied into the building. A light framework of wood provided the body contours. The head section was completed separately, then mounted on the rest of the body, and after the outer fiberglass covering had been applied, the inner wooden framework was removed to decrease weight. The final mottling of the whale's underside (below, left), was painted over the individually fashioned ventral grooves.



In its completed form the whale stretches 94 feet and weighs approximately 8,000 pounds. On the wall behind the whale are models and outlines of other large sea animals. Beneath the balcony are temporary exhibits describing the process of designing and producing the hall.

construction of a desert life group. Dr. R. S. Cowan, assistant director of the Museum of Natural History, led the party and served as technical adviser and photographer. Paul Marchand was responsible for the preparation of models and other exhibit items, and sculptor Vernon R. Rickman assisted in making molds and models. Samples of many plants, rocks and desert sand were collected and several hundred kodachrome transparencies taken. The facilities of the Vermilion Sea Field Station at Bahia de Los Angeles, provided by the San Diego Natural History Museum, aided the field party's work in many ways.

Geology

The large, modernized hall of reptiles was opened to the public on June 25, 1963. The central figure in this hall is the giant sauropod *Diplodocus*, which in life was 80 feet long and weighed about 25 tons

The dominance of the dinosaurs in the terrestrial fauna of the age of reptiles is illustrated by displays representing all major groups of dinosaurs, in which the examples range in size from one whose arm bone was 6 feet long to a tiny beast with a thigh bone smaller than that of a chicken. A number of these specimens are unique, such as the skeleton of *Thescelosaurus*—a small, agile, plant-eating dinosaur that lived near the end of the age of reptiles. Special exhibits show methods of classifying the dinosaurs and the various ways in which they adapted to their environment. The dinosaurs in this museum are of historic as well as scientific interest. Many of the specimens were collected during the early United States Geological Survey explorations associated with the opening of the West between 1870 and 1895. Later acquisitions were made by Smithsonian expeditions, and through gifts and exchanges. The material is well known to paleontologists the world over.

Reptiles that include the ancestry of mammals also are displayed in this hall. These animals apparently were never abundant in the United States, and the exhibited fossils were collected recently in South Africa by an expedition sponsored jointly by the Smithsonian Institution, National Science Foundation, and the Bernard Price In-



stitute for Palaeontological Research, Johannesburg. The displays of fossil reptiles are related to exhibits of fossil invertebrates, fishes, and mammals in adjoining halls, so that the visitor to the museum can follow the history of life from its earliest traces almost to the present through an integrated series of galleries.

Associate curator Nicholas Hotton III planned the exhibits for the renovated hall with the assistance of exhibits designers Ann Karras and Barbara Craig. The division of vertebrate paleontology cleaned, repaired and reinstalled about 17 skeletons of dinosaurs and other reptiles formerly exhibited in this hall, and remounted or otherwise modified 8 other previously displayed specimens. Completely new exhibits of 14 skulls and skeletons required all stages of preparation in the laboratory as they arrived from the field.

Jay H. Matternes and Norman N. Deaton began the preparation of four dioramas for exhibition on the balcony of the hall. With animal figures at a scale of one inch to a foot, these will depict land vertebrates of the Upper Triassic, Upper Jurassic, and Upper Cretaceous, and sea vertebrates of the Upper Cretaceous.

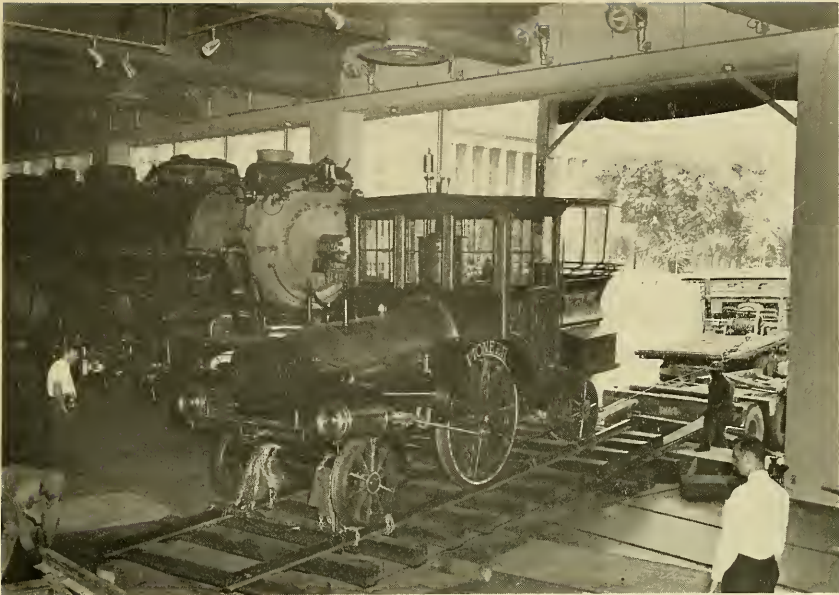
Artist Jay H. Matternes completed for the age of mammals hall a third mural painting. It depicts terrestrial life during the Oligocene in North America. Specifications were prepared for the fourth mural, which will represent an animal assemblage of the Pliocene epoch.

Considerable time was devoted to planning and design studies for the layout of exhibits for the hall of physical geology. This exhibit will depict the results of the constructive and destructive processes of nature which alter the earth's surface. No major changes were made in the exhibits of minerals and meteorites during the year.

The staff of the division of invertebrate paleontology and paleobotany were largely concerned with preparation of a display for the XVI International Zoological Congress, in cooperation with paleontologists of the U.S. Geological Survey. These exhibits emphasize some of the general principles employed and developed by staff members in their current research programs. Participating U.S. Geological Survey members include William A. Oliver, Jr., Allison R. Palmer, William J. Sando, Normal F. Sohl, and Dwight W. Taylor.

Science and Technology

Eight new exhibits destined for display in the halls of medicine, dentistry, and pharmacy in the new museum were temporarily installed in the gallery of medical sciences in the arts and industries building. They included units on the development of the microscope, medical and dental equipment, and displays of crude drugs. A



Installation of locomotive *Pioneer* in railroad hall of new Museum of History and Technology.

diorama portraying the performance of an operation in the amphitheatre of the Pennsylvania Hospital about the year 1805 was prepared. Dr. Alfred R. Henderson, consultant, specified exhibits which will recreate a corner of a ward in the Massachusetts General Hospital as it appeared in 1875 and the dental office of Dr. Edward H. Angle in Illinois during the period 1912-1920, as well as units on the development of surgery and of resuscitation equipment and techniques. Associate curator Sami K. Hamarneh, under whose scientific direction the three halls of medical sciences are being developed, completed plans for the display of an enlarged model of the human ear donated by the Lempert Institute of Otology. The great majority of the units for these halls have now been designed and produced.

Exhibits for the hall of tools, planned by curator Silvio A. Bedini in cooperation with exhibits designer Harry Hart, were nearing completion in the exhibits laboratory at year's end. Recently prepared units interpreted the subject of gear-cutting and tape control of machine tools. Being designed were displays of the hand tools of the blacksmith, cooper, wheelwright, pump-log maker, and woodworking trades. In mid-June 1963, artist R. McGill Mackall of Baltimore installed the first unit in the new hall of tools—a large background illustration showing skilled workmen fabricating marine propellers

in a large machine shop. The mid-19th century machine shop has been moved from its preparation site at Suitland to the new building and will be erected in early summer.

During the year exhibits were prepared for the phonographs and the locks sections of the hall of light machinery, and additional units were completed for the timekeeping section. A series of escapement models, and three dials for the centrally located clock tower—a feature exhibit of this hall—were in production. At year's end George Watson was installing the first exhibit in the light machinery hall—a mid-19th-century chronometer-maker's shop. Associate curator Edwin A. Battison and exhibits designer Barbara Bowes have cooperated in the planning and design of exhibits for this hall.

Under the direction of associate curator Robert M. Vogel, assisted by exhibits designers John Brown and Harry Hart, the development of the halls of civil engineering and heavy machinery progressed. With the completion of a series of wooden arches illustrating the American, Austrian and English systems of tunnel timbering, the production of exhibits for the civil engineering hall neared completion. Especially for this hall the Bethlehem Steel Co. fabricated a 10-foot diameter ring of cast iron segments such as are used for the lining of tunnels through soft ground. Mr. Vogel submitted detailed scripts for the internal combustion and steam engine, steam boiler, and hydraulic power sections of the hall of heavy machinery. Production of exhibits for this hall began in June 1963.

Head curator Robert P. Multhauf, assisted by exhibits designer Ronald Elbert, continued to plan the exhibits for the hall of physics and astronomy. Fourteen units were produced, most of which will appear in the applied physics section of the hall. Dr. Multhauf also began the specification of units for the section of this hall which will be devoted to mathematics and computers.

In December 1962 the division of physical sciences offered a special exhibition "Thirty-five Years with Electrons as Waves," commemorating the 35th anniversary of the discovery of the diffraction of electrons by crystals and the 25th anniversary of the award, for this discovery, of the Nobel prize in physics to Dr. Clinton J. Davisson and Sir George Paget Thomson.

Associate curator Bernard S. Finn assumed responsibility for the development and completion of exhibits in the hall of electricity. Design progressed on exhibits in the first third of this hall devoted to wired communications and power. Dr. Robert A. Chipman, consultant, submitted exhibits scripts for the second section, which will interpret radio communications. Dr. Finn made a study of the electrical exhibits in European museums which will be helpful to him in com-

pleting the plans for the exhibits in this hall. An Edison dynamo, restored by Roy V. LaRoche for display in the new museum, was placed upon exhibition in the present power hall.

Curator Howard I. Chapelle continued to prepare specifications for ship models which will round out the museum's outstanding collection of meticulously accurate scale reproductions of vessels illustrating the history of American watercraft. Assistant exhibits chief Benjamin W. Lawless prepared a layout study which will serve as a guide in the placement of fishing boat models in the wall cases in this hall.

During the month of June the locomotive *Pioneer*, of 1851, joined the Camden and Amboy coach of 1836 and the large Southern Railway locomotive on the rails of the railroad hall in the new museum. The Seattle cable car and its specially prepared base showing the heavy underground construction required for operation of this type of vehicle, as well as the old locomotive *Stourbridge Lion* and a modern diesel locomotive engine, were also placed in the hall. These full-scale objects will shortly be complemented by a series of models and specimens of equipment which will trace the history of railroads and street railways in the United States. The exhibits for this hall have been planned by associate curator John H. White in cooperation with exhibits designer Virginia Mahoney.

Museum specialist Donald Berkebile wrote the exhibits scripts for the automobile, carriage, truck, and the motorcycle sections of the automobiles and coaches hall of the new museum, and exhibits designer Fred Craig devised a layout plan for the placement of the vehicles in this hall. In the land transportation halls of the Arts and Industries Building a 1923 Franklin and a Mack Bulldog truck were placed on display.

Arts and Manufactures

In anticipation of the early installation of the hall of farm machinery in the new building, a number of improvements were made in the series of exhibits in the existing hall in the Arts and Industries building which will be transferred to the Museum of History and Technology in fall of 1963. Among the additions were a brightly renovated horse-drawn grain drill, and a number of scale models of human figures executed by Susan Wallace of the exhibits laboratory which help to give scale and add interest to the models of farm machinery.

Associate curator Edward C. Kendall, with the cooperation of consultant Carl Rishell and exhibits designer Riddick Vann, revised the exhibits layout for the hall of forest products and prepared detailed scripts for a number of the historical exhibits which will illus-

trate many uses of wood products. The carriage, saw, and gearing from an 18th-century water-powered saw mill was obtained from eastern Pennsylvania for restoration and exhibit in this hall.

Curator of graphic arts Jacob Kainen completed the script for the section of the hall of graphic arts which will interpret historical hand processes, and continued to acquire specimens for exhibition in this hall. An internally lighted, continuous-type wall-hung case was designed by assistant exhibits chief Benjamin W. Lawless for the special exhibition of prints and photographs in the new building. This case is also adaptable to the exhibition of books, tools, and other small specimens.

Associate curator Eugene Ostroff continued to revise the script for the hall of photography. A substantial number of new exhibits illustrating the development of photographic equipment and techniques will be available as the result of the interest and cooperation of a number of firms and individuals in the photographic industry.

The traveling exhibitions *Master of the Color Woodcut—John Baptist Jackson* and *Lithographs by Childe Hassam*, organized by the division of graphic arts, continued to be circulated throughout the country by the Smithsonian Traveling Exhibition Service.

Eight special exhibitions in graphic arts and nine featuring the work of outstanding contemporary photographers were shown during the year:

GRAPHIC ARTS

Recent accessions	June 1–July 29, 1962
Prints by Daumier and Gavarni	July 30–September 30, 1962
Contemporary prints from the collection	October 1–31, 1962
Etchings and drypoints by George O'Connell	November 1, 1962–January 8, 1963
19th-century advertising illustrations from the collection	January 9–February 3, 1963
Woodcuts of Unichi Hiratsuka	February 4–March 3, 1963
Intaglio prints by Cyril	March 4–31, 1963
Early masters of lithography	April 1–May 5, 1963
Etchings by Liliana Gramberg	May 6–June 2, 1963

PHOTOGRAPHY

Joseph Costa	June 14–July 30, 1962
Arthur d'Arazien	August 1–September 6, 1962
Richard Beattie	September 14–October 30, 1962
Richard Avedon	November 1–December 17, 1962
Harry Garfield	December 19, 1962–January 30, 1963
Philippe Halsman	February 1–March 17, 1963
Bert Stern	March 19–April 29, 1963
Alfred Eisenstaedt	May 1–June 12, 1963
Irving Penn	June 15–July 28, 1963

Curator Paul V. Gardner is making revisions in the plans for the hall of ceramics in order to include important specimens received during the year. The recently acquired 18th-century German and English porcelains given by Dr. Hans Syz, Mrs. W. A. Sutherland, and other donors have been placed on exhibition in the Natural History building. To honor the VI International Congress on Glass which convened in Washington July 8-14, 1962, the division of ceramics and glass assembled an outstanding exhibition of over 300 glass objects from the museum's collections and from several important private collections, including those of Franz W. Sichel, Ray Winfield Smith, Walter F. Smith, Jr., Jerome Strauss, and Raymond L. Suppes. This exhibition, which continued to August 18, traced the art of glassmaking from the earliest known objects to the present day. Many specimens displayed had not been previously exhibited or published. A catalog listing was provided for the delegates to the glass congress and an illustrated catalog with an explanatory text is in preparation. Fifteen exhibit units for the new hall of glass were produced in the laboratory during the year.

The automatic quilt case in the hall of textiles, which houses 10 quilts and brings them into view one at a time by means of push buttons, continues to be very popular with museum visitors. During the 7 months after a counter mechanism was installed in this display, quilts were brought into view more than 120,000 times. During the peak visitor season this exhibit is operated more than 1,000 times a day.

A special exhibition of the handweaving crafts of the Pi Beta Phi Settlement School, Gatlinburg, Tenn., was held in the rotunda of the Arts and Industries building during the month of July 1962. Hand loom demonstrations were given during the first week of this exhibition. Visitors to the Creative Crafts show, held in the Natural History building in September, had the opportunity to make bobbin lace on one of the division's lace pillows.

The American Petroleum Institute continued to render valuable assistance in the planning of exhibits for the new hall of petroleum. The raw material for the exhibit scripts has been assembled. Dr. Richard S. Boardman, curator of invertebrate paleontology, is collaborating with the acting curator of manufacturing and heavy industries (Dr. Philip W. Bishop) and Dr. George V. Cohee of the U.S. Bureau of Mines to ensure a presentation which will not duplicate subject matter interpreted in the hall of invertebrate paleontology of the Museum of Natural History. A model of the first fluid catalytic cracking plant, which began operation at Baton Rouge, La., in May 1942 to produce high-octane gasoline for the United States and

our allies in World War II, was placed on exhibition in the present petroleum hall. It was the gift of the Humble Oil and Refining Company in association with the M. W. Kellogg Company.

Dr. Clyde L. Cowan, Jr., of Catholic University cooperated with head curator Philip W. Bishop in the difficult task of preparing descriptive labels for exhibits for the new hall of nuclear energy which will give the layman, possessing little previous knowledge of the subject, an understanding of the technical and historical fundamentals. With the cooperation of many scientific laboratories in the United States and England, they obtained original laboratory equipment of models of such equipment which was important to the early progress of nuclear research.

Dr. Bishop also continued the planning of the halls of general manufacturing and iron and steel. On the initiative of Lowell L. Henkel, consultant, negotiations with the iron and steel industry, continued throughout the year, resulted in commitments for the majority of the exhibits proposed for that hall. A large part of the basic information required for the perfection of detailed plans for the general manufacturing hall was assembled.

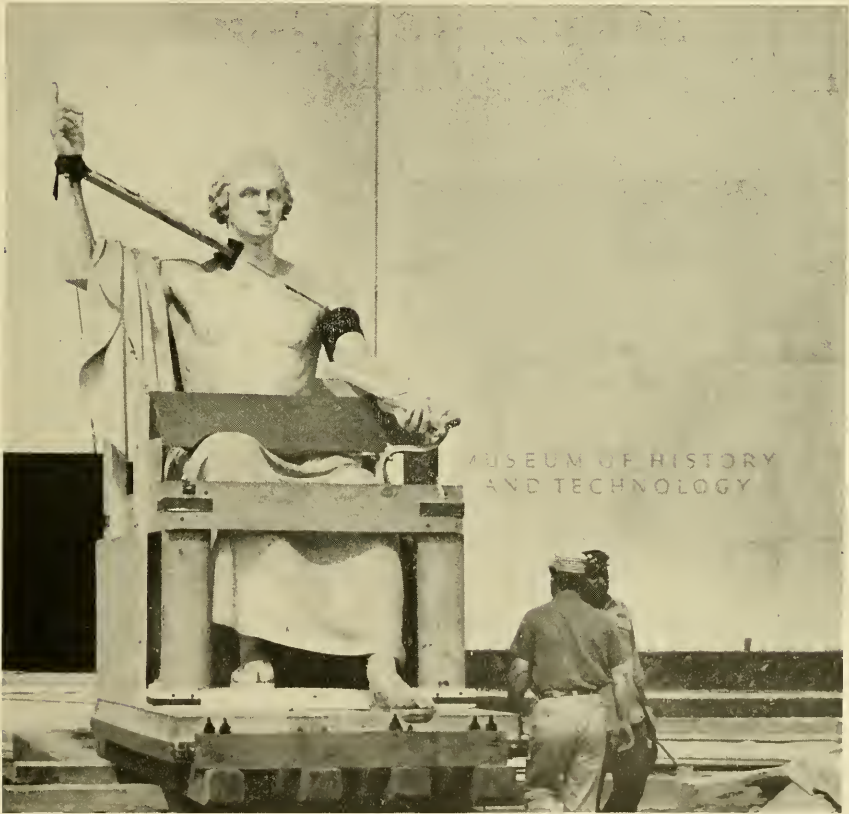
Civil History

On November 15, 1962, the fiftieth anniversary of the collection of dresses of the First Ladies of the White House was celebrated with the installation of the inaugural ball gown and cape of Mrs. John F. Kennedy in this unique exhibition. Mr. Laurence Hoes, son of Mrs. Rose Gouverneur Hoes, one of the founders of this collection, was present. Mrs. Kennedy's dress is displayed on a mannequin made of polyester resin which was sculptured in the museum's exhibits laboratory. This new material is a great improvement over the plaster of paris previously used because it is light in weight and at the same time resistant to breakage. Work continued during the year on painting the features of the mannequins of the First Ladies with natural color applied to the former colorless plaster. More than half of the group was completed. Associate curator Margaret Brown Klaphor specified the draperies, selected accessory furnishings, and revised the labels for the installation of this collection in the new building in the fall. Assistant exhibits chief Benjamin W. Lawless designed exhibits cases which will house the White House china and related artifacts.

Progress was made in the design and production of two other halls in the division of political history, to be installed in the new building during the coming year. Exhibits for the hall of historic Americans, planned by curator Wilcomb E. Washburn in cooperation with exhibits

designer Robert Widder, were nearing completion at year's end. Assistant curator Anne W. Murray continued to fit the historic women's dresses and men's suits on the mannequins to be exhibited in the hall of American costume as the figures were received. Four introductory panels were designed to symbolize the four centuries of American costume to be interpreted in this hall, and 15 exhibits were produced for the hall in the exhibits laboratory.

Two commemorative temporary exhibitions were offered during the year. The centennial of the Emancipation Proclamation was recognized in an exhibition of documents and objects relating to the antislavery movement, Abraham Lincoln's role in bringing forth emancipation, and the continuing struggle to achieve equality through the fifteenth amendment. The Bill of Rights exhibit, commemorating Bill



Horatio Greenough's statue of George Washington being moved to the new Museum of History and Technology from the Smithsonian Building in September 1962.

of Rights Day, December 15, was highlighted by a carved wooden figure of John Dickinson, Revolutionary patriot and publicist, attributed to William Rush, the first important native American sculptor. This figure was loaned to the museum by Mr. and Mrs. Joseph L. Graham of New York.

Twenty-five exhibits were produced for the new hall of everyday life in the American past. Among them was a series of units illustrating through selected specimens Spanish, French, British, Dutch, Flemish, German and Scandinavian influences upon early American home furnishings and thus upon the enrichment of American culture. The exhibits in the cultural history hall in the Museum of Natural History were removed in order to prepare these materials for exhibition in the new building. Under the direction of George H. Watson the woodwork and fireplaces of the period rooms were painstakingly dismantled and moved to the Museum of History and Technology. By year's end the Bliss and Ely house parlors and a Delaware log house were being erected, and all free-standing cases were placed in the new hall. Installation of this hall is under the direction of curator C. Malcolm Watkins. Exhibits chief John E. Anglim designed the exhibits with the assistance of Deborah Bretzfelder.

Assistant curator Cynthia Adams Hoover, in cooperation with exhibits designer Virginia Mahoney, developed plans for the new hall of musical instruments, which will feature a number of historic keyboard instruments that have been restored to playing condition. In February Mrs. Hoover directed an evening program of late 18th-century music played on contemporary instruments, including a newly restored Austrian grand piano made in 1788, two trumpets, and a one-keyed flute.

An unusual and difficult operation was successfully accomplished with the removal of Horatio Greenough's statue of George Washington from the chapel of the Smithsonian Institution to the central corridor of the second floor of the Museum of History and Technology, where it stands at the entrance to the series of halls which will interpret the growth of the United States. Exhibits scripts for three of the five halls of the growth of the United States series have been prepared by associate curator Peter Welsh in collaboration with Dr. Anthony N. B. Garvan, Chairman of the Department of American Civilization, University of Pennsylvania. Dr. Garvan also assisted the museum in acquiring a wide range of notable objects for these displays. Exhibits designers Robert Widder and Nadya Kayaloff prepared detailed layout drawings for many of the units in two halls of this series. George Watson restored an 18th-century Pennsylvania water wheel and gear train which will illustrate the ingenuity and

skill of the colonial millwright and demonstrate the use and transmission of power in colonial times.

The production of exhibits for the hall of philately was begun and 18 units were completed, among them a series of displays on the history of the post in the District of Columbia. Associate curator Francis J. McCall and assistant curator Carl H. Scheele prepared scripts for the several series of exhibits in this hall devoted to the history of the posts in this country and abroad, methods of postal transportation, metering devices, and the design and production of United States stamps. Exhibits designer John Clendening is preparing the detailed layouts for these units. At the same time the mounting of the extensive collections of stamps from all countries, for display in vertical pull-out frames around the perimeter of this hall, is going forward.

The division of philately offered two major temporary exhibitions during the year. During September 1962 a display of rare historic British stamps was presented with the cooperation of the General Post Office, London, and the Crown Agents. Among the unusual items shown was the original post office order book appointing Benjamin Franklin as Deputy Postmaster of North America. On June 6, 1963, an exhibition of stamps from more than 100 nations was opened to commemorate the current worldwide Freedom from Hunger Campaign. Both exhibitions were held in the rotunda of the Arts and Industries building.

Armed Forces History

Curator of military history Edgar M. Howell, curator of naval history Philip K. Lundeberg, and associate curator of naval history Melvin H. Jackson continued to write scripts and provide technical supervision of the design and production of exhibits for the new Museum of History and Technology. The designer of these is Fred Craig. For the naval history exhibits models were obtained of the Civil War steam sloop-of-war *Hartford*, Admiral Farragut's flagship of "damn the torpedoes" fame at the battle of Mobile Bay; the submarine *Holland*; the frigate *Congress*; an example of a "Jefferson gunboat"; and the Coast Guard cutter *Storis*. Among the exhibits produced during the year were units interpreting the roles of the Army in the Mexican War, in frontier service during the mid-19th century, and in the Civil War; and others depicting the service of the Navy in the Mexican and Civil Wars.

Associate curator of military history Craddock H. Goins continued to plan exhibits for the hall of ordnance. Production of these, which

are being designed by John Brown, was nearing completion by year's end. Among them were displays interpreting the interchangeable parts system of manufacturing, a significant development in the history of firearms; the development of land artillery and naval guns; and the history of tanks and armored warfare. Exhibits associated with the original Continental gunboat *Philadelphia*, to be displayed at the west end of this hall, were planned by Dr. Lundeborg. These include original items of equipment recovered with the gunboat from the waters of Lake Champlain and graphic materials which help to explain the Battle of Valcour Island on October 11, 1776, in which this gunboat participated.

Mr. Howell continued to supervise the preparation of the Star-Spangled Banner for exhibition in the central rotunda of the new building. During fall of 1962 skilled seamstresses sewed tapes to the flag backing which will serve to support this great national treasure in its prominent new location.

During the year British decorations and service medals were placed on view in the military hall, along with a British infantry accompanying gun captured at the battle of Saratoga and a rare Model 1866 Gatling gun. The division of naval history sponsored and cooperated in the installation of the United States Coast Guard's exhibit, interpreting that organization's many services during its 174 years of existence, in the rotunda of the Arts and Industries building. In spring of 1963 half models, paintings, prints, and items from the Farragut and Wilkes collections were loaned for the U.S. Navy exhibit at the Musée de la Marine in Paris.

Accessions

During The Fiscal Year 1963

The national collections were increased during the past year by 1,723,830 specimens. These materials were distributed among the 8 departments as follows: anthropology 11,993; zoology 1,361,586; botany 69,642; geology 80,414; science and technology 2,588; arts and manufactures 2,910; civil history 191,753; and armed forces history 2,944. The total includes 178,626 stamps and 1,209,339 insects. Most of the accessions were received as gifts from individuals or as transfers from Government departments and agencies. A full list of donors will be found on page 116.

SPECIMENS IN THE NATIONAL COLLECTIONS MAY 31, 1963

DEPARTMENT OF ANTHROPOLOGY	942, 511
Archeology	719, 344
Ethnology	185, 413
Physical Anthropology	37, 754
DEPARTMENT OF ZOOLOGY	30, 436, 336
Mammals	302, 649
Birds	504, 983
Reptiles and Amphibians	155, 338
Fishes	1, 744, 672
Insects	15, 978, 513
Marine Invertebrates	1, 933, 983
Mollusks	9, 765, 365
Helminths	50, 833
DEPARTMENT OF BOTANY	3, 075, 620
Phanerogams	1, 943, 120
Ferns	237, 193
Grasses	391, 529
Cryptogams	465, 130
Plant Anatomy	38, 648
DEPARTMENT OF GEOLOGY	13, 109, 892
Mineralogy and Petrology	405, 295
Invertebrate Paleontology and Paleobotany	12, 658, 660
Vertebrate Paleontology	45, 937
DEPARTMENT OF SCIENCE AND TECHNOLOGY	73, 472
Physical Sciences	3, 832
Mechanical and Civil Engineering	10, 375
Electricity	5, 537
Transportation	25, 263
Medical Sciences	28, 465

DEPARTMENT OF ARTS AND MANUFACTURES	145, 573
Textiles	34, 366
Ceramics and Glass	16, 384
Graphic Arts	50, 141
Manufactures and Heavy Industries	34, 471
Agriculture and Forest Products	10, 211
DEPARTMENT OF CIVIL HISTORY	9, 708, 702
Political History	46, 618
Cultural History	20, 996
Philately and Postal History	9, 500, 717
Numismatics	140, 371
DEPARTMENT OF ARMED FORCES HISTORY	49, 664
Military History	40, 075
Naval History	9, 589
TOTAL MUSEUM COLLECTIONS	57, 541, 770

Anthropology

Most of the material accessioned in the division of archeology is in a collection of 8,431 specimens from Alaska, gathered for the museum by Dr. J. A. Ford, and comprising the subject of his recently published monograph, "Eskimo prehistory in the vicinity of Point Barrow." Three important collections of Iranian materials, ranging in time from about 2000 B.C. to the 3d century A.D. and including several pieces that will be used in new exhibits, were presented by Mr. and Mrs. Anthony Cuomo, Mr. and Mrs. Daniel F. Magner, and C. Edward Wells. James P. Mandaville, Jr., donated North Arabian pottery and terra cotta figurine fragments, and an inscribed copper hoe blade, from the beginning of the Christian Era to the early Islamic period. Coming from one of the least known areas in the Middle East, these items constitute a very useful addition to the study collections. A rare anthropomorphic pottery figure from the Bahia culture of the Esmeraldas region, Ecuador, was obtained from Mrs. Erika Burt. The North American study collections were expanded by acquisition of survey materials from Virginia sites presented by Dr. C. G. Holland and by Maryland materials from R. E. Stearns.

The largest single accession of the year is a collection of 50,000 somatotype photographic negatives received by the division of physical anthropology from the U.S. Army Research Institute of Environmental Medicine. Made during the U.S. Army survey of male body build in 1945-46 under direction of E. A. Hooton, they form the basis for the Harvard system of rating body build. The collection, largest of its kind, will be available for study only by qualified professionals.

Useful for study and exhibit purposes are a new set of casts of the original Neanderthal skeleton, gift of the Rheinisches Landesmuseum, Bonn, Germany, and excellent casts of *Oreopithecus* from central Italy, received from the Natural History Museum in Basel, Switzerland. Other accessions include human skeletal materials from Mexico, Alaska, and various parts of the United States.

In the division of ethnology, under the exhibits modernization program, 365 Chinese specimens were obtained from Taiwan with assistance of the National Historical Museum and the Provincial Museum and under direction of the Ministry of Education and the Academia Sinica. This includes material to represent six cultural themes in exhibits now in the detailed planning stage. The government of Viet Nam, through its embassy, donated 67 specimens of textiles, bronze vessels, and wooden chests. Traditional court costume from Indonesia is represented by 25 items presented by His Highness, Sri Paku Alam VIII, through the American embassy in Djakarta. A collection of 103 ornaments, household items, and weapons of the Burundi people was obtained from David W. Doyle, American vice-consul at Usumbura, Burundi, especially for use in future exhibits. Already on display is a large wooden tamborin house figure from New Guinea, obtained from John H. Brandt. Herbert G. Deignan, former curator of ornithology, presented 43 weapons and other objects from North Borneo and North Thailand.

Zoology

Principally as the result of intensive field activity by staff members and cooperating agencies, approximately 9,200 specimens have been added to the mammal collections. The larger collections were made in Panama by Dr. Charles O. Handley, Jr., and Francis M. Greenwell; in Formosa, by U.S. Naval Medical Research Unit No. 2; in Turkey, by Dale Osborn; in Libya and Iran, by Gary L. Ranck; in West Pakistan and Mexico, by the Department of Microbiology of the University of Maryland School of Medicine; and in the Malagasy Republic, by Kenneth I. Lange and James H. Shaw. Dr. Henry W. Setzer of the museum staff participated in the latter three projects. Other valuable collections were made in Ruanda-Urundi by Alena Elbl of the University of Maryland, in Nicaragua by Dr. L. G. Clark of the University of Pennsylvania, and in southern Mexico by William J. Schaldach, Jr. Individual specimens of outstanding importance are a large male walrus collected for the exhibition series by Hugh H. Logan, and two paratypes of the bat *Philippinopterus lanei*, presented by Dr. Edward H. Taylor.

A total of 2,259 bird skins and 1,011 anatomical specimens were received in the division of birds. Outstanding collections include 608 skins, 21 skeletons, and 1 egg from Panama, and 198 skeletons from Kenya, received through Dr. Alexander Wetmore; 642 skins, 128 skeletons, and 9 alcoholic specimens from the U.S. Fish and Wildlife Service; 198 skins from Formosa by transfer from U.S. Naval Medical Research Unit No. 2, through Dr. Robert E. Kuntz; and a collection of wooden gamebird calls, together with tape recordings demonstrating their use, from Dr. Augusto Ruschi, director Museu de Biologia—"Prof. Mello Leitão," Brazil.

Noteworthy additions to the collection of the division of reptiles and amphibians comprise a gift of 325 Colombian frogs, including types and paratypes, from Brother Nicéforo María, Bogotá, Colombia; a gift of 162 reptiles and amphibians collected in Mexico and Central America from Elkan J. Morris, Fairbanks, Alaska; 71 reptiles and amphibians collected for the Museum in Panama by Charles O. Handley, Jr., and Francis M. Greenwell; 70 amphibians collected for the Museum from South America and Panama by Mrs. Doris H. Blake and Dr. Doris M. Cochran; an exchange of 27 Colombian frogs with the Chicago Natural History Museum; and an exchange of 21 Brazilian frogs with Werner C. A. Bokermann, São Paulo, Brazil.

Among the 838 specimens received on exchange by the division of fishes from Dr. Wolfgang Klausewitz, Frankfurt, Germany, was the holotype of a new *Dascyllus*. In addition holotypes have been received from Drs. Giles W. Mead and Henry B. Bigelow, Museum of Comparative Zoology, Harvard University; Dr. George S. Myers, Stanford University; and Loren P. Woods, Chicago Natural History Museum. Paratypes have been received from Dr. C. Richard Robins, University of Miami, Marine Laboratory; Dr. George S. Myers; Dr. Norman J. Wilimovsky, University of British Columbia; Dr. Robert R. Miller, University of Michigan; Dr. Edward C. Raney, Cornell University; Dr. Jacques R. Géry, Laboratoire Arago, France; and Dr. José Alvarez del Villar, Instituto Politécnico Nacional, México. Nine filing cases of valuable illustrations of fishes, published in past volumes of their publications, were transferred from the U.S. Fish and Wildlife Service. Other important accessions include 2,625 fishes from Dr. Daniel M. Cohen, Harvey R. Bullis, Jr., and Dr. A. R. Longhurst. Under separate accessions, 503 fishes have been received from Frederick H. Berry, Dr. Frank J. Hester, Susumu Kato, Herbert C. Perkins, Dr. Donald W. Strasburg, and Paul J. Strusaker. Martin Moe, Florida State Board of Conservation, donated 2,905 fishes from Florida, and Horace Loftin and Dr. Ralph W. Yerger sent, on ex-



Research associate Alexander Wetmore and associate curator George Watson examine part of collection of South American game-bird calls, gift of Dr. Augusto Ruschi of Brazil.

change, 10,000 freshwater fishes from the Panama Canal Zone, collected by Mr. Loftin.

The division of insects received a total of 1,209,339 specimens in 327 separate transactions. The largest single accession ever received by the division is a collection of Coccidae (scale insects), conservatively estimated to contain 1,000,000 specimens, transferred from the U.S. Department of Agriculture through Dr. William H. Anderson. Additional important collections include the Harold E. Box collection of Neotropical cane-boring moths of the genus *Diatraea* comprising some 5,000 specimens; a donation of 8,000 North American butterflies and moths by Dr. George W. Rawson; the acquisition of the J. C. Hopfinger collection of butterflies and moths; 6,741 specimens, mostly Coleoptera, from William W. Pinch; 805 Brazilian insects from Dr. C. M. Biezanko; 6,543 British Columbian insects from C. B. D. Garrett; 6,612 specimens from N. L. H. Krauss, who has been a devoted contributor for many years; 2,000 specimens from Guatemala from Thomas H. Farr; 2,600 specimens, mostly leafhoppers collected in

India, from Dr. Paul W. Oman, Entomology Research Division, Agriculture Research Service, U.S. Department of Agriculture; and 3,292 additional specimens from the large collection made in Liberia by Dr. C. C. Blickenstaff.

Additions made by the staff include 1,454 Neotropical insects from Mrs. Doris M. Blake; 1,500 specimens from Mrs. Mary M. Quigley; 285 specimens, chiefly Orthoptera, from Dr. Ashley B. Gurney, U.S. Department of Agriculture; 900 specimens, mostly European centipedes, from Dr. Ralph E. Crabill, Jr.; 41,110 specimens collected in Puerto Rico, Virgin Islands, and North America from Dr. Paul J. Spangler; 400 specimens of butterflies from the eastern United States from William D. Field; 1,192 miscellaneous insects, chiefly caddisflies, from Dr. Oliver S. Flint, Jr.; 7,826 specimens, mostly Microlepidoptera, from the northwestern United States from Dr. J. F. Gates Clarke; 1,000 specimens collected in Libya from Gary L. Ranck of the division of mammals; and 369 specimens, including 11 holotypes, of wasps and bees from Dr. Karl V. Krombein, U.S. Department of Agriculture. By transfer from the Insect Identification and Parasite Introduction Research Branch, U.S. Department of Agriculture, 62,617 specimens were accessioned. Others making important donations to the collections are Bernard Feinstein, formerly of the Museum staff, who donated a series of buffalo lice from Viet Nam; and Drs. Nell B. Causey, George E. Ball, W. L. Brown, and Richard L. Hoffman, all of whom made valuable additions to the collections of myriapods.

Among a record number of collections formally accessioned for the division of marine invertebrates were several of unusual importance. Leslie Hubricht of Meridian, Miss., donated his personal collection of 32,327 freshwater invertebrates, containing what is probably the largest and most valuable series of American freshwater isopod crustaceans ever brought together. Final processing of material received from the Fourth Smithsonian-Bredin Caribbean Expedition in 1960 revealed a total of 33,177 marine invertebrates from Yucatan and the Cayman Islands. From the Paleontology and Stratigraphy Branch, U.S. Geological Survey, through Dr. Harry S. Ladd, came 1,079 corals from the Marshall Islands, including 217 type and figured specimens described by Dr. J. W. Wells in his comprehensive monograph on Indo-Pacific reef corals. Three transactions covering material collected by the exploratory fishery investigations of the Pascagoula Fishery Station of the Bureau of Commercial Fisheries, U.S. Fish and Wildlife Service, added 3,384 important marine invertebrates to the national collections. An accession containing 852 copepod and isopod crustaceans, including 7 holotypes, and 7 allotypes,

and 594 paratypes of 15 species of copepods, was received from Boston University, through Dr. Arthur G. Humes. From the Beaudette Foundation for Biological Research, through Dr. J. Laurens Barnard, were received 974 isopod and 322 amphipod crustaceans, including holotypes, allotypes, and 198 paratypes of 4 species of isopods described by Dr. Robert J. Menzies.

Accessioned for the division of mollusks were 3,160 lots comprising 23,967 specimens. Among them were 3,895 specimens from North Borneo, purchased through the Chamberlain Fund. A collection of 198 lots, 1,194 specimens, of marine and land mollusks was made for the museum on Eniwetok Atoll by Dr. Joseph Rosewater. Mr. and Mrs. Delmas H. Nucker donated 145 lots containing 699 specimens of marine mollusks from the Caroline Islands, and Dr. Tadashige Habe added 120 specimens, of which 28 are paratypes, of recently described mollusks from Japan. Holotypes of molluscan species and subspecies were received from Dr. Raul Guitart, Dr. Harry W. Wells, Leslie Hubricht, Thomas L. McGinty, and William G. Percy and from the U.S. Fish and Wildlife Service Laboratory, Pascagoula, Miss., through Harvey R. Bullis, Jr. A total of 1,257 helminthological specimens, among which were many types of new species, were added to the collection housed in the Parasitological Laboratory of the Animal Disease and Parasite Research Branch, U.S. Department of Agriculture.

Botany

A fine collection of 4,143 herbarium specimens and 480 wood samples was presented by Boris A. Krukoff, Smithtown, N.Y., adding appreciably to the Museum's representation from Brazil. Among them was a group of woods from laticiferous plants on which anatomical research was planned by Mr. Krukoff. Dr. José Cuatrecasas gave 3,200 specimens which he collected in Colombia. Other gifts included 620 excellent specimens of Pennsylvania plants from Muhlenberg College, Allentown, Pa.; 850 cryptogams, mostly mosses, from Dr. F. J. Hermann, Adelphi, Md.; and 504 specimens from the University of Alaska.

Several large collections were received in exchange. A group of 845 slides of pollen of African plants was received from Duke University through Mrs. Shirlee Cavaliere and 765 slides from the Pan American Petroleum Corporation of Tulsa, Okla., through Dr. Donald W. Engelhardt. The Gray Herbarium of Harvard University sent 1,037 specimens collected by Dr. L. J. Brass on the 4th Archbold Expedition to New Guinea. Other exchanges included 845 specimens of Asia and eastern Europe from the V. L. Komarov Institute of Botany,

Academy of Sciences, Leningrad, U.S.S.R.; 888 specimens collected in Mexico by Dr. Faustino Miranda from the Instituto de Biología, Universidad Nacional de México; and 382 plants of Australia from the Commonwealth Scientific and Industrial Research Organization, Melbourne.

Dr. John J. Wurdack collected 9,259 specimens in Peru; Drs. R. S. Cowan and Thomas R. Soderstrom collected 3,370 specimens in British Guiana; and Dr. William Stern collected 439 specimens in Oregon, Wyoming, and Colorado.

From the Geological Survey, Department of the Interior, were transferred 801 specimens collected on the Pacific Islands by Dr. F. R. Fosberg; from the Fish and Wildlife Service, Department of the Interior, 420 plants collected in Alaska by Frank Beals; and from the Agricultural Research Service, Department of Agriculture, 235 specimens collected in Iran and Mexico by Dr. Howard Scott Gentry.

Geology

A total of 3,885 specimens was received in the division of mineralogy and petrology. Among the important gifts are very fine specimens of legrandite, Mapimi, Mexico, from Bernard T. Rocca, Sr., and an exceptional specimen of fairfieldite, King's Mountain, N. C., from Carter Hudgins. Outstanding among specimens received by exchange was a collection of cerussite, azurite and associated minerals from Tsumeb, South West Africa; a crystal of vivianite, 31 inches in length from the Cameroons; and a fine piece of malachite, from the Congo. New species received in exchange were: calumetite, Michigan; angel-elite, Argentina; arsenate-belovite, fersmite, gerasimovskite, kupletskite, lomonosovite, and vinogradovite, from the U.S.S.R., bafertisite, Inner Mongolia; bergenite, East Germany; bonattite, Canada; carobite and cuprorivaite, Italy; hydroamesite, Hungary; reinerite, stranskiite and gallite, South West Africa; and schnetteite and wightmanite, California. The matrix of a tourmaline crystal from Baja California, Mexico, was received in exchange from Miss Josephine Scripps after she had seen the photograph of the crystal in the *Lapidary Journal*.

A total of 815 specimens were added to the Roebbling collection by purchase or by exchange. Among these are outstanding specimens of wulfenite, calcite, and agate from Mexico. Gem specimens include a 17-carat greenish yellow brazilianite, from Brazil; a 30-carat cat's eye cerussite, from South West Africa; and a 9.35-carat axinite from Baja California, Mexico.

Acquired by purchase from the Canfield fund is a magnificent group of amethyst quartz crystals from Guerrero, Mexico. The largest crystal measures 4 by 18 inches, and each is tipped by white quartz.

New acquisitions to the gem collection include a 2.86-carat deep pink diamond, Tanganyika, from S. Sydney De Young; a 235.5-carat morganite, Brazil, from Mr. and Mrs. Frank IX, Jr., a 277.9-carat citrine, Brazil, from Albert Cutter, and a 177-carat kunzite, California, from the American Gem Society. Gem specimens acquired by purchase from the Chamberlain fund for the Isaac Lea collection include a 17.5-carat pink tourmaline cat's eye, and a 4,500-carat faceted smoky quartz egg, both from California; and a 9-carat axinite, from Baja California, Mexico.

During the year 20 meteorites were added to the collection, of which 11 were not previously represented. The Bogou meteorite was of special interest. The 8.8-kilogram coarse octahedrite, which came to the



Amethyst quartz crystals from Guerrero, Mexico. The largest measures 4 by 18 inches.

Museum through the generous cooperation of the Government of Upper Volta and the United States Atomic Energy Commission, was observed to fall in Upper Volta on August 14, 1962. It is being extensively studied in several laboratories because observed falls of iron meteorites are extremely rare.

In the division of invertebrate paleontology and paleobotany, transfers of type specimens from the U.S. Geological Survey included 68 Permian pelecypods described by K. Ciriaks of Columbia University; 369 specimens of Upper Cretaceous oysters from the Western Interior; 40 Permian corals from Nevada with thin sections; and 33 specimens and 87 thin sections of Middle Silurian corals from Quebec, described by W. A. Oliver, Jr.

Funds from the Walcott bequest were used to purchase the Hughes collection of Tertiary invertebrates from Florida, numbering more than 50,000 specimens, and for the collection of 4,000 Upper Cretaceous mollusks from the western interior; 5,000 Tertiary invertebrates from Hampton, Va.; 2,000 fossil echinoids from southwestern Florida. The Springer fund made possible the purchase of 210 Triassic echinoids and 72 Paleozoic echinoids from the western United States.

Other important specimens received as gifts include 221 type specimens of planktonic Foraminifera from Recent bottom sediments of the Pacific Ocean, from Miss Frances Parker of the Scripps Institution of Oceanography; 1,000 Upper Cretaceous mollusks from Tennessee and Mississippi, arranged by Margaret J. Hall through the Mid-South Earth Science Club; 6,000 Silurian brachiopods from Czechoslovakia, collected by Dr. A. J. Boucot of the California Institute of Technology; 134 type specimens of Foraminifera from the Cretaceous Adelpia Mark of Arkansas, from Dr. H. C. Skinner, Tulane University; 500 specimens of Middle Devonian brachiopods and corals from Northern Ohio from Bernard Keith; 100 Early Devonian invertebrates from Flute Cave, W. Va.; from the Potomac Speleological Club; 50 specimens of early Ordovician brachiopods from Kielce, Poland, by Dr. Robert B. Neuman; 23 rare and unusual Miocene mollusks from Virginia by Mr. and Mrs. William M. Rice; and of some 52 thin sections of type Foraminifera from the Mississippian of southern Illinois and Kentucky from Mrs. D. E. N. Zeller of the University of Kansas.

Outstanding specimens exchanges brought 76 specimens of Pliocene mollusks from the Scaldesian formation of Belgium, through Dr. S. Amelinckx; 99 specimens of fossil invertebrates from Argentina through Dr. Arturo J. Amos; 13 ammonites from the Cretaceous of Russia through Dr. D. P. Naidin; and the Harris collection of type specimens of fossil crinoids, from the University of Houston.

In the division of vertebrate paleontology, the major specimens of fossil vertebrates accessioned this year consist of two skulls and a skeleton of three different tetrapods from the Permian of Texas, and two partial skeletons of Mississippian amphibians, probably new to science, from West Virginia. The Texas material is of superior quality and will be most useful in morphological work. These specimens were collected by Dr. Nicholas Hotton III of the museum staff and James W. Kitching of the University of the Witwatersrand, Johannesburg, South Africa.

A remarkably good collection comprising remains of a variety of Eocene mammals found by W. L. Rohrer in the Big Horn Basin of Wyoming was transferred from the U.S. Geological Survey. Noteworthy are skull portions of the large pantodont coryphodon, jaws and maxillae of the early horse *Hyracotherium* and the lemuroid primate *Pelycodus*, and the greater part of a skull of a rare leptictid insectivore.

Science and Technology

The Bell Telephone Laboratories presented to the division of physical sciences the apparatus used by Dr. Clinton T. Davisson in his 1927 investigations of interference phenomena in crystals irradiated by electrons, for which he received the Nobel Prize in Physics in 1937. Received also was a full-scale reproduction of an observational armillary, one of the large astronomical instruments used by Tycho Brache, from L. C. Eichner. A sectioned model of a 1962 microscope showing the optical system was presented by E. Leitz Company. A large collection representing the history of the water meter was donated by A. A. Hirsch.

The division of mechanical and civil engineering received an important early example of steam turbine power (1905), a Parsons turbine with direct-connected direct-current generator. The machine was presented by the San Francisco Naval Shipyard, Department of the Navy, through Eduardo Magtoto, General Superintendent, Varadero de Mainila, Republic of the Philippines, and Rear Admiral Charles E. Curtze. Among a number of bridge models received is a model of the famed bridge, "Colossus," the original of which was the longest timber span for a century following its construction in 1812. The section of tools received from the Pratt & Whitney Co. the Rogers Bond comparator no. 2, the first instrument in this country used to transfer the length of a standard by microscope measurement and to subdivide it directly, converting line-standard to end-standard measurement. The section of light machinery acquired from American Watchmakers Institute the James Ward Packard collection of complex watches.



Restored farm wagon of 1860, donated to the Museum by A. W. Berkebile.

Senator Leverett Saltonstall, Regent of the Smithsonian, presented a piano-box buggy and a fine set of silver-mounted coach harnesses to the section of land transportation. A beautifully-restored and fully documented farm wagon of 1860 was donated by A. W. Berkebile. The section of marine transportation acquired several fine ship models, among them models of the downeaster *Emily F. Whitney* and the Pittsburgh and Cincinnati steam packet *Buckeye State*.

The division of medical sciences lists its most important acquisition as a 17th-century Lambeth Delft pill tile bearing the coats of arms of the City of London and of the Worshipful Society of Apothecaries, received from Chas. Pfizer and Company, Inc. Other gifts include the first ionization X-ray condenser dosimeter developed and donated by Dr. Otto Glasser; and a Cambridge indicator dye-dilution curve apparatus, from Dr. Alfred Henderson.

Through the generosity of Franklin Wingard, the division of electricity acquired a large collection of radio material which greatly strengthens its holdings in this field.

Arts and Manufactures

The division of textiles received an especially well-executed 19th-century applique and stuffed work quilt from Stewart Dickson. A

silk slumber throw was presented by Commander and Mrs. James P. Oliver, John P. Oliver, and their aunt, Ruth P. Hall. A very fine Brussels needlepoint and bobbin applique lace collar and a gros point de Venice lace cape were presented by Mrs. Herbert May. A group of seven beautiful oriental rugs, presented by Mrs. Clara W. Berwick, included examples of wool and silk rugs in both the Sehna and Ghiodes knot technique.

The division of ceramics and glass acquired from Mrs. Ellouise Baker Larsen, Lima, Ohio, her entire collection of Staffordshire ware. This index collection, consisting of about 900 pieces, is the most important assembly of these ceramics in America. Mrs. Larsen has spent more than 30 years compiling data and gathering the representative pieces, many of which are extremely rare. Hugh D. Auchincloss, McLean, Va., donated five pieces of ancient glass illustrative of the high degree of artistic skill of the glassmakers when Rome dominated the Mediterranean. Dr. Hans Syz, Westport, Conn., presented another group of 18th-century German porcelains including fine pieces from Meissen, Höcht, Ludwigsburg, Nymphenburg, and Furstenberg. From the estate of Mrs. Helen A. Mosher came a fine collection of representative English ceramics. Mrs. W. A. Sutherland continued her generous gifts of English porcelain.

An important accession of the division of graphic arts was the color aquatint *La Promenade Publique*, by Philibert-Louis Debrucourt, generally considered to be the finest example of French color printing of the last quarter of the 18th century. Other outstanding accessions were a chiaroscuro woodcut, *The Death of Ananias*, after Raphael, executed about 1530, by Ugo da Carpi, who is accepted as the first and most important of the Italian chiaroscuro woodcutters; and *The Fountain of Trevi*, one of the most desirable subjects from Giovanni Battista Piranesi's great series of etchings, "Veduta di Roma," published in 1765.

The eminent Hungarian artist, Joseph Domjan, now an American citizen, donated his highly original woodcuts, *Starlit Night*, *Peacock of the Carnations*, and *Moon-Shine Peacock*. Through its President, Prentiss Taylor, the Society of Washington Printmakers presented the color lithograph, *Black Fire*, by Jack Perlmutter. Mr. Taylor, a well-known Washington artist, also donated his lithograph *La Presa-Marfil*, together with the original preliminary drawing of the subject, the transfer drawings, and the zinc plate used in printing.

The section of photography acquired some notable additions to its historical collections as well as items representative of significant current developments. The Eastman Kodak Co. presented a match-box camera developed for the Office of Strategic Services during

World War II, a 1922 cine-camera, Model-A, their first motion picture camera, and several cutaway cameras illustrative of design changes. Dr. Harold E. Edgerton donated a pair of deep-sea stereo cameras of his design. These were first used in 1954 by Captain Jaques Yves Cousteau and the Woods Hole Oceanographic Institution.

President John F. Kennedy, through the U.S. Atomic Energy Commission, transferred a cube of uranium fuel used by Enrico Fermi in the world's first controlled neutron chain reaction (December 2, 1942). Other noteworthy donations to the division of manufacturing and heavy industries include a collection of tinware of more than 300 items, covering the whole range of the 19th-century tinsmith's art, from Kenneth Jewett. From the Army Nuclear Power Program was obtained a model of the first land-based nuclear power plant (SM-1), the prototype of small reactors being developed for the use of the U.S. Army in the field, while the Oak Ridge National Laboratory provided a display showing the method of fabrication of the fuel elements used therein. The section of iron and steel was suc-



Hoehst tureen, gift of Dr. Hans Syz. The cover, with a putto knob, is decorated on a white ground with the "Gotzowsky" relief pattern "erhabene Blumen" and with bouquets of flowers in multicolour. The rim is decorated with a gilt pattern. Modeled by L. Russinger, its height is 10½ inches and length 13 inches.

Inaugural ball gown worn by First Lady Jacqueline Bouvier Kennedy, wife of the President, was added to the collection of dresses of the First Ladies of the White House in November 1962, at the celebration of the 50th anniversary of the beginning of the collection.



cessful in locating the original Ajax-Wyatt electric induction furnace, which was transferred by the Ajax Magnethermic Corporation.

The division of agriculture and forest products received from Minneapolis-Moline Incorporated a 1918 Moline Universal Model D tractor with a 2-bottom plow attached. The tractor is notable for its use of electrically operated accessories. Another historical item acquired by the division is an 1869 portable steam engine, the first made by J. I. Case and donated by the company.

Civil History

Among the important accessions received in the division of political history is the gift from Mrs. John F. Kennedy of her Inaugural Ball gown and cape, made of peau d'ange covered with several layers of

white silk chiffon. Mrs. Kennedy also presented her dress of white ottoman silk worn at the Inaugural Gala on January 19, 1961. Items of clothing worn by Presidents William Howard Taft, Theodore Roosevelt, Calvin Coolidge, and Woodrow Wilson were presented by Charles P. Taft, Ralph E. Becker, John Coolidge, and the National Trust for Historic Preservation, respectively. A handsomely bound book presented to Theodore Roosevelt by the Faculty Club of the University of California, *The Silva of California*, was given by his grandson Cornelius Van S. Roosevelt. A number of items, including a fan, a brown satin apron, and other articles of the clothing which belonged to Dolley Madison were donated by her great-great-grand niece, Miss Barbara Donald. Mrs. Herbert A. May donated the famous Napoleon diamond necklace, presented by the Emperor to his wife, the Empress Marie Louise, on the occasion of the birth of their son, the King of Rome.

To the collections of the division of cultural history were added an important block-front tall clock from Rhode Island, a Philadelphia "pie crust" table, and other significant items, donated by Mrs. Francis P. Garvan; Mrs. Harry T. Peters and her children, Harry T. Peters, Jr., and Mrs. Charles D. Webster, presented eleven large folio lithographs by Currier & Ives and others, a valuable addition to the nearly 2,000 prints given by this family. Mr. & Mrs. A. Philip Stockvis gave a varied group which includes an American Chippendale armchair. For the musical instruments collection, the Le Blanc Corporation presented a basset horn, contra-bass clarinet, bass clarinet, and two alto clarinets.

The division of philately and postal history added 178,626 specimens to its collections. One of the most significant of the recent gifts came from Bernard Peyton of Princeton, N.J., who gave a cover used in the Confederate States, to which is affixed a block of twelve 2-cent Jackson Confederate stamps. This is the largest known block of these stamps on a cover. Funds donated by the Charles and Rosanna Batchelor Memorial, Inc., made possible valuable additions to the Emma E. Batchelor airmail collection.

The division of numismatics received significant contributions of rare half dollars from R. E. Cox, Jr., of Fort Worth, Tex. Extensive donations by the Messrs. Stack of New York City included original drawings for United States patterns and medals, and Harvey Stack gave a hitherto unknown variety of the extremely rare Indian Peace Medal, portraying President George Washington, dated 1843 and distributed by one of the fur trading companies in the Missouri Territory. To our holdings in modern coins the Honorable R. Henry Norweb of Cleveland, Ohio, contributed a virtually complete collection

of Newfoundland issues dating from 1865 to 1947. Willis H. duPont of Wilmington, Del., added to his previous donations of Russian coins and medals formerly owned by the Grand Duke Mikhailovitch a group of 778 coins struck during the reigns of Peter III and Catherine II up to 1774, and medals struck during the period from 1762 to 1794. Mrs. Wayte Raymond of New York City contributed 620 important modern coins of the world, and Mrs. F. C. C. Boyd of New York City gave 572 Mexican coins comprising many issues of the revolutionary period. Mr. Philip H. Chase of Wynnewood, Pa., donated a very rare album, "The Currency of the Confederate States of America," prepared by Raphael P. Thian about 1880 and containing 286 notes and their descriptions. Mr. and Mrs. Isadore Snyderman of New York City presented a unique gold plaque of 1906, made by Victor D. Brenner in commemoration of the removal of the remains of John Paul Jones from Paris to Annapolis in 1905.

Armed Forces History

The collections of the division of military history were enriched by a unique Henry rifle presented to President Lincoln and given by Mr. Robert Lincoln Beckwith. The William De Laney Travis Civil War panorama *The Army of the Cumberland* was received from Mr. C. C. Travis and Mrs. Hattie Kidd. A fine group of decorations awarded to Captain C. H. Huntington was presented by Mrs. Huntington. A rare Medal of Honor and associated Civil War medals awarded Lieutenant Edward B. Williston was received from the Department of the Navy.

The division of naval history acquired from Captain P. V. H. Weems the Weems Memorial Library and its associated collection of navigational instruments illustrative of the progressive solution of problems posed by aerial navigation from its earliest days. The collection includes a notably fine run of Bowditch's *The New American Practical Navigator* from the first to fifteenth editions and Moore's *Practical Navigator* (ed. 1796) which the young Bowditch found to include some 8,000 errors and served as a format for his celebrated work. Included also are navigation instruments used in the polar flights of Richard E. Byrd and Lincoln Ellsworth.

The division's uniform collection has been greatly enhanced by the gift of Mrs. Ernest J. King, widow of Fleet Admiral Ernest J. King, which included a number of her late husband's uniforms, orders, and decorations.

Mrs. Philip Wrigley presented rare and interesting naval uniforms of the World War I period, and an extensive collection of contempo-

rary naval uniforms was donated by the Department of the Navy and Jacob Reed and Sons of Philadelphia.

The U.S. Coast Guard transferred a wide selection of objects pertaining to the history of that Service, including items of ordnance, two sets of gangway headboards, a first-order catadioptric lens, original drafts of a variety of lighthouse lenses, a surfboat and fully equipped beach cart, and eight handsome models of revenue cutters. Floyd D. Houston of New Suffolk, N. Y., presented his finely executed model of the submarine *Holland*, the first submarine in the U.S. Navy.

Through the courtesy of E. B. Tucker and the government of Bermuda, head curator Mendel L. Peterson and museum technician Alan B. Albright obtained a significant collection of artifacts from underwater sites in the Bermuda reefs. These included materials of glass, ceramics and metal from sites dating from 1595 through 1838. The earliest site yielded a rare pewter porringer. The site of the *San Antonio*, a Spanish ship which sank in 1621, yielded more ordnance materials and traces of trade goods. The site of the *Eagle*, a Virginia Company ship which went down in 1658, produced clay pipes, a soapstone bullet mold, a solid iron shot for the ship's main battery, and other artifacts of significance. The site of *L'Herminie*, a French frigate which sank in 1838, was extensively explored and from it were collected glass and unmarked porcelain from the wardroom services and a collection of perfect bottles including those for brandy, wine, oil, and clarified olive oil with the seal of the merchant.

SPECIMENS ACCESSIONED, IDENTIFIED AND DISTRIBUTED
FISCAL YEAR 1963

Departments	Accessions (transac- tions) 1963 (new)	Received on loan	Exchanged with other institutions	Trans- ferred to education- al institu- tions, etc.	Trans- ferred to other Gov- ernment agencies	Lent for study to investigators and other institutions	Specimens identified
Anthropology . . .	93	389	180	0	8	6, 560	2, 000
Zoology	964	3, 239	4, 614	2	26	75, 882	45, 102
Botany	359	4, 364	27, 725	70	640	23, 522	5, 308
Geology	391	262	2, 348	0	466	10, 448	31, 153
Science and Tech- nology	357	57	3	0	0	113	0
Arts and Manu- factures	210	6	10	0	0	103	580
Civil History . . .	580	231	0	0	2	2, 305	190, 366
Armed Forces His- tory	165	0	1	0	0	1, 056	2, 223
Total . . .	3, 119	8, 548	34, 881	72	1, 142	119, 989	276, 732

Care of Collections



Anthropology study collections in new east wing.

Anthropology

Good progress was made in renovation of the space assigned to the division of archeology in the main building and part of this has been utilized by the division. Most of the African and Asian collections have been moved to storage in the new east wing, where they are currently being rearranged and reclassified. As a result of this move, the North American collections in the north attic are being arranged in a manner that will make them much more accessible than heretofore. The area around the skylight in the north attic has also

been floored so that large objects, such as boats, can be stored and yet be conveniently available for study.

Of the 450 George Catlin paintings in the division of ethnology, only 13 remain to be cleaned, restored, and mounted, and these will be completed by H. G. Courtais this year. For record purposes and also to provide prints for the continuing public demand, all of the paintings have been photographed, in color and in black and white, before and after restoration.

During the year, the anthropological laboratory was moved from the ground floor to the third floor of the Natural History building, and its storage in the north attic was changed to the east end of the east attic. The repair and restoration of damaged anthropological specimens, including newly received objects and others from our older collections, was a continuing activity on the part of exhibits specialist A. J. Andrews. More than 400 objects, ethnological, archeological, and physical anthropological, were handled in the laboratory. Scientific illustrator George R. Lewis completed 107 stipple and 32 line-drawings, drew 22 maps and charts, made 37 labels and signs, retouched 6 photographs, and completed 14 detailed pencil and 4 ink wash and color jobs.

Zoology

Considerable progress was made in the division of mammals in rearranging the skeletons and part of the alcoholic collection of small mammals. The skins and skulls of cricetine rodents and of the weasels and related mustelid carnivores were also put in order. In cooperation with the staff of the Mammal Laboratory of the Fish and Wildlife Service, index cards were prepared for most of the sciurid, geomyid, and heteromyid rodents of the New World. Because of construction work in the west attic, it was necessary to move part of the large skeletons housed there to temporary storage, and others were made inaccessible for most of the year. Bases mounted on casters were constructed for several of the large and fragile whale skulls that will have to be moved several times during the construction program. Special wooden cases were designed for storage of a large collection of loose antlers. The contents of the unit cases of large mammal skins were partly rearranged in preparation for the future move into new quarters. The room that houses the dermestid beetle colony for cleaning small skulls and skeletons was renovated, as were the tank and other apparatus that is used to clean larger osteological material.

With the move of the division of birds into new quarters, several previously existing problems involving the care and use of the collec-

tions have been solved. The bird skin storage cases, formerly crowded into three tiers and arranged systematically in horizontal strata, are now in one and two tier rows, the tops of the single tier rows serving as work surfaces. The systematic order of the cases now allows for expansion with little or no disruption of the arrangement of the collection, and ceiling height in the storage area will permit eventual expansion of the collection into a third tier of cases. The collection of bird anatomical specimens in alcohol has been moved from the storage area in the division of reptiles and amphibians to a spacious new alcoholic storage room in the division of birds.

During the year, 1,758 specimens of reptiles and amphibians were identified, cataloged, and shelved. Progress has continued with the inventory of snakes, and new metal labels are being used to replace corroded labels and parchment labels. The use of ground-glass-stoppered jars with petrolatum seals almost completely negates the problem of evaporation of the alcoholic collections.

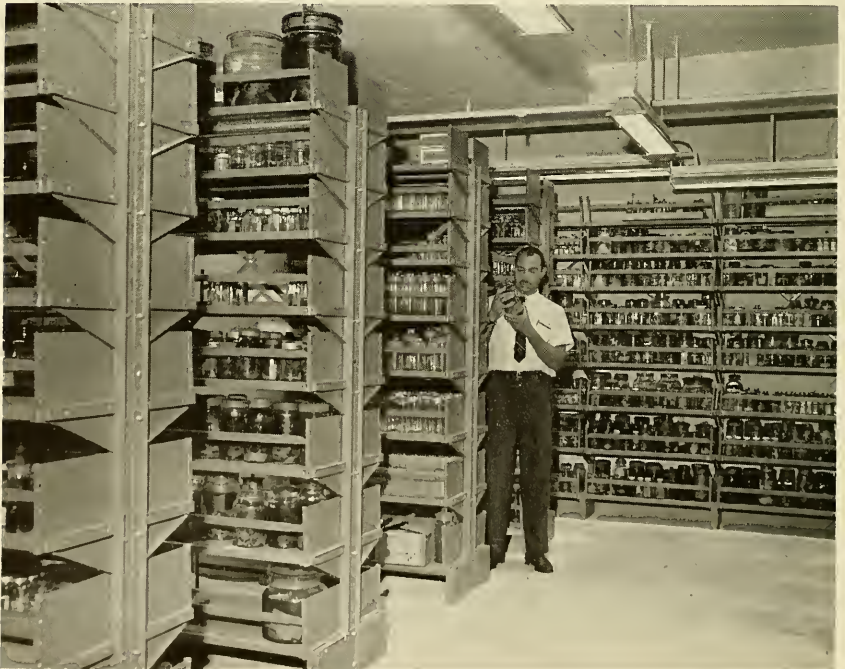
Portions of the collections of fishes formerly housed at the Zoological Park and two large storage tanks have been moved to the Smithsonian Oceanographic Sorting Center because space for them is not



Study skins laid out for inspection in new east wing storage area of division of birds.

presently available in the division of fishes. Progress has been made in surveying the collection and replenishing alcohol that has evaporated from the containers. It is anticipated that this work will be completed within a period of two years.

Because of the improved storage facilities at the Lamont Street building, it has been possible to rearrange most of the collections in the division of insects. The collection is now in better condition than at any time in the preceding three decades. The entire collection of water beetles was arranged systematically and all of it identified at least to genus. Among the Hemiptera, the entire collection of Pentatomidae (stink bugs) has been brought together from several collections, identified, and arranged in 240 labeled insect drawers. Almost 10,000 specimens derived from the John C. Lutz collection and the remaining specimens of Membracidae (tree hoppers) from the Funkhouser collection have been incorporated in the regular series. The collections of most of the neuropteroid orders (ant lions, caddisflies, dragonflies, damselflies, and the like) have been brought together, identified, and rearranged so that, for the first time, it is possible to find any specimen from any part of the world. Large segments of the collection of Lepidoptera, formerly temporarily stored, have



New design racks hold alcoholic specimens of mollusks in east wing.

been rearranged in standard museum drawers. More than 15,000 specimens from the George W. Rawson and J. C. Hopfinger collections of Lepidoptera have been similarly rearranged and properly tagged, and several thousand members of the microlepidopteran families have been spread and readied for critical study and identification.

The summer intern program in the division was highly successful. Among the accomplishments was the sorting and identification to superfamily or lower categories of 19,360 miscellaneous Hymenoptera (bees, wasps, and the like) by summer intern Gary McLaughlin, who also assisted in the care of the Arachnida-Myriapoda collection. Summer intern Louis Bourne cleaned 3,168 drawers and replenished the needed cork bottoms and fumigant in many of them. He also assisted in the rearrangements of collections of butterflies and neuropteroids. Dr. W. Donald Duckworth, then a summer intern, continued work begun in the summer of 1961 and rearranged several families of Microlepidoptera requiring the preparation of several hundreds of microscope slides. Summer intern Dennis E. Puleston rearranged some 8,300 specimens of Lepidoptera, and summer intern Nancy Lawson sorted and organized many thousands of locality labels and assisted in reorganizing the collection of Odonata.

Greater progress has been made during the past year in the reorganization of the collections of marine invertebrates than during any other year since World War II. Under the direction of curator Donald F. Squires and with the assistance of museum technicians Charles E. Goode and T. P. Lowe, the collection of corals is well on the way toward achieving its potential value and usefulness. Approximately 80 quarter-unit cases of corals formerly housed in the attic have now been incorporated with the main collection. Important West Indian collections, many U.S. Exploring Expedition types, and the extensive Steere collection from the Philippine Islands have become readily available for study, as has the large Marshall Islands collections which formed the core of the comprehensive monograph by J. W. Wells on Indo-Pacific reef corals. The inventory and rearrangement of the entire echinoderm collection started early in the fiscal year by summer interns John C. McCain and James F. Casey, Jr., under the direction of associate curator Charles E. Cutress, Jr., was completed before the end of the year by museum technicians Maureen E. Downey and Emily C. Mandelbaum. The vast collection of identified crayfishes has been completely rearranged in a single, readily accessible unit by museum technicians John T. Irving and Roland H. Brown, working under the direction of head curator Horton H. Hobbs, Jr. Mr. Brown has also made commendable progress in reducing the extensive backlog of identified but uncataloged crayfishes, and Dr. Hobbs is steadily decreasing

the backlog of unidentified specimens. Museum aide Nathaniel L. Livingston has checked the preservation of all type material in alcohol and has added fumigant to all boxes of dry material in the attic and to a large part of those on the ground floor.

During the past year, the division of mollusks moved into new quarters on the fifth floor of the east wing of the museum. As a result, except for a limited number of duplicate specimens, the collection of mollusks is concentrated in one area sufficiently large to allow for expansion for some years to come. In the process of preparing for the move, associate curator Joseph Rosewater, with the assistance of museum technicians W. J. Byas and J. A. Pendergrass, rearranged and brought together into one series eight separate collections previously located in several rooms. The alcoholic collection, formerly inconveniently housed on the ground floor of the museum, was similarly moved into a room adjacent to the shell collection where it is now readily accessible to staff members and visitors. The slide collection has been relabeled, indexed, and installed in a new steel slide cabinet.

Botany

The delivery of 210 new herbarium cases made it possible to expand the collections of the division of phanerogams about 10 percent. This has relieved the crowded conditions sufficiently to permit insertion of new material without injury to the specimens.

The major activities in caring for the permanent collections and the processing of new material are summarized in the following table:

	<i>1961-62</i>	<i>1962-63</i>
Specimens and photographs mounted	31, 030	30, 441
Specimens repaired	11, 463	13, 925
Specimens stamped and recorded	16, 341	34, 692
Specimens incorporated in herbarium or added to the permanent collections	27, 892	20, 424

There are now 59,302 types in the segregated type herbarium, including 41,309 phanerogams, 10,115 grasses, 3,482 ferns, and 4,396 cryptogams. This is an increase of 166 types during the year.

Geology

The removal of all the collections of the department to the new space in the east wing enabled a rearrangement of the specimens into more useful and efficient schemes. The storage collections are in large center areas surrounded by the offices. Ready accessibility of office to storage is thus a very convenient arrangement. As it was moved, the mineral collection was in part rearranged according to a more

modern chemical-structural classification. The large mineral specimens were taken out of dead storage, cleaned, classified, and placed in new and readily accessible storage facilities.

The move of the invertebrate paleontology and paleobotany collections offered an opportunity for major rearrangements of a large part of the collection on a drawer-by-drawer level, bringing together all of the scattered drawers of one category in a prearranged sequence as the move was made. The large invertebrate stratigraphic collection was brought together into groupings based on geologic system and geographic location by state or foreign country. The general paleobotanical collections were arranged in order of stratigraphic occurrence and the rearrangement of all Paleozoic and Mesozoic type and biologic sets of mollusks was completed.

Museum technician James Ferrigno, under the direction of associate curator Richard Cifelli, has made considerable progress in sorting and reorganizing the several thousand bulk, unwashed foraminiferal samples. Although not completely inventoried, these specimens are for the first time conveniently arranged for research or exchange purposes.

A significant modification of the standard dry peel method of making replicas of polished surfaces of skeletal specimens that are subject to differential etching with acids or other reagents was developed this last year by research associate John Utgaard, museum technician Lorenzo Ford, and Jesse E. Merida of the U.S. Geological Survey. The standard technique used acetate paper as the medium onto which the impression of the etched surface was made. The paper was either unmounted or pre-mounted on a glass slide. Because of the flexibility and crinkling of the paper, study under a microscope was difficult and detailed measurements were not reliable. The crinkling difficulty was overcome by using slides made entirely of cellulose acetate or plexiglass in dimensions approximating those of a standard glass slide. The replicas are then comparable to a thin section in use. The plastic slides are essentially unbreakable and are adapted to making serial sections or a number of replicas of a single surface of a type or other important specimen. The most important use of these slides will be in preliminary study of groups that require thin sections, as the process takes less than half the preparation time that finished thin sections require. A surface from which preliminary peels have been made is still available, of course, for thin-sectioning.

In the new distribution of the study collection of vertebrate fossils, all of the fossil land mammals, except for Oligocene titanotheres which remain in the old storage area, are now housed in the east wing.

Fossil marine mammals are to remain on the steel range of the old storage area and eventually to occupy this entire space. Fossil birds are presently on the steel range but are to be moved to the east wing when additional storage equipment becomes available. All of the collections of fossil reptiles and amphibians, except for an unprepared portion of the Marsh collection, were moved to the east wing and retained their previous taxonomic arrangement. Available storage on the first floor of the new wing also permitted the moving of the collection of fossil agnathous, sharklike and ray-finned fishes. A gratifying increment of space for expansion was realized, which resulted in a lessening of the former crowding of specimens and a synoptic rearrangement of collections for the best practical purposes of curating, study, and reference.

Science and Technology

A bibliography of the history of scientific instruments and special bibliographies of electrical measuring instruments were completed under contract for the division of electricity. Summer interns Joan Hersey and N. Terrell Robinson, under the supervision of curator Robert M. Vogel, classified and placed in working order considerable portions of the extensive collection of photographic negatives of engineering and railroad subjects, and of the Edwards collection of materials on the history of bridge engineering.

Museum technician George Ford of the division of medical sciences cleaned and marked all drug jars and medicinal bottles and containers in preparation for moving them to the Museum of History and Technology.

Repair and restoration of watercraft for the new exhibits is now nearly complete. The first carriage from the land transportation collection, the 1860 phaeton, the Winton automobile (1904), Clark tricycle, and Columbia electric automobile were restored.

Civil History

In the division of cultural history, a project to photograph all the keyboard instruments in the Hugo Worch collection was brought to completion, as was the measuring of all keyboard instruments to provide detailed catalog information. The intensive restoration program in this section has been further expanded by the addition to the staff of museum technician J. Scott Odell, who has completed restoration of a rebec, a hurdy-gurdy and a guitar, and is at present restoring an 18th century spinet by Thomas Hitchcock and a 19th-century American chamber organ. In the meanwhile, leading harpsichord builders and expert restorers of antique keyboard instruments are being em-

ployed to restore certain notable instruments to playing condition. Completed this year were the restoration by Hugh Gough of New York of a German fretted clavichord and an English square piano made by Erard & Co. in 1799, and by John Shortridge of Harpers Ferry, W. Va., of a grand piano made by Johann Schmidt of Salzburg in 1788.

The collections of archeological artifacts from recent excavations of colonial sites have been systematized and a program of restoration of pottery and glass utensils is being conducted so that their worth as museum specimens for either study or exhibition will be greatly enhanced. Archeological aide, Richard J. Muzzrole, has evolved a technique for durable and pleasing restoration of colonial wine bottles through the use of epoxy resin and fibreglass.

Restoration specialist Gordon Dentry has skillfully restored a late 17th-century Hartford "tulip and sunflower" decorated oak chest. This valuable chest, "restored" according to 19th century concepts in 1883, was painstakingly analyzed on the basis of internal evidence and brought back to the closest possible approximation of its original appearance.

Arts and Manufactures

In the division of textiles, museum aide Lois Vann has continued the work of improving the storage of the lace needlework, and fabric collections. Small items have been laid on linen screens, stretched in wooden frames that fit horizontally into slots in the storage units. The screens have been found most satisfactory and are being used more extensively. The frames allow many small items to be stored in little space while eliminating the necessity of placing them on top of one another as in a drawer, thus avoiding undue pressure. The screens are of correct dimension to fit into special exhibit cases, thus allowing a permanent mount to be made for some items. Museum aide Everett Parker continued his work of cleaning textile machines and patent models for exhibition, following the patent specifications for reassembling and for replacing missing or broken parts.

In the division of ceramics and glass, the inventory and rearrangement of storage items are continuing, and the accessioning and cataloging of new objects are progressing. A large number of renovations was completed by museum technicians John C. Carter and Francis Gadson in the division of manufactures and heavy industries. In the division of graphic arts, associate curator Fuller O. Griffith directed the cleaning, placing in plastic coverings, and tagging of 143 patent models in preparation to moving to the Museum of History and Technology. In the section of photography, associate curator Eugene

Ostroff relocated the collection of photographs in dust-proof containers in an air-conditioned storage area. In the division of agriculture and forest products, associate curator Edward C. Kendall, museum technician John Wingo, and other departmental aides, have been preparing the 1886 Holt combine which will occupy the center of the farm machinery hall in the new building. The only available guides as to the original condition of the machine are small color transparencies taken by Mr. Kendall in Stockton in 1959. The combine has now been disassembled in preparation for moving it to the new space.

Armed Forces History

Under the direction of museum specialist Donald E. Kloster, the rearrangement of collections in the division of military history was continued with special reference to preparation for the move into the Museum of History and Technology. The same objective was followed in the division of naval history. Work was performed in the preparation of the missing portions of the Star Spangled Banner under the direction of curator Edgar M. Howell, with the technical advice of curator of textiles, Grace Rogers Cooper.

The gondola *Philadelphia* was moved to its final position in the armed forces hall of the new Museum of History and Technology, and it was left in its crating pending completion of the hall. A regular program of inspection has been maintained. With the advent of the heating season, it was determined that the humidity content of the building had dropped to a dangerously low level, and to counteract the excessively dry ambient air, a humidifying apparatus was installed. Hygroscopic records indicate a substantial increase in moisture content within the crate which has checked any tendency toward friability.

Several projects of new construction have been completed in the new model shop under the direction of exhibits specialist Howard P. Hoffman. The first model to be constructed is a fine decorative half model of the proposed Doughty revenue cutter of 1825. Two other builder's models—one, a shoal-draft drop-keel cutter of 1819, the other, a pilot schooner of 1793—are in various stages of construction. The shop has also undertaken a program of restoration and refinishing of half models, and the maintenance and repair of rigged models.

The program of preserving materials recovered from underwater sites accelerated during the year through the efforts of museum technician Alan B. Albright. Special techniques of preserving organic materials with polyethylene glycol are being studied and marked progress has been made in the use of the denser forms of this substance.

Investigation and Research

Some of the research projects described below have been undertaken with the partial support of research grants from such Federal granting agencies as the National Science Foundation and the Office of Naval Research. A detailed listing of these is published in the Report of the Secretary of the Smithsonian Institution.



Completion of east wing was accompanied by remodeling of the Smithsonian library, located along the northeast range of the main Natural History Building.

MUSEUM OF NATURAL HISTORY

Anthropology

At the Second International Conference on Oral Biology, which was convened in Bonn, Germany, in July, T. Dale Stewart, then head curator but since November Director of the Museum of Natural His-

tory, presented an invitational paper entitled, "New Developments in Evaluating Evidence from the Skeleton." During this visit, Dr. Stewart was invited by the Rheinisches Landesmuseum to prepare for publication in the *Bonner Jahrbücher*, the official journal of that museum, a paper on some aspect of the original Neanderthal find, which is preserved at the Landesmuseum. He has chosen to study the scapula and in restoring it has assembled and measured large series of modern scapulae. Following the Conference in Bonn, Dr. Stewart visited the caves in southern France and northern Spain containing examples of prehistoric art, in an effort to determine the feasibility of reproducing portions of a cave wall in the currently developing exhibit hall on Old World archaeology.

During September and October Dr. Stewart continued his studies of the skeletal remains of two Neanderthal individuals collected by him in the Shanidar excavations in Iraq. These studies supported earlier convictions that the Shanidar Neanderthal population remained fairly homogeneous throughout the 15,000 years estimated to be represented by the collections.

Head curator Waldo R. Wedel completed a review of some environmental limitations of the western plains in relation to their occupation by the aboriginal populations, under the title "The High Plains and Their Utilization by the Indian." This study emphasizes the extent to which the distribution of surface-water supplies influenced the seasonal patterns of travel and residence by the earliest inhabitants of the semi-arid Great Plains region.

At the annual meetings of the Society for American Archaeology in Boulder, Colo., Dr. Wedel presented a preliminary report on the excavations made in 1961-1962 at the Lamb Spring site near Littleton, Colo.; with Dr. C. Lewis Gazin, curator of vertebrate paleontology, he investigated the possibility of an association between man and a late Pleistocene faunal assemblage. The geological aspects of the work were reviewed in consultation with scientists at the Denver section of the U.S. Geological Survey at the time of the meetings in Boulder.

Archeology.—At the beginning of the year, while still curator of archeology, Waldo R. Wedel, with museum specialist George Metcalf and exhibits specialist Peter W. Bowman, continued field investigations begun in 1961, near Littleton, Colo. At the end of the field season in late August some 2,400 square feet of deposits around an ancient spring had been excavated to depths up to 11 feet, and extensive collections made of bones of the mammoth, bison, and other mammals. Although conclusive evidence of man's association here with the mammoth was not obtained, a stratified section of the

deposit and recovery of several key artifact types in situ established man's presence at least as far back as Eden-Scottsbluff times, some 7,000 years ago. Bone samples have been submitted for radio-carbon dating tests.

Early in November Dr. Wedel, associate curator Clifford Evans, and research associate Betty Meggers participated in a symposium entitled "Prehistoric Man in the New World," as a part of the fiftieth anniversary celebration of the founding of Rice University. Dr. Wedel reviewed the archeology of the North American Great Plains, Dr. Evans that of Lowland South America, and Dr. Meggers discussed the cultural connections and convergences between North and South America. All the papers from this symposium will be published by the University of Chicago Press. In November Dr. Wedel was appointed head curator of anthropology. He also served as chairman of the 20th Plains Archeological Conference in Lincoln, Nebr.

In August the then associate curator, but since March divisional curator Clifford Evans and research associate Betty J. Meggers attended the 35th International Congress of Americanists in Mexico City. At this meeting, they served as organizers and co-chairmen of a symposium on aboriginal cultural development in Latin America; subsequently, they jointly edited the papers of the symposium participants for publication in the Smithsonian Miscellaneous Collections. Dr. Evans with Emilio Estrada contributed a paper on "Cultural Development in Ecuador" and Dr. Meggers spoke on "Cultural Development in Latin America: An Interpretative Overview."

Drs. Evans and Meggers completed and submitted for publication a manuscript on the Jambeli culture of Ecuador initiated in the previous year in collaboration with Emilio Estrada; a paper by the same authors on the Machalilla culture of Ecuador was published in the journal *American Antiquity*.

From January to March, Drs. Evans and Meggers conducted a joint field operation with Dr. Saul H. Riesenbergs, curator of ethnology, at the Micronesian Island of Ponape in the Trust Territory of the Pacific. To test the validity of oral history, the archeological members of the team collected an impressive mass of data for comparison with the development of the cultural history, as passed orally from one generation to the next; preliminary conclusions indicate a high degree of correlation. Following this field program, Drs. Evans and Meggers traveled to Taiwan and Japan to examine collections of the Jomon period for possible relationships with the Valdivia culture of Ecuador, and to consult with Japanese colleagues. Museum collections in all the major institutions on the islands

of Honshu and Kyushu were studied and photographed; new insights were obtained into the problem of possible trans-Pacific movements between southern Japan and Ecuador in the period 2000 to 2500 B.C.

Associate curator Gus Van Beek continued preparation of his final report on Hajar Bin Humeid, the longest inhabited site in southern Arabia thus far excavated. He also began, in collaboration with Drs. Albert Jamme and Glen H. Cole, a preliminary report on the field accomplishments of the South Arabian Expedition of 1961-62 at Wadi Hadhramaut. At the annual meeting in Baltimore of the Archaeological Institute of America he presented a paper "An Archaeological Survey of Wadi Hadhramaut, South Arabia." Dr. Van Beek also completed for publication a manuscript on a unique copper hoe collected by J. P. Mandaville in northeastern Arabia and subsequently presented to the National Museum.

Museum specialist George Metcalf, after his return from field work with Dr. Wedel near Littleton, Colo., resumed work on a study of archeological materials collected earlier in Nebraska. Honorary research associate Neil M. Judd completed a manuscript on the architecture of Pueblo Bonito. Collaborator John M. Campbell conducted field work in an Eskimo site in Greenland in July and subsequently continued study of materials collected earlier in the Brooks Range in Alaska as part of a long-range program aimed at reconstructing the course of human movements through Alaska into North America.

Ethnology.—Curator Saul H. Riesenbergs devoted considerable time to editing the contributions to the ethnohistory symposium he organized for the Tenth Pacific Science Congress.

The Caroline Islands in the western Pacific Ocean, the island of Ponape precisely, were the site of an interesting and almost unique experiment involving Dr. Riesenbergs and Drs. Evans and Meggers of the division of archeology. Just off the eastern coast of Ponape a complex of artificial islets and megalithic structures known as Nan Madol has existed for a long time. To determine the accuracy of the oral history of the area, Dr. Riesenbergs collected traditions relating to the structures while Drs. Evans and Meggers collected archeological data which permitted them to reconstruct, at least tentatively, the history of the islets. In the 6 weeks of joint investigation, it was established that oral traditions in this area have greater historical validity than is generally conceded by anthropologists. A joint report will present the results of this team effort.

Dr. Riesenbergs has completed his contribution to a major monograph of the folklore of Ponape being prepared for publication with Dr. John L. Fischer of Tulane University.

In addition to planning exhibits for a new display on the peoples of Africa, associate curator Gordon D. Gibson prepared a report



Figure for an iron smelting diorama in the hall of peoples of Asia and Africa, being modeled in clay by sculptor John B. Weaver. The tribesmen represented are from the Mandara Mountain region of the Northern Cameroons.

on the Himba trumpet, a unique musical instrument which he collected in the course of his field work earlier in South-West Africa. He attended the annual meeting of the African Studies Association in Washington in October, and the annual meeting of the American Anthropological Association in Chicago.

Planning of the new exhibits on the peoples of Asia has occupied much of the time of associate curator Eugene I. Knez; in connection with this effort, as well as with his primary research interests, he continued to search Korean historical literature for information to supplement his field studies of Korean material culture. In August, his long and active interest in Korean culture was formally recognized by a letter of appreciation from the government of the Republic of Korea.

The Canela tribe of Indians in eastern Brazil is a technologically simple group whose cultural characteristics are being rapidly

altered by increasing contact with the neighboring Portuguese population, as well as with other unrelated Indian cultures. Associate curator William H. Crocker continued his organizing of the field data obtained in the course of field contacts with the Canela over several years before joining the staff. On the basis of these materials, two papers have already been prepared; one was presented at the 35th International Congress of Americanists in Mexico City and will be published in the Proceedings of the Congress, and the second was read before the American Anthropological Association meeting in Chicago and will be expanded for publication by the Niedersächsisches Landesmuseum, in Hanover. Dr. Crocker has also been serving as contributing editor on South American ethnology for the "Handbook of Latin American Studies."

Physical Anthropology.—In September Dr. J. Lawrence Angel joined the staff as curator of the division of physical anthropology. He has completed a statistical analysis of a structural feature of the human femur which appears to be the result of pressure from the circular ligament of the hip joint. He also re-shaped his research project on the anthropology of chronic disease to include research on aging and paleopathology of populations represented in the divisional collections. Dr. Angel lectured to several local groups on various topics, and continued the consultant services for law enforcement agencies which have been performed by his predecessors for many years.

Museum specialist Lucile E. Hoyme continued her studies of possible relationships between climatic factors and the cranial measurements of North American Indians, Eskimos, and Siberians, in search of distribution patterns indicating natural selection. Judging from the wide variability in all these populations, it appears that natural selection has tended to maintain variability and the capacity of the population to adjust to changing environment. Miss Hoyme also completed a study of the history of reconstructions of Neanderthal posture, demonstrating a close correlation between the physical and psychological qualities attributed to Neanderthal man.

Research by visiting investigators.—As in previous years, the collections and other resources of the department were used by many distinguished scientists and visitors. Among these, in addition to staff members of Federal agencies, may be listed:

Archaeology: W. F. Albright, Ray L. Cleveland, Hans Goedicke, W. G. Lambert, Johns Hopkins Univ.; José Rafael Arboleda, Universidad Javeriana, Bogota, Colombia; Luis Avelyna de Anda, Instituto de Anthropología e Historia, Mexico; Claude Baudet, Musée de l'Homme, Paris; Immanuel Ben-Dor, Emory Univ.; Junius B. Bird, American Museum of Natural History; Jean Davison, Univ. of Vermont; John Galloway, Michigan State Univ.; Gerard G. Gayot, Univ.

of Indiana: A. K. Grayson, Oriental Institute, Univ. of Chicago; G. Lancaster Harding, Daroun-Harissa, Lebanon; Seiichi Izumi, Kazuo Terada, Toshihiko Sono, and Hisashi Sato, Univ. of Tokyo; Frances James, Institute of Archaeology, Univ. of London; Kathleen Kenyon, St. Hughes College, Oxford, England; F. A. Khan, Director of Archaeology in Pakistan; Alfred Kidder II and Edwin M. Shook, University Museum, Philadelphia; William D. Lipe, Yale Univ.; Howard MacCord, Historian, State of Virginia; Machteld Mellink and Hiroke Sue, Bryn Mawr College; Hans Müller-Beck, Historical Museum of Bern, Switzerland; S. Paranavitana, Department of Antiquities, Colombo, Ceylon; R. A. Parker, Brown Univ.; Tom Patterson, Univ. of California; Edith Porada, Columbia Univ.; Henry Riad, Director, Graeco-Roman Museum, Alexandria, U.A.R.; Mario Sanoja O., Univ. of the Andes, Merida, Venezuela; Fernando Altenfelder Silva, Universidad do Rio Claro, Rio Claro, Brazil; Ram E. Singh, British Guiana Museum, Georgetown; James Swanger, Assistant Director, Carnegie Museum; Josepha Weitzmann-Fiedler, Princeton, N.J.; Charles Wicke, Univ. of Arizona; F. V. Winnett, Univ. of Toronto.

Ethnology: Ethel Jane Bunting, Washington, D.C.; John D. Heath, Seattle, Wash.; Karin Hissink, Frobenius Institute, Frankfurt, Germany; William Holm, Seattle, Wash.; John C. Huntington, Los Angeles, Calif.; Alfred Métraux, UNESCO, Paris; Rodney Needham, Oxford Univ.; Douglas Newton, Museum of Primitive Art; Eleanor Olson, Newark Museum; Mei-chun Tang, National Taiwan University, Taipei.

Physical Anthropology: José R. Arboleda, Universidad Javeriana, Bogota, Colombia; G. E. Arrington, Dean Franklin Bacon, and William M. Shanklin, Medical College of Virginia; C. Loring Brace, Univ. of California; John M. Campbell and Norman Walensky, George Washington Univ.; Marvin Canter, Stanton Canter, and Neil Slavkin, Southern California School of Dentistry; George Carter and William L. Straus, Jr., Johns Hopkins Univ.; Douglas Dick, Yale Univ.; Morris Goodman, Wayne State Univ.; Martin Gusinde, Catholic Univ.; K. Hoshino, Univ. of Western Ontario, Canada; C. A. W. Korenhof, Mineralogisch-Geologisch Institut, Utrecht Univ., The Netherlands; Stanford A. Lavine; Hasnukh J. Mehta, Western Reserve Univ.; Melvin Moss, Myra Freilich, S. Greenberg and S. Moody, Columbia Univ. College of Physicians and Surgeons; Rupert I. Murrill, Univ. of Minnesota; Hilel Nathan, Hebrew Univ., Jerusalem; Lawrence Oschinsky, National Museum of Canada; Mrs. Sidney A. Peterson, St. Paul Science Museum; Samuel Rabkin, Winter Park, Fla.; Andrew J. Ramsay, The Jefferson Medical College; M. Rubin, Newark, N.J.; E. Carl Sensenig, H. H. Hoffman and E. G. Hamil, Jr., Univ. of Alabama; L. R. Setty, Howard Univ. Medical School; Charles E. Snow, Univ. of Kentucky; Daris R. Swindler, Pat Holliday and Miss Ann McCoy, Medical College of South Carolina; James M. Tanner, Univ. of London, England; Neil C. Tappen, Tulane Univ.; Walter Taylor, Southern Illinois Univ.; Steven Vanderberg, Univ. of Louisville, Ky.; and S. Yale, Univ. of Illinois.

Zoology

The crayfish family Astacidae and their ostracod commensals have occupied the research attention of head curator Horton H. Hobbs, Jr. Although most of the research time available to him has been spent in identifying the accumulation from the past of crayfishes in the National Collection, Dr. Hobbs has published several research papers; one manuscript is in press, and another four have been completed.

Three of the latter are concerned with new cave-dwelling crayfishes, and the fourth, with Dr. Alejandro Villalobos, Universidad Autonoma de México, treats the crayfishes of Cuba. Dr. Hobbs has in progress a checklist of the Nearctic crayfishes, a revision of the Entocytherid ostracods of Mexico and Cuba, and, with Dr. Thomas C. Barr of the University of Kentucky, a study of the cave-dwelling crayfishes of the genus *Orconectes*.

Mammals.—Curator David H. Johnson, continuing his research of the mammals of eastern Asia and the Pacific Islands, published two papers describing new rodents and reporting on mammals from Ponape and other islands of Micronesia. Dr. Johnson began a study of a collection recently received from the Philippines, and collaborated with J. Knox Jones, Jr., to complete a taxonomic survey of the lagomorphs and rodents in Korea.

Associate curator Henry W. Setzer was engaged primarily in organizing and supervising field expeditions to collect small mammals and their ectoparasites in Madagascar and southwestern Asia in collaboration with the Research and Development Command of the Surgeon General, U.S. Army. Dr. Setzer began an extended trip abroad by a study period at the British Museum (Natural History), followed by five weeks with Col. Robert Traub's field party in West Pakistan, and a collecting foray along the Afghanistan border of Iran with G. L. Ranck and L. M. Herman; before returning to Washington at the end of November he had stopped off in Cairo, Egypt, to consult with the officials of U.S. Naval Medical Research Unit No. 3, and had assisted the field party in Madagascar in beginning their work. Then in late February and early March, Dr. Setzer and Theodore A. Heist collected with Col. Traub's field party on the Mexican plateau. At the museum he continued his study of Egyptian mammals collected by the Naval Medical Research Unit No. 3, and published a paper on Egyptian rodents.

Associate curator Charles O. Handley, Jr., spent the first part of the year at high elevations in the Clinch Mountains of southwestern Virginia, collecting mammals with the assistance of Richard and Daniel Peacock. Between January and April he continued his primary research interest, the mammals of Panama, with the able assistance of Francis M. Greenwell, exhibits specialist in the taxidermy shop. Collections were obtained from the San Blas Coast in extreme eastern Panama, and the Bocas del Toro Archipelago and adjacent mainland near the Costa Rican boundary. The Gorgas Memorial Laboratory, as in previous years, has given important assistance to Dr. Handley's field studies. An annotated checklist of the mammals of Panama was completed by Dr. Handley during the year.

Research associate Robert Traub organized and participated in widely separated field expeditions as a part of the field program of the Department of Microbiology, University of Maryland School of Medicine. Most of September and October were occupied by collecting, with A. Dean Stock, small mammals and their ectoparasites in West Pakistan. They worked in Thailand for four weeks in October and November with a field party from the SEATO Medical Research Laboratory headed by Maj. John E. Scanlon. In February Col. Traub joined forces with James H. Shaw to carry out a 3-months' collecting expedition in Mexico, including the states of Veracruz, Guerrero, Mexico, Nuevo León, and Tamaulipas.

Birds.—Curator Philip S. Humphrey continued his studies of plumage succession in birds, and in collaboration with Dr. Kenneth C. Parkes of the Carnegie Museum prepared a paper on the comparative study of plumage succession; he also continued, with Miss Ruth Billard, Connecticut Board of Fisheries and Game, a cooperative study of feather replacement in the greater scaup (*Aythya marila*). Drs. Parkes and Humphrey also completed a paper, now in press, on the plumages and systematics of the whistling heron. Galley proofs have been received for a chapter on the anatomy of waterfowl by Dr. Humphrey and George A. Clark, Jr., which will appear in the fourth and final volume of Dr. Jean Delacour's series on the waterfowl of the world.

A cooperative field study was carried out by Dr. Humphrey with the Belém Virus Laboratory, Fundação Serviço Especial de Saúde Pública, and with the Museu Paraense "Emilio Goeldi," all in Belém, Brazil. The study occupied the period between January and April and dealt with the relationship of birds to arthropod-borne virus diseases, especially eastern equine encephalitis. Nearly 1000 study skins and more than a thousand that number of anatomical specimens were prepared during the course of this field investigation.

Assistant curator George A. Watson joined the staff in August and immediately began work on an illustrated "Preliminary Field Guide to the Birds of the Indian Ocean" for use by participants in the International Indian Ocean Expedition. Mr. Watson was greatly assisted in this task by the collaboration of Dr. Richard L. Zusi, University of Maine, and Dr. Robert W. Storer, University of Michigan. Continuing his researches on Aegean birds he has nearly completed his study on "Evolution and Ecology of the Birds of the Islands of the Aegean Sea." He also finished several smaller manuscripts, as well as an important study of feather replacement; the latter paper has been summarized in *Science* and an extended version will be published soon.

Research associate Alexander Wetmore conducted field investigations in Panama and the offshore islands from January through most of March. The first phase of the work centered on the white-winged dove colonies found last year in the mangrove swamps of the Province of Coel ; these observations are significant because elsewhere this is a bird of drier, upland localities. During this period, too, he secured interesting information on the wintering dowitchers among the migrant sandpipers and gull-billed terns. Then, in the second phase of the program, Dr. Wetmore was a guest on the motor vessel *Pelican* engaged in a study of the distribution of the spiny lobster, a cooperative project between the Bureau of Commercial Fisheries of the Fish and Wildlife Service agencies giving advisory assistance to the Panamanian Government. As the vessel cruised along the Pacific coast of Panama, Dr. Wetmore was able to make daily observations ashore and on offshore islands, in continuation of his survey of island birds initiated last year.

Finally, several valuable days were spent in the region near the Panamanian frontier with Colombia. After several days near Puerto Obald a, Dr. Wetmore, with mammalogist Dr. C. O. Handley, Jr., established a camp in the high forest back of Armila, the most eastern village of the Cuna Indians. Numerous species of birds were collected in mist nets, as well as by conventional hunting techniques. Three pairs of the rare ant-bird *Xenornis setifrons*, known previously from just five specimens, were especial prizes. Through the cooperation of the Gorgas Memorial Laboratory of Panama, Dr. Wetmore had the able services of one of their technicians, Rudolfo Hinds.

Research associate Herbert G. Deignan served as ornithologist with a field party from the division of mammals in Madagascar. His "Checklist of the Birds of Thailand" is now in page proof. He also continued work on parts of Peters' "Checklist of Birds of the World." Research associate Oliver L. Austin, Jr., is continuing his work on the two final volumes of A. C. Bent's "Life Histories of North American Birds." The manuscript of one of these has now been completed and will probably go to press early in the coming year. Research associate Herbert Friedmann submitted a manuscript on evolutionary trends in the avian genus *Clamator* which has been accepted for publication in the Smithsonian Miscellaneous Collections. Dr. Friedmann's monograph "Host Relations of the Parasitic Cowbirds" appeared as U.S. National Museum Bulletin 233.

Reptiles and Amphibians.—Curator Doris M. Cochran continued her study of South American frogs and described two new genera in collaboration with Dr. C. J. Goin of the University of Florida. She spent 3 months studying museum collections and in making field investigations in Brazil, Argentina, Peru, Colombia, and Panama.



Importance of the sea as a source of food is illustrated in the new hall of life in the sea.

Fishes.—Curator Leonard P. Schultz has actively continued his research on sharks and has in press three papers dealing with this group and their attacks on man: With Dr. J. A. F. Garrick he has completed a guide to the kinds of dangerous sharks of the world; his documented list of shark attacks for the world will appear with Marilyn H. Malin as coauthor; a forthcoming volume to be published by the American Institute of Biological Sciences, entitled “Sharks and Survival,” will include a section which has been completed by Dr. Schultz on attacks by sharks as related to the activities of man. He has also completed a paper on the silver hatchetfishes of the Western Atlantic.

Associate curator Ernest A. Lachner has in an advanced stage of completion studies of the families Gobiidae, Eleotridae, and Taenioididae, and of the systematics of the diskfishes, family Echenidae, and their host relationships.

Since starting on active duty in January 1963, associate curator Robert H. Gibbs has continued his research on the comparative anatomy and systematics of the tuna genus *Thunnus*, on the comparative anatomy and systematics of the family Scombridae, on the systematics and ecology of stomiatoid fishes, on the systematics of the Western Atlantic flying fishes, and on the distribution of surface fishes from the vicinity of the Gulf Stream. During the past year Dr. Gibbs participated in collecting fishes in the fresh and salt waters of Massachusetts, in the fresh waters of Alabama and Florida, and in a transect from the Gulf of Guinea to Bermuda. He has papers in press on the families Astronesthidae, Iliacanthidae, and Melanostomiidae in volume 4 of the “Fishes of the Western North Atlantic”; and is coauthor with Dr. Norman Wilimovsky on the family Alpisauridae in volume 5.

Associate curator Victor G. Springer, since joining the staff in August, has submitted four manuscripts for publication on various fish groups. He is continuing his studies on the relationships and distribution of certain gobioid fishes, preparing a revision of the blenny genus *Entomacrodus* and with Dr. J. A. F. Garrick conducting investigations on certain shark genera. Dr. Springer left Washington in February to participate in an oceanographic expedition to the tropical eastern Atlantic Ocean aboard the research vessel *Geronimo*. Although the cruise did not get beyond Bermuda because of the disablement of the ship, Dr. Springer was able to collect about 300 fish specimens before returning to Washington in mid-March.

Associate curator William R. Taylor has continued his studies of the catfishes; in this connection he studied collections at Tulane University, Vanderbilt University, and the Tennessee Game and Fish Commission. He has nearly completed his revisionary study of the genus *Noturus* and has in preparation a manuscript on the catfish families Aspredinidae and Ariidae for the series of publications on the fishes of the Western Atlantic. Dr. Taylor participated during March and April in the International Indian Ocean Expedition as a specialist aboard the research vessel *Anton Bruun*, following which he returned to Washington by way of the principal scientific repositories in Europe for fish specimens at Amsterdam, Leiden, Brussels, Paris, and London.

Associate curator Stanley H. Weitzman, who joined the staff in January, has continued his studies of the Asiatic minnows of the genera *Aphyocypris* and *Tanichthys*, of the South American catfishes of the genus *Corydoras*, and of the osteology and relationships of the South American characid fishes. On the latter two groups he has submitted manuscripts for publication.

Insects.—Curator J. F. Gates Clarke made significant progress on his long-term study of the Neotropical Microlepidoptera and the representatives of this group in Micronesia. A manuscript was completed on the Neotropical genus *Gonionota*, and another is nearly completed on the Hyponomeutidae. The fourth volume of the publications on the Meyrick types in the British Museum (Natural History) appeared in March, and the manuscript for the fifth volume was completed this year. Dr. Clarke also completed a book for young people on North American butterflies.

Dr. Clarke's field studies in Oregon and Washington during July yielded some 7,000 specimens, among which were many novelties, as well as other previously described species, all of which will contribute much to the knowledge of the ecology and distribution of Microlepidoptera in the Pacific Northwest.

Associate curator O. L. Cartwright devoted most of his research time to a revision of the scarab beetle genus *Ataenius*, which involved borrowing large numbers of collections from museums in Australia, Canada, and at Harvard University, as well as a visit to the Canadian national collection to study types of the scarab beetles.

Associate curator Ralph E. Crabill, Jr. completed several short papers as a beginning to a complete revision of the chilopod order Geophilomorpha of the world; an investigation of the New Zealand representatives of the order was initiated this year; and a trip was made to study the chilopod types in the Museum of Comparative Zoology. Dr. Crabill spent the first three months of the year studying types and other critical specimens in museums at Munich, Vienna, Hamburg, Copenhagen, and London. During this study tour, he collected toponymical centipedes for about two weeks in the Bavarian Alps.

Associate curator Donald R. Davis has nearly completed his study of the Prodoxidae, or yucca moths. As part of a large project to understand and describe the biology of the leaf-mining Lepidoptera, he collected in the Dismal Swamp of Virginia in July, obtaining 300 specimens of Microlepidoptera along with samples of leaves mined by their larvae.

Associate curator William D. Field continued his studies on moths of the genus *Ceramidia* and initiated a research study of *Vanessa*, a genus of butterflies; manuscripts dealing with both genera are nearing completion. In August he spent 12 days collecting Lepidoptera along the Blue Ridge Parkway of Virginia, North Carolina and South Carolina, and in the Great Smoky Mountains National Park. In May he obtained a small but valuable collection of Lepidoptera in the vicinity of Lewisburg, W. Va.

Associate curator W. Donald Duckworth, who reported for duty in August, completed a revision of the North American species of the moth family Stenomidae, the first exhaustive study of the Nearctic species; several manuscripts have also been completed toward a revision of the Neotropical species. In addition, research has been initiated on the Nearctic Hyponomeutidae.

Associate curator Oliver S. Flint, Jr., concentrated his research on the Trichoptera, especially the Neotropical species but he has also completed several papers on the Nearctic forms. The status of many species was clarified by examination of types of older species and many of these were figured for the first time.

In July Dr. Flint conducted field studies in the Dismal Swamp area of Virginia and added more than 1,000 specimens to the national collection. For 2 weeks in July-August he accomplished a vigorous

field program in the West Indies, collecting more than 4,000 specimens in Jamaica and nearly 5,000 in Puerto Rico.

Associate curator Paul J. Spangler joined the staff of the division in July and subsequently has been actively engaged in the preparation of a monographic revision of the water beetle genus *Tropisternus*. Dr. Spangler has also conducted a study of the water beetles collected in Peru by the Limnology Department of the Academy of Natural Sciences of Philadelphia. He also initiated a study on the adult and immature stages of the aquatic beetles of Puerto Rico, where he collected some 10,000 specimens in mid-winter.

In addition to his Caribbean researches, Dr. Spangler made several field trips in the eastern States and one extensive one in South Dakota, Wyoming, and Montana, collecting more than 10,000 specimens. During a visit to the Museum of Comparative Zoology he completed several short papers.

Dr. Alexey Diakonoff, eminent microlepidopterist of the Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands, continued his work on Philippine and Asiatic Microlepidoptera. He will complete his studies at Leiden.

Marine Invertebrates.—Former associate curator Donald F. Squires was appointed curator of the division on June 24, 1963, at which time former curator Fenner A. Chace, Jr., was assigned to the office of the head curator of the department of zoology as senior scientist. During July 1962, Dr. Squires conferred in Wellington with officers of the New Zealand Oceanographic Institute regarding the identification and study of deep-water coral banks, and continuations of those conferences were held with the New Zealand Geological Survey staff with reference to the occurrence of such banks as fossils. The Auckland Museum and Institute was visited, and recent collections of corals were examined. While on a lecture tour to New Zealand, advantage was taken of the opportunity to examine outcroppings of fossil deep-water coral banks at two localities in Wairarapa, and a report is being prepared on those observations in cooperation with Paul Vella of the Department of Geology, Victoria University, and with the New Zealand Geological Survey. In November, preliminary explorations were conducted, with other members of the Bahamas National Trust, of the reef tracts at Lyford Cay, New Providence Island. From March 26 to May 4, 1963, field work was carried out on R/V *Chain* of the Woods Hole Oceanographic Institution, as part of the international Equalant I operation, in the area from Recife, Brazil, to Trinidad and east to 25 degrees west longitude. At the Museum Dr. Squires continued his studies of the zoogeography of the South Ocean corals, a program supported by the National Science Foundation. Studies of the corals of the Antarctic region, Patagonia, New Zealand,



A freeze-dried crab receives its final coloring before being installed in new hall of life in the sea.

and subantarctic islands are under way. A major project on the evolution and distribution of the Tertiary and extant coral faunas of New Zealand is in progress, as well as studies of adaptations of corals for life in deep waters and in those of intermediate depths.

Associate curator Thomas E. Bowman, with Juan G. Gonzalez of the University of Puerto Rico, virtually completed a report on planktonic copepods from Bahia Fosforescente, Puerto Rico, and adjacent waters. With C. D. Meyers of the Chesapeake Biological Laboratory and Steacy Hicks of the U.S. Coast and Geodetic Survey, Dr. Bowman has compiled for publication notes on the association between hyperiid amphipods and medusae in Chesapeake and Narragansett Bays and the Niantic River. He has also continued his analysis of the distribution of calanoid copepods off the southern coast of the United States.

As a participant in the International Indian Ocean Expedition from January 15 to March 17, 1963, associate curator Charles E. Cutress, Jr., visited the Indian Museum at Calcutta and studied sea anemones at Port Canning, the University of Madras, the Central Marine Fisheries Research Institute at Mandapam Camp, the Porto-Novo

Marine Biological Station, and the Institute of Science of the University of Bombay. In conjunction with this trip, sea anemone types were examined at the British Museum (Natural History) and anemone material was studied and collected at the Stazione Zoologica di Napoli. Specimens investigated during these visits will make possible the solution of major problems of long standing in the classification of the sea anemones.

Associate curator Marian H. Pettibone, who joined the staff on March 4, 1963, has continued her study of the polychaete worms of the New England region, including the waters from the Gulf of St. Lawrence to Chesapeake Bay. She has concentrated most recently on the family Spionidae and has revised parts of that family.

Museum specialist Henry B. Roberts continued his long-range studies of the comparative skeletal anatomy of the decapod crustaceans and of the importance of diagnostic characters employed in the major systems of decapod classification. Museum technician Emily C. Mandelbaum studied ostracod crustaceans in the national collections, particularly as they relate to collections made by her in Minnesota, and museum technician Maureen E. Downey worked on starfishes in the national collections, especially those of the family Asterinidae.

Research associate Waldo L. Schmitt continued the revision of the now out-of-print section on Crustaceans in the "Smithsonian Scientific Series." He also devoted an increasing amount of time to the monographic revision of the American commensal crabs of the family Pinnotheridae.

Research associate Mildred S. Wilson continued her studies on the systematics and distribution of free-living fresh and brackish-water calanoid and harpacticoid copepod crustaceans of North America. She completed two manuscripts: one, with J. C. Tash, on the genus *Eurytemora* in the Cape Thompson region of Alaska; the other on the harpacticoids of Nuwuk Lake, Alaska. Research and consultation during February at the Institute of Fisheries, University of British Columbia, added a large number of samples to the extensive collections already available to Mrs. Wilson. Study of the zooplankton of a nearly enclosed, large, deep lake on Vancouver Island has been completed, and a paper on the physical and biological features of the lake is being prepared with T. L. Northcote of the University of British Columbia. Work was started on zooplankton samples from the large lakes of the Bristol Bay Region of Alaska. Mrs. Wilson's current efforts are directed chiefly toward the completion of a report on the calanoid copepod species of North American fresh and brackish waters.

Research associate Ailsa M. Clark of the British Museum (Natural History) completed a manuscript on the echinoderms of Port Phillip,

Australia. She also completed a review of New Zealand crinoids, but that paper will not be submitted for publication until additional material becomes available. A study of brittle stars from Japan and Sakhalin in the collection of the Munich Museum is still in progress.

As in the past, the division has relied on the largely gratuitous services of specialists in other institutions for the identification of material. Grateful acknowledgment is made to the following 27 collaborators who have been willing during the past year to identify such collections, amounting to 35 shipments containing more than 20,533 specimens:

J. L. Barnard: amphipod crustaceans.	Alan G. Lewis: copepod crustaceans.
E. L. Bousfield: amphipod crustaceans.	Raymond B. Manning: stomatopod crustaceans.
Roger Cressey: copepod crustaceans.	Marvin C. Meyer: leeches.
Ralph Dexter: fairy shrimps.	Patricia Ralph: hydroids.
Joseph F. Fitzpatrick, Jr.: crayfishes.	W. J. Rees: hydroids.
J. Forest: hermit crabs.	George A. Schultz: isopod crustaceans.
John S. Garth: canceroid crabs.	Harrison R. Steeves III: isopod crustaceans.
G. E. Gates: earthworms.	Takasi Tokioka: ascidians.
Thomas Goreau: corals.	R. C. Vernon: hydroids.
Danièle Guinot: grapsoid crabs.	John W. Wells: corals.
Janet Haig: porcellanid crabs.	Mildred S. Wilson: copepod crustaceans.
E. C. Jones: copepod crustaceans.	Fred C. Ziesenhenné: brittle stars and sea urchins.
N. S. Jones: cumacean crustaceans.	
Louis S. Kornicker: ostracod crustaceans.	
Karl Lang: tanaid crustaceans.	

Mollusks.—Curator Harald A. Rehder occupied most of his research time with study of the marine mollusks of the Indo-Pacific region. Dr. Rehder spent two months between January and March in a field study of the mollusks on the island of Tahiti, especially those in the coastal area immediately to the east of Papeete. The results of this trip will be the basis for future field work in the southern Polynesian area. He completed a manuscript on the non-marine mollusks of Quintana Roo, Mexico, and continued his studies of the family Harpidae of which he is preparing a monograph.

Associate curator Joseph P. E. Morrison made further progress on his study of the brackish-water mollusks of New Caledonia, based largely on his own collections made in 1960–61. Dr. Morrison's study of the mollusks of the brackish waters in the Gulf States, particularly the families Hydrobiidae and Mactridae, was nearly completed at the end of the year. He completed a review of the American Siphonariidae, including a check list, a taxonomic revision, and observations on the life history of members of this family.

Associate curator Joseph Rosewater spent 6 weeks in February and March at the Eniwetok Marine Biological Laboratory, Marshall Is-



Growing interest in oceanography makes exhibits such as this display of coelenterates in the new hall of life in the sea both timely and educational.



Hall of life in the sea. Hundreds of models are required to illustrate the diversity of sea-dwelling animals.

lands, in continuation of his studies on the families Tridacnidae and Littorinidae of the Indo-Pacific region. As a result he has been able to bring to near-completion his monograph of the Tridacnidae. Dr. Rosewater also submitted for publication a paper on a new species of *Periploma* from the Gulf of Mexico, with notes on the classification of the genus.

Research by visiting investigators.—Among visiting scientists who, in addition to staff members of Federal agencies, studied the zoology research collections during the year were:

Mammals: Sydney Anderson, American Museum of Natural History; Fernando Diaz d'Avila-Pires, Museu Nacional, Rio de Janeiro; James L. Chamberlain, Randolph-Macon Woman's College, Va.; D. H. S. Davis, Medical Ecology Centre, Johannesburg; Francis Harper, Chapel Hill, N.C.; Donald F. Hoffmeister, M. Raymond Lee, and Iyad Nader, Univ. of Illinois; D. A. Hooijer, Rijksmuseum van Natuurlijke Historie, Leiden; Karl F. Koopman, American Museum of Natural History; Russell E. Mumford, Purdue Univ.; Pyong-Oh Won, Seoul.

Birds: C. W. Benson, Game and Tsetse Department of Northern Rhodesia; R. A. Falla, Dominion Museum, Wellington, New Zealand; Ernst Schuz, Statl. Museum für Naturkunde, Stuttgart-O; Paul Schwartz, Caracas; C. Lynn Hayward, Brigham Young University; Erwin Stresemann, Berlin; José I. Borrero, Universidad Nacional de Colombia, Bogota; Kenneth C. Parkes, Carnegie Museum; Pyong-Oh Won, Kyung Hee University, Seoul; Robert W. Storer, Univ. of Michigan; D. A. Rabor, Silliman Univ., Philippines; Robert E. Kuntz, Naval Medical Research Institute; Lord Medway, Univ. of Malaya; R. Charles Long, Toronto; Joe T. Marshall, Univ. of Arizona; Laurence C. Binford, Louisiana State Univ.; Jorge Navas, Museo Argentino de Ciencias Naturales, Buenos Aires; Clarence Cottam, Welder Wildlife Foundation, Sinton, Tex.

Reptiles and Amphibians: Fred Medem, Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Bogotá; C. J. Goin, Univ. of Florida; Richard Highton, Univ. of Maryland; Edward H. Taylor, Univ. of Kansas; W. G. Lynn, Catholic Univ.; Janis Roze, Universidad Central de Venezuela, Caracas; J. A. Rivero, Univ. of Puerto Rico, Mayagüez; and David Langebartel, Univ. of Wisconsin.

Fishes: James E. Bohlke and James C. Tyler, Academy of Natural Sciences of Philadelphia; Margaret S. Bradbury, Hopkins Marine Station, Calif.; Norma Chirichigno, Lima, Peru; E. J. Crossman and W. B. Scott, Royal Ontario Museum; Neal R. Foster, Leslie W. Knapp, Robert V. Miller, and William J. Richards, Cornell Univ.; Warren C. Freihofer and George S. Myers, Stanford Univ.; Carl L. Hubbs, Laura C. Hubbs, Bert N. Kobayashi, and Richard H. Rosenblatt, Scripps Institution of Oceanography; Reizo Ishiyama, Shimomoseki College of Fisheries, Japan; C. C. Lindsey and J. D. McPhail, Univ. of British Columbia; Donald E. McAllister, National Museum of Canada; G. F. Mees, Western Australian Museum; Teruya Uyeno, Univ. of Michigan; John E. Randall, Univ. of Puerto Rico; Frank H. Talbot, South African Museum.

Insects: Alexey Diakonoff, Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands; Karlis A. Princis, Zoological Institute, Univ. of Lund, Sweden; John G. Franclemont, Cornell Univ.; M. Mackauer, Canadian Department of Agriculture, Belleville, Ontario; J. Linsley Gressitt and M. Sasakawa, Bishop Museum, Honolulu; George M. Buxton, State Department of Agriculture, Sacramento, Calif.; J. Maldonado Capriles, Univ. of Puerto Rico; Jerry A. Powell,

Robert L. Usinger, E. Gordon Linsley, and Ray F. Smith, Univ. of California, Berkeley; Bryant Reese, Fresno State Univ.; Elwood C. Zimmerman, Peterborough, N. H.; Paul H. Arnaud, Jr., California Academy of Sciences; N. Lodos, Aegean Univ., Izmir, Turkey; Gordon F. Bennett, Ontario Research Foundation, Toronto; Miroslav Capek, State Forest Institute, Banska Stiavnica, Czechoslovakia; W. T. M. Forbes, Cambridge, Mass.; J. T. Polhemus, Englewood, Colo.; W. R. M. Mason, Canadian Department of Agriculture, Ottawa; Koji Yano, Kyushu Univ., Japan; Necmiye Dijyar, Zirdi Mücadele Enstitüsü, Ankara, Turkey; Nicholas S. Obraztsov, American Museum of Natural History; B. I. Balinsky, Univ. of Witwatersrand, Johannesburg, South Africa.

Marine Invertebrates: Frederick M. Bayer, Institute of Marine Science, Univ. of Miami; E. L. Bousfield, National Museum of Canada; M. J. Cerase-Vivas, Duke Univ. Marine Laboratory; Diva Diniz Correa, Universidade de São Paulo, Brazil; Roger F. Cressey, Boston Univ.; Edward B. Cutler, Lynchburg College; Elisabeth Deichmann, Museum of Comparative Zoology, Harvard Univ.; Thomas Goreau, Univ. College of the West Indies; George D. Grice, Jr., Woods Hole Oceanographic Institution; Janet Haig, Allan Hancock Foundation; Paul L. Ilg, Univ. of Washington; Meredith L. Jones, American Museum of Natural History; Joseph Kannankeril, Delhi Univ., India; Siro Kawaguti, Okayama Univ., Japan; Frank J. S. Maturo, Jr., and Reginald J. Scolaro, Univ. of Florida; George C. Miller, Fish and Wildlife Service; Eric L. Mills, Yale Univ.; Francisco Nemezo, Univ. of the Philippines; David M. Raup, Johns Hopkins Univ.; Mary E. Rice, Univ. of Washington; Arnold Ross, Army Biological Warfare Unit; Jack T. Tomlinson, San Francisco State College; Austin B. Williams, Institute of Fisheries Research, Univ. of North Carolina; and Victor A. Zullo, Marine Biological Laboratory, Woods Hole, Mass.

Mollusks: C. O. van Regteren Altena, Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands; Vincent Conde, McGill Univ.; Richard K. Dell, Dominion Museum, Wellington, New Zealand; Vida C. Kenk, Museum of Comparative Zoology; James H. McLean, Stanford Univ.; David Nicol, Southern Illinois Univ.; A. W. B. Powell, Auckland Institute and Museum, Auckland, New Zealand; Robert Robertson, Academy of Natural Sciences of Philadelphia; Norman E. Weisbord, Florida State Univ.

Botany

Head curator Jason R. Swallen revised his manuscript of the grasses for the flora of the Sonoran Desert, to be published by Stanford University. Dr. Swallen prepared a paper on two new species of *Trichachne* and *Digitaria* and wrote a book review of "Taxonomy of *Setaria* (Gramineae) in North America." He also continued his studies of the grasses of southern Brazil, and of Trinidad and Tobago.

Phanerogams.—Curator Lyman B. Smith continued his studies in the Bromeliaceae and in the flora of Brazil.

Associate curator Richard S. Cowan continued his research on the leguminous genus *Swartzia*; much of the manuscript is now ready for the editor, illustrations have been prepared, and distributional maps have been completed. In connection with his work on the exhibits in the future hall of plant life, Dr. Cowan conducted a field

program to collect data and materials in the desert of Baja California. Midway in the year he assumed the post of assistant director of the Museum of Natural History.

Associate curator Velva E. Rudd completed a revision of the American species of *Ormosia* and a paper on the *Acacia cornigera* complex as well. In connection with her research on the Leguminosae of Mexico and Central America, Dr. Rudd spent ten days collecting in Mexico and visited important herbaria there and in the United States. She continued preparation of a floristic treatment of the papilionoid legumes of Mexico, and she also has underway a paper on the Leguminosae of the Yucatan Peninsula.

Associate curator John J. Wurdack continued his researches on the Melastomataceae of the New World tropics, with particular emphasis on materials collected in Ecuador and Peru. His field studies and collecting in north Peru, which were in progress at the end of the last fiscal year, were completed in December after eight months, most of which time was spent in the region of high elevation near Chachapoyas; the field work in the last few months of the trip was along the Río Marañón from below Pongo de Rentema to Pongo de Manseriche. Dr. Wurdack's investigations of the family in this poorly known part of Peru and in adjacent Ecuador will be greatly facilitated by these materials, of which some are new taxa and others are of rare but previously described species.

Assistant curator Stanwyn G. Shetler made biosystematic investigations of the *Campanula rotundifolia* complex. He completed for publication a paper on the vascular plants in the vicinity of Cape Sabine, Alaska, and a synoptical treatment of the genus *Campanula* in North America. At the end of the year Mr. Shetler was in the field in Alaska on an expedition, during which he planned to collect in the Brooks Range and to visit and photograph possible future study sites in which to obtain data for constructing an Alaskan botanical exhibit.

Research associate José Cuatrecasas completed a revision of the genus *Theobroma*, from the fruit of which the cocoa of commerce is prepared. He also continued the preparation of a revision of the Colombian Compositae, which number about 800 species.

Research associate Kitty F. Parker published a paper on *Hymenoxyis*, a genus of the Compositae, the family to which she continues to devote most of her research attention.

Grasses.—Associate curator Thomas R. Soderstrom completed a study of specimens collected last year on the Kaieteur Plateau, British Guiana; the resulting manuscript included six new species. He also made, with Dr. Henry Decker, Ohio Wesleyan University, an anatomical and morphological study of a new genus, the material for which

he collected in Mexico in 1958. The anatomical portion of this study, which involved comparisons with presumably closely related genera of the Aeluropodeae, raised serious questions regarding relationships within this tribe. Dr. Soderstrom also continued a revisionary treatment of the genus *Zeugites*.

Mrs. Agnes Chase, honorary fellow, continued her work on the indexing of grass species. The "Index to Grass Species" was published in three volumes late in 1962 after many years of devoted labor by Mrs. Chase.

Research associate F. A. McClure advanced his studies of the redefinition of the genera of the Bambusoideae with major attention to the bamboos of the New World. The important decision as to the taxonomic disposition of the type species of the genus *Arundinaria* involved an extended study, the results of which were prepared for publication.

Ferns.—Curator C. V. Morton devoted most of his research time to the study of fern types, preparing a paper commenting on and re-identifying a large number of historic specimens which have remained essentially unknown or which have been variously interpreted in the past. He also continued his research with several groups of phanerogams, especially on types of Brazilian Solanaceae, and on the Gesneriaceae. A treatment of one section of the genus *Achimenes* was completed and published during the year, and several other papers on the Gesneriaceae describing incidental new species were also published.

Cryptogams.—Curator Mason E. Hale made very substantial progress on his study of the lichen genus *Parmelia*. Type specimens on loan to Dr. Hale from other herbaria have been critically examined and evaluated, and, with the collaboration of Dr. Syo Kurokawa, a manuscript was completed which included a revision of the classification of subgenus *Parmelia* and descriptions of 58 new species. Dr. Hale is presently completing a taxonomic study of *Parmelia*, subgenus *Amphigymnia*, which includes 106 species.

Associate curator Harold Robinson completed a study of certain species of the moss genus *Brachythecium* in western North America, and worked with a collection of bryophytes from Assam. He conducted field studies in Mexico in December and again in May, collecting on each occasion considerable quantities of material for study.

Associate curator Richard Norris, who joined the staff in December, immediately departed to participate in the International Indian Ocean Expedition. He has conducted shipboard research on nannoplankton during two cruises of the *Anton Bruun*.

Associate curator Paul Conger continued studies of the Antarctic collections of diatoms of Sir Douglas Mawson, and his monograph of

Grammatophora was further advanced. Mr. Conger has also prepared a paper on an interesting new diatom from Hawaii.

Plant Anatomy.—Curator William L. Stern, accompanied by R. H. Eyde and Edward S. Ayensu, conducted a field program in Panama during February and March for the purpose of collecting fossil woods, in continuation of a research project on the fossil flora of the Tonosí-Santiago Basin. Fossil woods were collected on the Azuero Peninsula, particularly in the environs of the village of Ocutí. Mr. Ayensu completed research on the anatomy and ontogeny of the stem in the Passifloraceae under the guidance of Dr. Stern.

Associate curator Richard H. Eyde completed two manuscripts on the comparative anatomy and phylogeny of the Nyssaceae. He has now expanded his research interests to include Cornaceae, Alangiaceae, and Garryaceae, families which are believed to be related to the Nyssaceae. His current study is based primarily on the anatomy of flowers and fruits, including available fossils of these parts.

Research by visiting investigators.—An ever increasing number of professional people and staff members of various Government agencies make use of the facilities of the National Herbarium and the department of botany. Among those who visited the department during the past year were:

John H. Beaman, I. M. Brodo, and Henry Imshaug, Michigan State Univ.; E. D. Rudolph and Clara Weishaupt, Ohio State Univ.; Bassett Maguire, New York Botanical Garden; George L. Church, Brown Univ.; L. O. Williams, Chicago Natural History Museum; John R. Reeder and Charlotte Reeder, Yale Univ.; Alma Walker, Univ. of Georgia, Athens; Arturo Gonzalez-Mas, Univ. of Puerto Rico; I. S. Zaneveld, Norfolk, Va.; J. L. Ablauf, Univ. of Arizona; Donovan S. Correll, Texas Research Foundation; Alice F. Tryon, Rolla M. Tryon, Jr., and L. I. Nevling, Jr., Harvard Univ.; K. M. Aziz, Duke Univ.; P. R. Burkholder, Lamont Laboratory, New York; Mrs. Marian Robertson, Academy of Natural Sciences of Philadelphia; F. C. Oldham and R. A. Pursell, Pennsylvania State Univ.; John T. Mickel, Iowa State Univ.; W. D. Reese, Univ. of Southwestern Louisiana; Joseph Ewan, Tulane Univ.; George Bunting, Bailey Hortorium of Cornell Univ.; H. L. Li, Morris Arboretum, Philadelphia; G. B. Ownbey, Univ. of Minnesota; Donald Ugent, Univ. of Wisconsin; Charles B. Heiser, Indiana Univ.; George E. Lindsay, Natural History Museum, San Diego.

Faustino Miranda, Universidad Nacional de México; Julian A. Steyermark, Instituto Botánico, Caracas, Venezuela; James B. Phipps, Univ. of Western Ontario; Job Kuijt, Univ. of British Columbia; J. Rzedowski, Instituto Politécnico Nacional, Mexico City; R. H. Capurro, Museo Argentino de Ciencias Naturales, Buenos Aires; A. Hunziker and Rosa Scolnik, Museo Botánico, Córdoba, Argentina; M. López Figueiras, Palmira, Colombia; C. Russell Metcalfe, Royal Botanic Gardens, Kew; R. Ross, British Museum (Natural History); A. Frey-Wyssling, Zurich; Taizo Inokuma and Daitsu Satake, Institute of Forest Botany, Univ. of Tokyo; Miss F. Uyenco, Univ. of the Philippines; W. Meijer, Forestry Department, Sandakan, North Borneo; L. A. S. Johnson, Royal Botanic Gardens, Sydney; Miss L. M. Angel, Univ. of Adelaide.

Geology

Head curator G. Arthur Cooper continued his researches on the Permian brachiopods of the Glass Mountains in collaboration with Dr. R. E. Grant of the U.S. Geological Survey. The descriptive portion of their manuscript has been completed, but revision of the manuscript and illustrations will still occupy considerable time. In connection with this joint project, more than a thousand photographs



Among new facilities provided by east wing is this chemistry laboratory in the division of mineralogy and petrology.

have been made by Mr. Jack Scott. Drs. Cooper and Grant have also prepared a short paper on new stratigraphic terms to clarify discussions of the stratigraphy of the Glass Mountains.

Mineralogy and petrology.—Curator George Switzer completed his annual review of the diamond industry and continued research on several long-term projects. During the year he visited mineralogical museums in Philadelphia, New York, Toronto, and Chicago, and attended annual meetings of several mineralogical and gem organizations.

Associate curator Paul E. Desautels continued his efforts to improve contacts between the museum and sources for specimen materials for research and exhibit purposes; he attended several exhibitions of minerals and visited numerous specimen dealers, as well as private collectors; and he spoke to mineralogical societies in several cities, from the east coast to the Pacific Northwest.

Chemist Roy S. Clarke, Jr., presented two papers at the Gordon Research Conference on Inorganic Chemistry. His search for chemical analytical methods for studying meteorites continued, with increased attention to studies of iron meteorites; major element analyses of the Bogou, Upper Volta, and of the Angelica, Wis., irons were completed and studies of the minor elements are currently underway. The Martha's Vineyard tektite and its zirconia inclusion remain under cooperative study with other investigators.

Associate curator E. P. Henderson, with chemist Roy S. Clarke, Jr., attended the Conference on Analytical Methods for Meteorites at the



Office-laboratory of curator of invertebrate paleontology in new east wing.

British Museum (Natural History) early in September. At this time they were able to examine the meteorite and tektite collections in London, and to visit research institutes and universities in Delft and Utrecht in the Netherlands, in Mainz and Heidelberg in Germany, and in Copenhagen, Denmark.

Mr. Henderson studied the detailed metallography and morphology of the Bogou, Upper Volta, iron meteorite; considerable attention was given to microhardness measurements of the metal phases of this body and of its inclusions of schreibersite and cohenite. Investigations of stony meteorites from Saudi Arabia, and Clovis, New Mexico, and of the Angelica, Wis., iron meteorite are in progress.

Invertebrate paleontology and paleobotany.—Curator Richard S. Boardman in collaboration with Dr. John Utgaard has continued his investigations of the Paleozoic Bryozoa; basic problems of principle and technique have been re-examined with rewarding results. On the basis of sorting of about 2,000 thin-sections of poorly known Middle Ordovician Bryozoa from the Arbuckle Mountains of Southern Oklahoma Dr. Boardman finds that there are many new genera to be described, as well as new evidence for phylogenetic connection between genera; the sections were prepared by J. E. Merida of the U.S. Geological Survey and by L. Ford of the Museum staff. Dr. Boardman served as a visiting lecturer for the American Geological Institute in March, visiting the geology departments at the University of New Hampshire and Colgate University. He also attended the annual meetings of several professional geological organizations.

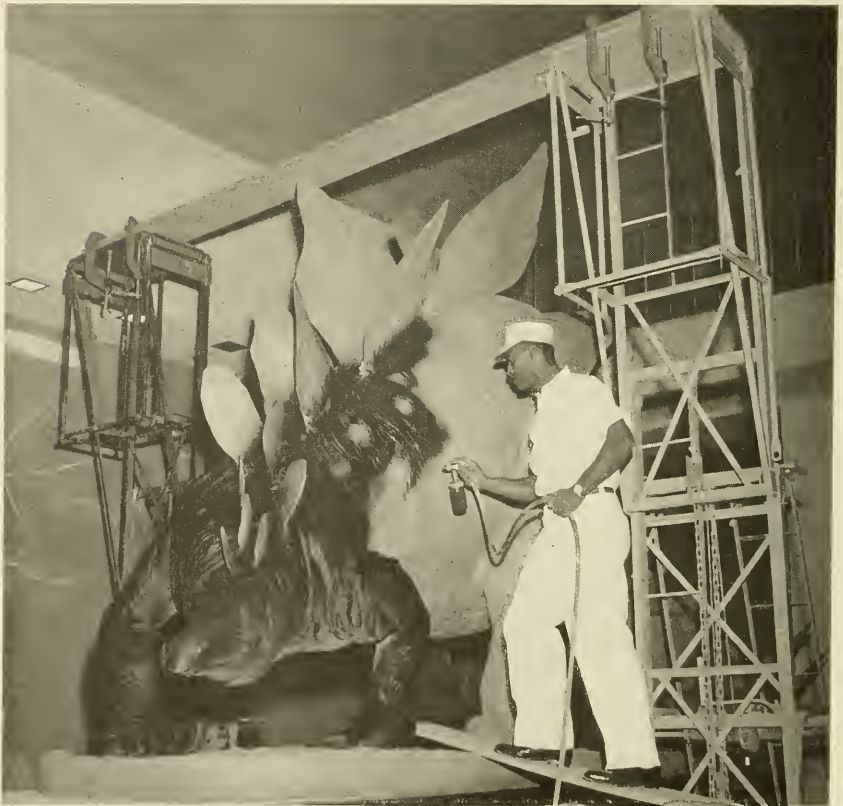
Richard Cifelli advanced significantly his studies of planktonic Foraminifera by participating in two oceanographic expeditions. The first of these, aboard the R/V *Chain*, was as a participant in the International Tropical Atlantic Ocean Expedition. The Foraminifera in the nearly 100 plankton hauls taken during the five weeks' cruise in the tropical waters of the Western Atlantic were of particular interest to Dr. Cifelli in connection with his long-range program to study the relationship between oceanic currents and the distribution of surficial planktonic forms of Foraminifera. From the standpoint of this group of organisms, Dr. Cifelli regarded as highly significant the long-cores and numerous bottom sediment samples collected from the abyssal plain, the continental slope, the Orinoco Shelf, and the Gulf of Paria. Dr. Cifelli made his second cruise on the R/V *Crawford* in October to collect planktonic Foraminifera; the route extended from Woods Hole, Mass., to Puerto Rico and Bermuda.

Associate curator Francis M. Hueber joined the division as paleobotanist in November. In continuation of research begun as a staff member of the Geological Survey of Canada, Dr. Hueber has obtained on loan from the Survey their extensive collections of Devonian

plant remains from the Gaspé region of Quebec, Canada; his program of redescribing and revising the classification of the Gaspé Devonian flora will continue here.

Associate curator Porter M. Kier completed a taxonomic study of the echinoids from the Tamiami and Caloosahatchee Formations, and the cassiduloid echinoid section of the "Treatise of Invertebrate Paleontology." Dr. Kier has also begun a revision of the systematics of the Paleozoic echinoids, including descriptions of many new forms. A particular effort is being made to discover evolutionary trends within this group, so that a more natural classification can be made.

Associate curator Erle G. Kauffman in October spent two weeks studying at the U.S. Geological Survey in Denver, Colo., working on joint studies of Cretaceous pelecypods and stratigraphy with W. A. Cobban of the Survey, and making a general review of the collections



A reconstruction of *Stegosaurus* is retouched before being installed in the hall of fossil reptiles.



Various Late Cretaceous dinosaurs being set in place in the new hall by members of the paleontology laboratory staff.

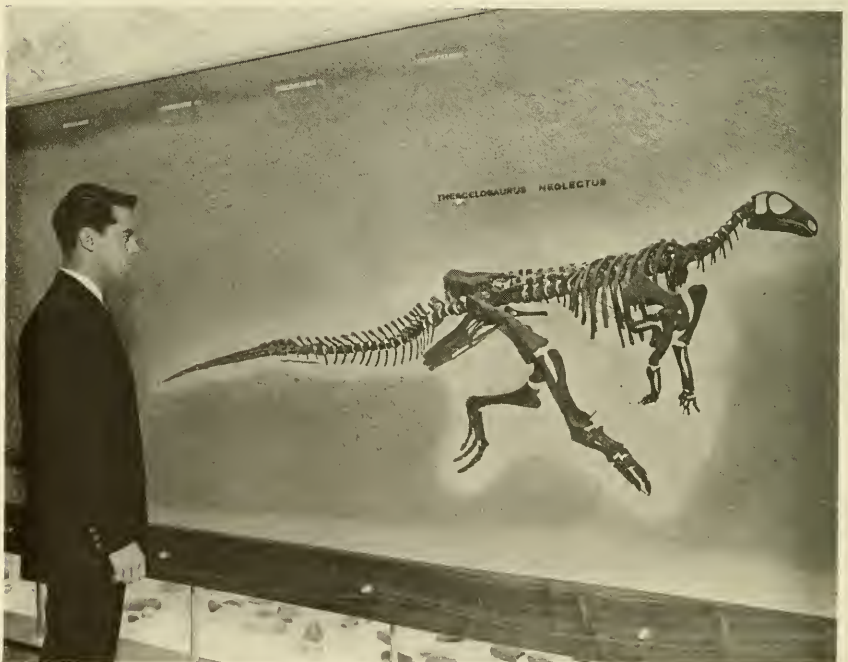
housed there. He also spent a week at the American Museum of Natural History in New York, examining types and biological collections of Mesozoic pelecypods, and consulting with Dr. Norman D. Newell on taxonomic problems in the group. With Drs. Yochelson and Sohl of the U.S. Geological Survey Dr. Kauffman completed a paper on collecting concretions, and another on collecting mollusks; both papers are to be included in a handbook of paleontologic techniques. He has also completed, with coauthors, three other papers on his specialties and others are underway.

With museum specialist Frederick Collier, Dr. Kauffman spent six weeks completing a biostratigraphic study of the Lower Colorado Group along the Front Range of the Colorado Rockies, tracing faunal zones, refining the zonation using ammonites and pelecypods, tracing disconformities, and changes in facies. They were able to correlate sixty detailed stratigraphic sections along the Front Range with sections in northern New Mexico and southern Wyoming, as well as with intermontane parts of the middle Rockies. Approximately 4,000 specimens were collected, predominantly pelecypods and ammo-

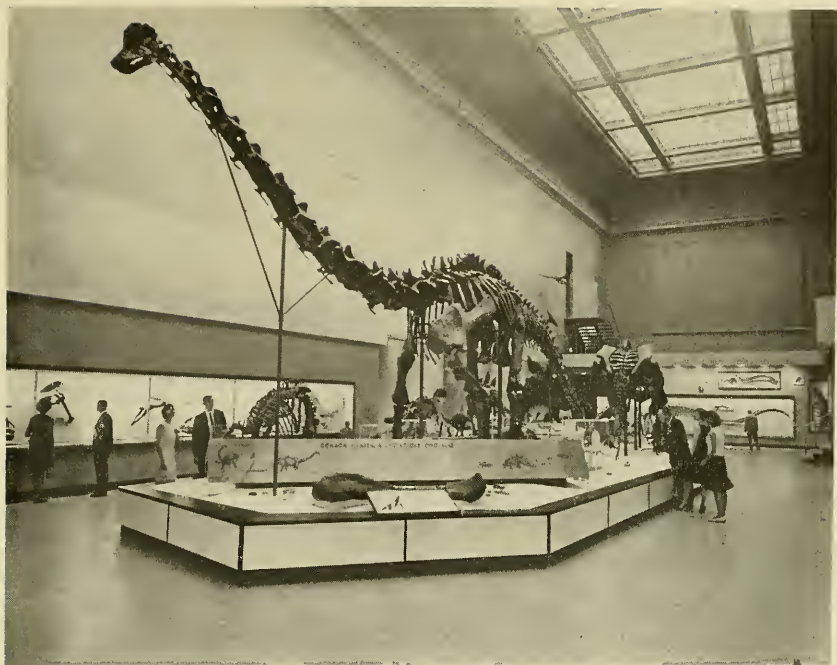
nites. Dr. Kauffman, with Dr. Norman Sohl of the U.S. Geological Survey, also made short excursions to the Upper Cretaceous outcrops of Maryland, as part of a continuing survey of this rich but incompletely known fauna. Large collections from near Brightseat, Md., include many species previously unreported from the Cretaceous of the Middle Atlantic Coast, particularly species of gastropods.

Museum specialist Frederick Collier is studying the rhomboporoid Bryozoa of some Middle Devonian strata of New York State for a master's thesis at George Washington University under the direction of Dr. Boardman. The specimens which form the basis for this study were collected on a 3-weeks' trip in May.

Vertebrate paleontology.—Curator C. L. Gazin continued his morphological study of the early Eocene condylarthran *Meniscotherium*, particularly its peculiar geographic and stratigraphic distribution within the Wyoming-Colorado-New Mexico area. This has led to a systematic review of the composition of the associated local faunas and of the character of contemporary faunas lacking this precociously selenodont genus, together with consideration of the character of the sediments involved in each case. For the 1963 edition of the



Unique skeleton of *Thescelosaurus neglectus* in the renovated hall of fossil reptiles.



The renovated hall of fossil reptiles was opened in June 1963. On the center island stands a mounted skeleton of *Diplodocus*. At the east end of the hall (far right) is the balcony.

guidebook of the Rocky Mountain Association of Geologists Dr. Gazin rewrote and updated a study, originally published in 1941, of the Paleocene mammals of the Denver Basin. In connection with his studies Dr. Gazin visited Princeton University, the American Museum of Natural History, and Yale University's Peabody Museum. He also attended meetings of various professional organizations, and he again served in the National Research Council as chairman of the Earth Sciences Committee for the evaluation of applications to the National Science Foundation for postdoctoral fellowships.

Associate curator D. H. Dunkle returned to the Museum in December after a 2-years' detail in Pakistan for the U.S. Geological Survey. Since then he has nearly completed the description of a previously unrecognized amioid fish from the marine Upper Cretaceous Niobrara formation of western Kansas. Several new occurrences of the specialized antiarch fish *Bothriolepis* were noted among collections referred for identification by the U.S. Geological Survey; a note to report these was prepared because, as an infallible indicator of

freshwater environments of Upper Devonian age, *Bothriolepis* is of great paleotectonic usefulness.

Associate curator Nicholas Hotton III embarked on a systematic morphological study of the suborder Dicynodontia, the herbivorous therapsid reptiles of South Africa. Preliminary work, based upon specimens collected in 1961 which are now completely prepared, indicates that the suborder may be divided into at least two major adaptive types; their morphology is being compared in the expectation



The third in a series of four paleontological murals by Jay H. Matternes, this scene depicts Miocene mammalian life in the new hall of fossil mammals.

that it will shed light on the ecological relationships of the dicynodonts. Since remote ancestors of the mammals are included among contemporary relatives of the dicynodonts, this work will perhaps also contribute to the understanding of the ecological context of mammalian origins.

Dr. Hotton, with J. W. Kitching of the Bernard Price Institute in Johannesburg, South Africa, in October carried on field work in a variety of formations ranging in age from Permian to Oligocene in South Dakota, Wyoming, New Mexico, and Texas. Much of the

material obtained was sent to the Bernard Price Institute, partly in return for the excellent South African Beaufort material that Dr. Hotton collected the preceding year with the assistance of Mr. Kitching. In addition to the field work, Dr. Hotton and Mr. Kitching visited geological centers at the Chicago Museum of Natural History, the University of Colorado, and the U.S. Geological Survey offices at Denver.

Dr. Remington Kellogg, research associate and retired Director of the U.S. National Museum, has undertaken studies concerned with an interpretation of the developmental history of the mysticetes, the suborder of whales characterized by the presence of blades of whalebone or baleen in the upper jaws. The Mysticeti are represented in recent faunas by several genera which are fairly well characterized by cranial differences and by a rather large number of fossil forms ranging in age from Oligocene to and including the Pleistocene, but, unfortunately, many are based on scanty remains. Commencing with the more generalized cetacean skull and noting the modifications that have occurred in the course of geologic time, it becomes apparent that the possibilities for remodeling the cetacean cranium involves many cranial bones. Various types of telescoping of the bones, with the various intermediate stages, are being examined in an effort to determine the underlying cause for such remodeling trends.

Research by visiting investigators.—The division of invertebrate paleontology and paleobotany had 64 American and foreign visitors during the year, 32 of whom came to study the collection of Foraminifera. Approximately 40 paleontologists outside the Museum are currently working on undescribed specimens from the collections. Among the other visiting investigators, in addition to staff members from Federal agencies, who worked in the department of geology during the year were:

Dr. A. F. Leanza, Argentina; A. Fatmi, Pakistan; Dr. A. A. Opik, Bureau of Mineral Resources, Canberra, Australia; Dr. Darcy Closs, Porto Alegre, Brazil; Dr. C. W. Pitrat, Univ. of Kansas; Mr. Farouk Mohamed, Cairo, Egypt; Eugene Cameron, Univ. of Wisconsin; Alvin J. Cohen, Univ. of Pittsburgh; E. R. Du Fresne, Ted M. Cavender, and E. C. Olson, Univ. of Chicago; Shelton P. Applegate, Duke Univ.; Walter Auffenberg, Univ. of Colorado; Donald Baird, Princeton Univ.; David Bardack, Theodore H. Eaton, Jr., and E. Raymond Hall, Univ. of Kansas; Craig C. Black, Carnegie Museum; Edwin H. Colbert and Leonard B. Radinsky, American Museum of Natural History; Theodore Downs, Los Angeles County Museum; Gordon Edmund, Royal Ontario Museum; D. A. Hooijer, Rijksmuseum van Natuurlijke Historie, Leiden; Ernest L. Lundelius, Jr., Univ. of Texas; John S. McIntosh and John H. Ostrom, Peabody Museum, Yale Univ.; Clayton E. Ray, Univ. of Florida; A. S. Romer and Keith Thomson, Museum of Comparative Zoology; Dale Russell, Columbia Univ.; Hans-Ulrich Schmincke, Johns Hopkins Univ.; and Heinrich Toots, Univ. of Wyoming.



Study collections of invertebrate paleontology installed in east wing.

Oceanography

Dr. I. E. Wallen, assistant director for oceanography, actively continued the development of an oceanography program for the Institution, facilitating and assisting in the organization of oceanographic field work by staff members in the departments of zoology, botany, and geology. The establishment and functioning of the Smithsonian Oceanographic Sorting Center is perhaps the most important single accomplishment of the first year of the oceanography program.

The Sorting Center is designed to provide assistance of several kinds to taxonomic specialists both in Federal and non-Federal establishments. A principal function is to sort to a practical taxonomic level the multitude of plants and animals collected on oceanic cruises. Upon request of the collector, the Sorting Center arranges with specialists in various groups to identify the collections. It also acts as a center for receiving and systematically organizing taxonomic and ecological data which may have particular value to marine ecologists and biogeographers. Dr. H. Adair Fehlmann is supervisor of the Sorting Center, which was in the charge of his assistant, Mrs. Beatrice L. Burch, until his arrival in mid-June. Museum specialist La Nelle Peterson and five museums aids complete the professional staff.

To give the staff practice in receiving, sorting, accessioning, and record-keeping, the technicians of the Sorting Center processed fourteen accessions, consisting of 2,371 lots of over 68,460 specimens, from the Museum of Natural History. In addition, valuable material received from the Geological Survey and the Lamont Geological Observatory is being sorted for distribution to appropriate specialists. The Center is particularly fortunate to have the advisory services of Dr. J. H. Wickstead, marine biologist from the Laboratory of Marine Biological Association of the United Kingdom at Plymouth, England. At the end of the year Dr. Wickstead began a 3-months' period during which he will assist in the training of technicians in the sorting, and the care and preservation of plankton received from the various expeditions. He will also provide guidance to the organizing of this new facility.

Staff participation in specific research projects and oceanographic research cruises are treated in the reports of the departments of the Museum of Natural History involved in the oceanography program.

Receiving specimens at the Smithsonian Oceanographic Sorting Center.





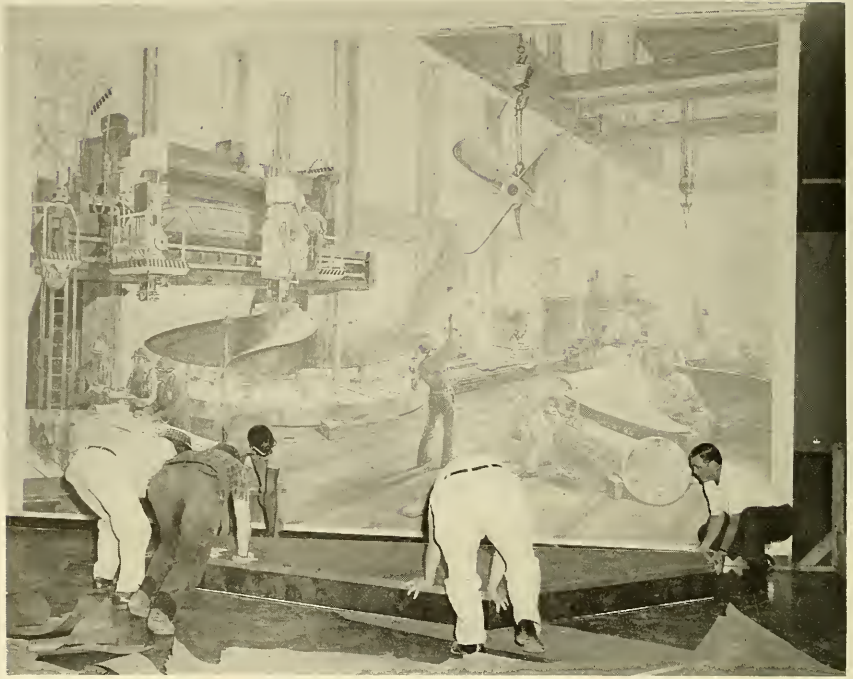
Top: Dr. Wickstead (left) manipulates a fine wire loop to sort plankton organisms on a tray of his own design. Museum technician (center) learns the distinctive characteristics of a benthic specimen from the Gulf of Mexico. Identification cards (right) expedite the process of learning to distinguish the more than 100 major groups of bottom-dwelling invertebrates.





Bottom: Tally of specimens is checked and recorded (left) by collection station and taxonomic category as an aid to specialists who will identify them. Station list is prepared from field collection records by museum specialist LaNelle Peterson (right), who checks location of the station on chart. Specimens are packed (center) in glass jars or sealed in plastic bags as Dr. H. Adair Fehlmann (left), supervisor of the Smithsonian Oceanographic Sorting Center, checks the shipment.





Installing an exhibits platform in the hall of tools of the Museum of History and Technology. The background exhibit, painted by R. McGill Mackall, already in place, depicts the making of marine propellers in a large machine shop.

MUSEUM OF HISTORY AND TECHNOLOGY

Science and Technology

Head curator R. P. Multhauf, with professor Victor F. Lenzen of the University of California, completed a paper on the development of instruments for the measurement of gravity. He is continuing his investigation into the early history of chemistry, and has begun a report on the use of calculating machines in science and engineering. Dr. Multhauf presented papers to the International Congress of the History of Science and to a local section of the American Chemical Society. He has been elected an editor of the journal *Technology and Culture*.

Physical Sciences.—Curator Lester C. Lewis, who resigned from the staff during the year, engaged in research on the history of spectrophotometry and on the history of research on molecular beams.

Associate curator Walter F. Cannon has spent the year in England on a research project entitled "The Scientific Community in England, 1820-1860," under a grant from the National Science Foundation.

Mechanical and civil engineering.—Curator Silvio A. Bedini completed three papers on 17th-century Italian compound microscopes, on Galileo and time measurement, and on the 16th-century lapidary lathe of the Medici archdukes. Mr. Bedini has in progress a handbook on antique scientific instruments, a biographical dictionary of Italian scientific practitioners and instrument makers, and a paper on unusual documentary sources for scientific instruments. Mr. Bedini also presented papers at the International Congress of the History of Science, and at a symposium on automata convened by the University of California at Los Angeles. He was awarded the Usher Prize of the Society for the History of Technology for the best paper published in its journal last year.

Associate curator Edwin A. Battison has been engaged in a comprehensive study of the life and works of the 19th-century American inventor Thomas Blanchard, and the paper resulting from this study is currently nearing completion. He has also given several lectures during the year to technical organizations. An alphabetical card index of approximately 6,000 names of American patentees, covering the years 1847 through 1849, has been prepared by Mr. Battison with Mrs. Betty H. Wilson.

Associate curator Robert M. Vogel completed and submitted for publication a paper on tunnel engineering.

Transportation.—Curator Howard I. Chapelle has engaged in research which is expected to result in a publication tentatively entitled "The Search for Speed under Sail in North America, 1700-1855." He also acted as consultant on several matters: He assisted the Governor of Mississippi on the possible recovery of the gunboat *Cairo*; he consulted with the commission engaged in the reconstruction of Columbus' flagship *Santa Maria* for the New York World's Fair; and, with Mr. William E. Geoghegan, he assisted the Department of the Navy in the compilation of a list of Confederate naval vessels. Mr. Chapelle in March presented a paper to a symposium on underwater archeology.

Associate curator John H. White, Jr., completed four manuscripts on one phase or another of the history of the development of railway transport. He also continued his work on a portfolio of American locomotive drawings and on the history of early American railroad cars.

Museum specialist Donald H. Berkebile completed an entry for the *Encyclopedia Americana* on trucks and trucking, and is currently engaged in studies of patented hubs and of the Liberty truck. He assisted the National Park Service in the reconstruction of an ox cart.

Electricity.—Curator Bernard S. Finn, who joined the staff during the last year, completed a paper on the history of theory and experiment on the speed of sound, and has begun work on a catalog of the electric meter collection. Dr. Finn was awarded the Ph. D. degree in the history of science by the University of Wisconsin in January; the subject of his thesis was “Developments in Thermoelectricity, 1850–1920.”

Medical sciences.—Dr. Sami K. Hamarneh produced two research papers on medieval science in Islam, as well as three general publications. He presented a lecture at the Medical College of Virginia on Arabic medicine and its influence on Western medical thought in the Middle Ages.

Research by visiting investigators.—Among the scholars, students, and other interested individuals, in addition to staff members of various Federal agencies, who visited the department during the year to use the collections were:

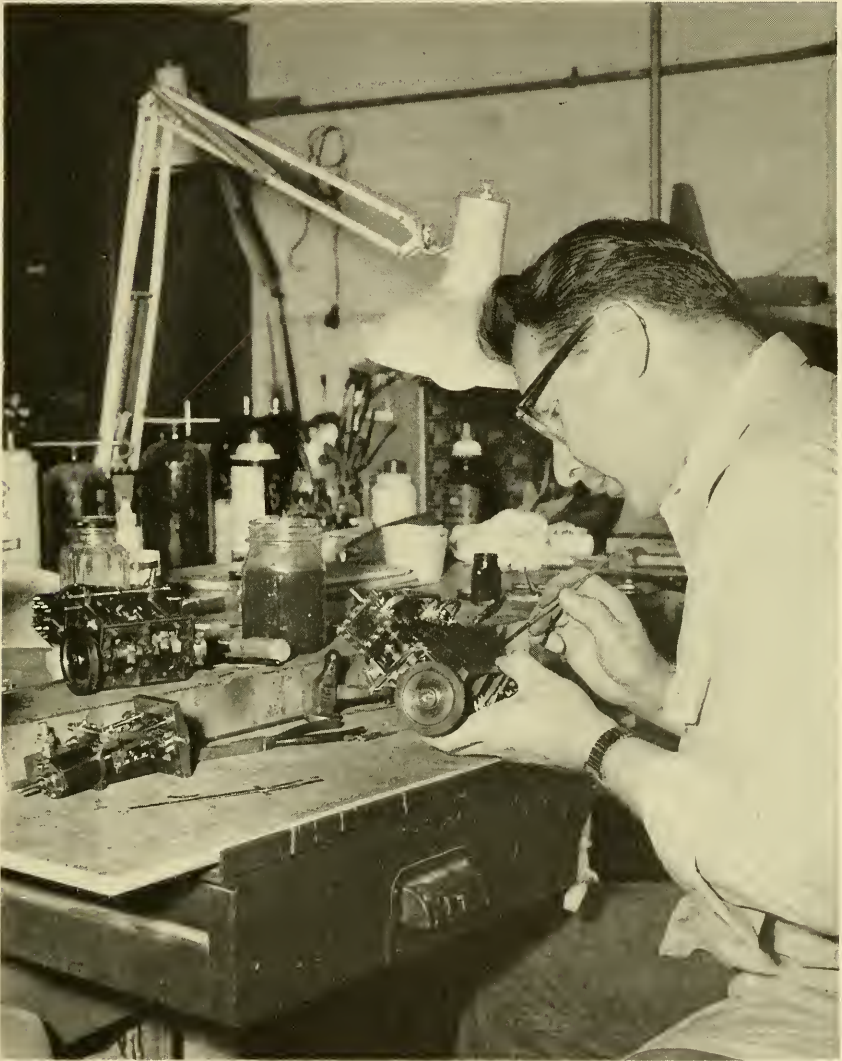
Physical sciences: Dr. Victor Lenzen, Univ. of California (the use of pendulum); Arthur H. Frazier, Madison, Wis. (current meters); Sister St. John Nepomucene, Trinity College, Washington, D.C. (history of chemistry); Dr. John Beer, Univ. of Delaware (history of industrial research); D. T. McAllister, China Lake Naval Ordnance Station, China Lake, Calif. (exchange of information on effects of A. A. Michelson); Richard W. Updike, Trenton, N.J. (research work on U.S. Lighthouse Establishment); Prof. Charles Susskind, Univ. of California (work of Popov in radiotelephony).

Mechanical and civil engineering: Richard S. Allen of Round Lake, N.Y. (history of bridge development); Dr. W. E. Knowles Middleton, National Research Council, Ottawa (history of the barometer); Dr. Emmanuel Poule, Ecole des Chartes in Paris (medieval astrolabes); Preston R. Bassett, Ridgefield, Conn.; Dottoressa Maria Luisa Bonelli, Director of the Istituto e Museo di Storia della Scienza, Florence, Italy; Prof. Derek J. de Solla Price, Yale Univ.; J. K. Schofield, Pratt & Whitney Corporation; Contessa Bianca Bartocci-Fontana of Assisi and Rome; Louise Darling, Bio-medical Librarian, Univ. of California at Los Angeles; Professor Rudolf E. Heymann, Israel Institute of Technology, Haifa; Dr. A. G. Drachmann, historian of technology, Lyngby, Denmark; Mrs. H. Ivan Rainwater, exhibits specialist, Bernice P. Bishop Museum; George L. Long, historian, Bell Telephone Company of Canada; Prof. Kalman J. DeJubasz, Department of Mechanical Engineering, Univ. of Pennsylvania; Frank M. Masters, civil engineer and bridge designer; Don W. Laverenz, Elgin Watch Company; Roberto A. Guatelli and Edwin A. Bowles, IBM Corporation; Jean-Pierre Savery, Watchmakers of Switzerland, Inc.; Col. Humphrey Quill, Museum of the Worshipful Company of Clockmakers, London; Haskell C. Titchell, Bulova Watch Company; William P. Roseman, Royal Greenwich Observatory, England; Geoffrey Buggins, Thwaites & Reed, London.

Transportation: Allan Villiers and George F. Campbell, Great Britain; Robert Bruce Inverarity, Adirondack Museum, Blue Mountain Lake, N.Y.; John R. Stevens, Halifax, Nova Scotia; Mrs. John P. Roberts, National Museum of Transport, St. Louis, Mo.; Dr. Lionel Casson, New York Univ.; Ernest Rolland,

Montreal; Lt. Carlos Etayo, Spanish Navy; William Middleton, Norfolk, Va.; Dr. E. Tejera-Paris, Ambassador of Venezuela; John Heath, Seattle, Wash. (measurements of kayaks); Francis Thompson, Aberdeen Proving Ground (locomotive boiler construction).

Medical sciences: Sa'd Jum'a, Ambassador of Jordan; delegates to the 69th annual meeting, Association of Military Surgeons of the United States.



Marine steam engine model being prepared by modelmaker Donald W. Holst, for the hall of heavy machinery in the Museum of History and Technology.

Arts and Manufactures

Manufactures and heavy industries.—With the exception of a brief period spent on study of an early brass-manufacturing plant, acting curator P. W. Bishop was totally occupied throughout the year in documenting new items collected and in locating exhibit materials for use in the halls of nuclear energy and petroleum in the Museum of History and Technology. For the exhibits research Dr. Bishop visited the American Petroleum Institute in Tulsa, Okla., the Brookhaven National Laboratory, the Los Alamos Scientific Laboratory, New York University, the Research Laboratories of General Motors Corporation in Detroit, and the research facilities of General Dynamics Corporation.

Agriculture and forest products.—The conclusions of associate curator Edward C. Kendall's paper on John Deere's steel plow have been substantiated by a study of the microstructure of the implement: Dr. George Ellinger of the metallurgical section of the National Bureau of Standards has confirmed that the moldboard was of wrought-iron and that the share is of cast steel.

Museum technician John Wingo has compiled information and dates on the development of the harvesting combine: these will be prepared for public distribution in the form of a mimeographed leaflet. The division plans to make available similar leaflets on the development of other agricultural machines in response to continuous requests for such information by the general public.

Textiles.—The staff of the division has prepared a lecture series of slides which will be available on loan through the Smithsonian Museum Service for use by educational organizations. Thirty-six needlepoint and bobbin laces and lacelike fabrics from the national collections are featured, together with illustrations of laces stitches and lace-making tools.

Curator Grace Rogers Cooper completed an account for subsequent publication in *Museum News* of the old Watkins Woolen Mill and the work of the few civic-minded individuals who set out to preserve it. Mrs. Cooper also continued her work as textile advisor for the *Encyclopaedia Britannica*, in which capacity she reviewed a number of technical articles, including one on manufacture of silk and another on dyes and dyeing; she also completed an article on Moire, which will be published in a forthcoming edition. She has completed and submitted for publication by the National Museum a manuscript, which includes more than one hundred photographs, on the history of the development of a practical sewing machine. Mrs. Cooper also continued her research on other textile machines which is expected to result in a major publication on the subject. During a 5-weeks' study

trip in Western Europe at the end of the year, she examined museum collections in several countries but most of the time was devoted to intensive studies of 18th- and 19th-century printed fabrics of France and England.

Museum technician Doris Bowman completed the identification of a collection of laces and embroideries of the 16th through the 20th centuries, submitted by the Baltimore Museum of Art. Miss Bowman also examined a number of items of needlework house furnishings to determine their possible suitability for use in Dumbarton House. She spent several days at the Boston Museum of Fine Arts, the Art Institute at Chicago, and at the Hispanic Society in New York City to study their collections of needlework and lace.

Ceramics and glass.—Curator Paul V. Gardner has continued his research for a study of the life of Frederick Carder, founder of the Steuben Glass Works. Mr. Gardner is also preparing an illustrated catalog, with about 250 illustrations and ten pages of text, of the items in the unusually well-received temporary exhibit, "Glass from Private American Collections and the Smithsonian Institution." In addition to these research activities, Mr. Gardner has also spent considerable time in the planning and production of the ceramic and glass exhibits for the new Museum of History and Technology.

Assistant curator J. Jefferson Miller II has made progress in preparation of a checklist of new views and forms of transfer-decorated Staffordshire ware for the American market. He is also preparing an illustrated description of transfer-decorated English earthenware for the American market in the Larsen and McCauley collections, and he is making a similar study of Chinese export porcelain for sale in America.

Museum technician Michael C. Gast has continued his preparation of a graphic index to visual forms and a precise vocabulary for the description of ceramics and glass objets d'art.

Graphic arts.—Curator Jacob Kainen conducted an intensive search in Europe for materials for an exhibition on typography, and he continued his research on the life and work of the Dutch engraver Hendrick Goltzius (1558–1617). He was able to obtain typographical material from a commercial firm in London and he consulted technicians and historians there and in Haarlem and Brussels. His research took him to museums in England and on the Continent. Mr. Kainen advanced his research of Goltzius during field trips to the Yale University Art Gallery, the Wadsworth Atheneum at Hartford, and the Art Institute of Chicago.

Associate curator Fuller O. Griffith studied 19th-century English color printing during field trips to the Wadsworth Atheneum and to the New York Historical Society, the Metropolitan Museum of

Art, and the New York Public Library. In connection with the preparation of exhibits for the new Museum of History and Technology, Mr. Griffith visited the Museum of Science and Industry in Chicago and the Ford Museum in Detroit, and he obtained old lithograph stones and other equipment from the Niagara Lithograph Company in Buffalo, N. Y.

Associate curator Eugene Ostroff, in charge of the section of photography, has continued his study of the photographic apparatus collection, identifying unmarked specimens and cross-indexing them according to design and manufacturer. At the invitation of the Brookhaven National Laboratory Mr. Ostroff served as a consultant to their photographic facility and in Panama, at the invitation of the U.S. Army, he served as a judge for a photographic competition. Mr. Ostroff by personal contact has enlisted the cooperation of leading newspaper photographers, editors, and news service organizations in documenting the newly created collection of the history of news photography. To obtain exhibit materials to illustrate techniques involved in high-speed and high-altitude photography in the new Museum of History and Technology, he visited various government research facilities and collected large numbers of photographs depicting the methods used for these investigations. From the Aberdeen Proving Ground he acquired a camera with a shutter for making exposures of exploding materials and a rocket nose-cone incorporating three cameras, recovered after a 70-mile space flight.

Research by visiting investigators.—Many outside research people used the collections of the department for obtaining data, among whom may be listed:

Kathryn Scott, textile conservator, New York City; Dr. Alan E. Kent and nine National Park Service trainees; Bruce Sinclair, Merrimack Valley Textile Museum; Ansley Ketchum, Greenville, S.C.; Mrs. Grace Marvin, Connecticut; Ruth Cox and Mildred Lanier, Colonial Williamsburg; Mr. and Mrs. James Sloan, Joanna, S.C.; Mrs. Lillian Carlisle, Burlington, Vt.; John Milley, Independence National Historical Park, Philadelphia; Professor Adeline Hoffman, Iowa State Univ.; Frank Hogg, Toronto, Canada; Gladys H. Fossum, Wisconsin; Bernice Chambers, Chambersburg, Pa.; Paul Otto-Kaiser, New Jersey; Mrs. Ethel Wight, Bay Village, Ohio; Dr. Bela Gaspar, Beverly Hills, Calif.; Masao Nagaoka, Tokyo, Vice President, Japanese Photographic Society and former president of Nippon Optical Company; Robert Dennis, collector of stereo material; Irving Megimis, photographic historian; Volkmar Wentzel, Richard Avedon, and Philippe Halsman, photographers; Dr. Louis Voet, Director of the Plantin-Moretus Museum, Antwerp; Madam de Buckley, Buenos Aires.

Civil History

Head curator Richard H. Howland continued the planning involved in remodeling the old Patent Office to house a National Por-

trait Gallery and the National Collection of Fine Arts; completion of the architects' working drawings in May brought to an end the planning stage. Dr. Howland served as consultant to the Department of State on two projects: he organized and directed a systematic inventory of Blair House, and advised on the refurnishing of the Department's official reception rooms. He was also extensively consulted in the development of the program for the recently acquired Barney House. He worked with Members of Congress and with representatives of various historic groups in the founding and organization of the new U.S. Capitol Historical Society.

In April, Dr. Howland engaged in research studies at the Archivo de Indias in Seville, Spain, concerning 18th- and 19th-century Spanish settlements in areas now included in the United States.

Associate curator Peter C. Welsh completed two manuscripts on the history of the tanning industry in the period before 1850; he also prepared a paper "United States Patents, 1790 to 1850: New Uses for Old Ideas." He continued his research on American hand tools and mechanical furniture, based on the records of the United States Patent Office, and on the wills and inventories of late 18th-century tanners in New Castle County, Del. Mr. Welsh has also continued his project of preparing a catalog of the Harry T. Peters "America on Stone" lithography collection. He acted as an advisor to Historic Annapolis, Inc., in connection with work on a complete index to historic source materials on file in the Maryland Hall of Records, and he served as a member of a panel for advising students at Goucher College on careers in the social sciences. For data concerning his research interest in Canadian history, he visited the National Museum of Canada at Ottawa, as well as museums and historical societies in the Province of Quebec.

Assistant curator Doris Esch Borthwick continued her research on navigational and surveying instruments used on the United States Exploring Expedition, 1838-1842; this study is based on correspondence records concerning the outfitting of the Expedition, and on the scientific instruments in the national collections which were used on the expedition.

Assistant curator Joy Finnegan continued her investigation of Major Jack Downing in political caricature; she has completed a checklist of Jack Downing prints in the Harry T. Peters "America on Stone" lithography collection.

Museum technician Frances M. Gordon continued her graduate study in history at American University.

Political history.—Curator Wilcomb Washburn continued his researches into various aspects of American history. At the autumn general meeting of the American Philosophical Society, Dr. Wash-

burn presented a commentary on the papers read before a symposium on contacts with American Indians, Polynesians, and Africans. He spoke on political campaigning in the mid-19th century at a joint meeting of the Speech Association of America and the American Studies Association, and he read a paper on Boston and the Indians, 1660-1720, at a conference in Detroit under the sponsorship of the Archives of American Art. He also contributed a paper on the responsibility of the museum in the area of adult education at the annual meeting of the American Association of Museums, at Williamsburg, Va., and lectured on historical research at meetings of several technical groups. As program chairman he organized the second annual meeting of the Society for the History of Discoveries, held at the John Carter Brown Library, Providence, R.I.

Associate curator Margaret B. Klaphthor continued her research on the furnishings of the White House and on the White House china, and she assisted the curatorial staff of the White House in obtaining information on that structure. Mrs. Klaphthor lectured on the dresses of the First Ladies of the White House and gave a talk to the Antiques Forum on the redecoration of the White House by Dolley Madison and Benjamin Latrobe.

Assistant Curator Keith E. Melder made considerable progress in his long-range investigation into the origins of the woman's rights movements in the United States between 1800 and 1850. He completed his manuscript, "Bryan the Campaigner," and began preparation of a study of the Republican presidential campaign of 1896. Mr. Melder has also begun a biographical sketch of Josephine Griffing, a 19th-century abolitionist and feminist who was influential in the formation of the Freedman's Bureau after the Civil War.

Assistant Curator Herbert R. Collins completed a manuscript on the torches used in political campaign parades with a brief account of the parades themselves; this study is based largely on the U.S. Patent Office records and trade catalogs in the Library of Congress. He also completed a study entitled "Red Cross Ambulances, 1898." Mr. Collins is continuing his research on political campaign objects and is preparing a study of vehicles used by American Presidents. He lectured on several occasions in the Metropolitan Washington area on "Campaigning for the Presidency in the Nineteenth Century."

Museum technicians Mrs. Helen R. Clark and Mrs. Alicia Riffle are making a study of the various types of stitches used in handsewing.

Cultural history.—Curator C. Malcolm Watkins has completed his portion of a collaborative paper with research associate Ivor Noël Hume on an 18th-century potter of Yorktown, Va. Much progress has been made, with the assistance of museum technician Mrs. Sigrid

Silk dress of about 1860 is being fitted by assistant curator Anne W. Murray on one of the mannikins for the new hall of American costume, which will show clothing and accessories of men, women, and children from the 17th century to the present.



Westfall Hull in assembling data for a publication of original source materials pertaining to colonial northern Virginia.

Associate curator Rodris Roth has completed her monograph on 18th-century floor coverings and is currently studying American furniture exhibited at the Philadelphia Centennial Exhibition of 1876.

As a byproduct of the latter investigation, Miss Roth presented at the Tenth Annual Winterthur Seminar on Museum Operation and Connoisseurship in April, a paper on the 19th-century revival of colonial decorative styles.

Assistant curator John N. Pearce, with archaeological aide Richard J. Muzzrole, participated in a 10-days' archaeological investigation in October of the site of John Frederick Amelung's New Bremen glass manufactory, the first major glassmaking enterprise in the American Republic, operated between 1785 and 1795 in Frederick County, Md. The excavations were undertaken with the collaboration of the Corning Museum of Glass, under the archaeological direction of research associate Ivor Noël Hume, assisted by Paul N. Perrot, Director of the Corning Museum, who served as administrative director for the project. The excavations, which were confined to one portion of the site, will be completed next year, but structures and artifacts already revealed indicate the ultimate results will contribute significantly to knowledge of 18th-century glassmaking in America, as well as of this important source of American glassmaking skills.

Assistant curator Cynthia Adams Hoover has continued her study of American musical instrument makers and musicians. In connection with the complete cataloging of the collection of musical instruments, Mrs. Hoover has continued to collect information about Alpheus Babcock, an early 19th-century American builder of the pianoforte. She has also begun a study of the slide trumpet with emphasis on 19th-century examples and their use in America. In March Mrs. Hoover presented a paper "The Reason for Historical Instruments" at the National Convention of the Music Teachers National Association which met in Chicago.

Research associate Ivor Noël Hume, in addition to collaborating in field studies and on a joint paper with Mr. Watkins, has brought to completion a report of his excavations at the Clay Bank Site, Gloucester County, Va., and he is proceeding with a report on his investigation of the site of a potter's kiln in James City County.

Philately and postal history.—Associate curator Francis J. McCall completed and published eight articles on recent United States stamps in which he included discussions of the rejected designs, as well as of the accepted ones. He served as one of three judges in the competition conducted by the Fish and Wildlife Service to determine the design of the Hunting Permit Stamp for 1964. Mr. McCall also gave talks to two philatelic organizations in New York City.

Assistant curator Carl H. Scheele is currently preparing an outline history of Colonial Posts in North America, a survey from the origin in 1639 to the establishment of an independent postal service by the

Continental Congress in 1775. Mr. Scheele has also made progress in his studies of the history of the U.S. Pneumatic Tube Postal Service, the Pony Express, and the effect of the lighting of the transcontinental airways on the schedules of mail delivery.

Museum specialist Theodore Ruhoff has undertaken research into the issuance of occupation stamps during World War II by the Allied Military Government. He is also continuing his compilation of color names and terms used in American and foreign catalogs in an attempt to provide equivalent terms in several languages for the colors of inks used in printing stamps.

Numismatics.—Curator Vladimir Clain-Stefanelli completed a paper on the history of the national numismatic collections, particularly during the nineteenth century up to 1860. He also continued his research on medallic portraits of James Smithson. At the 64th annual meeting of the Archaeological Institute of America, he presented a paper on the unpublished counter-stamped coins of Callatis, and he furnished historical data and photographs for a Denver educational television series on numismatics for the National Educational Television and Radio Center. The series will be released throughout the country in eight half-hour programs. He has also cooperated extensively with the U.S. Treasury Department's Office of Domestic Gold and Silver in determining the numismatic status of gold coins and medals.

Associate curator Elvira Clain-Stefanelli completed a select numismatic bibliography which includes approximately 5,000 book titles, many of them annotated, arranged by topics, with cross-references and an index of authors. Under the title "Russian Gold Coins," Mrs. Clain-Stefanelli published a paper on the output of gold and platinum coins in Russia since 1800. She also addressed a meeting in New York of the American Numismatic Association on the aesthetics of modern coinage.

The Honorable R. Henry Norweb and Mrs. Norweb were appointed Honorary Fellows of the Smithsonian Institution for their important contributions to the national numismatic collections.

Research by visiting investigators.—In addition to many distinguished visitors, the reference collections were used by numerous scholars for research purposes.

Political History: Helen McTeague, Tea Institute, New York; Miss Natalie Rothstein, Assistant Keeper, Department of Textiles, Victoria and Albert Museum, London; Miss Isabelle Shelton, Washington, D.C., and Miss Patricia Wynne of Georgetown University, Washington, D.C.

Cultural History: Rudolf and Katharine Baumgartner, Lucerne Conservatory, Zurich, Switzerland; Howard M. Brown, Univ. of Chicago; Lucas F. Burchardt,

Swiss Embassy; Ruth Y. Cox, and Mildred Lanier, Colonial Williamsburg, Inc., Virginia; Ady Crespo, Mexico City; Herbert C. Darbee, Old Sturbridge Village, Mass.; Nancy Dunbar, Redpath Museum, McGill Univ., Montreal; John H. Germer, San Jose, Calif.; W. Haberay, Rheinisches Landesmuseum, Bonn, Germany; Frederick B. Hanson and John C. Milley, Independence National Historical Park, Philadelphia, Pa.; Brian Hitch, British Foreign Office, London; Doreen Manson, Liverpool, England; Paul Perrot, Corning Museum of Glass; Carlos Vega, Buenos Aires; Roland Wiggins, Franklin Institute, Philadelphia, Pa.; Robert Wildhaber, Schweizerisches Museum für Volkskunde, Basel, Switzerland.

Philately: Leroy W. Christenson, Cleveland Heights, Ohio; Margaret Cooper, Terre Haute, Ind.; J. F. Coury of North Miami Beach, Fla.; Frederick Longford, Pasadena, Calif.; Robert Leard of Arcadia, Calif.; R. C. McKelvey of Fort Myers, Fla.; Mrs. Sara Meerkamp, New York; Morris Newberg, Brooklyn, N.Y.; Edith Rolph of Philadelphia, Pa.

Numismatics: Dr. Leo Mildenberg, Zürich; Yoshinori Ogawa, Tokyo; Alfred E. H. Petrie, Curator of the Canadian Numismatic Collections, Ottawa; Jacques Schulman, Amsterdam, Netherlands; F. dos Santos Trigueiros, Museo do Banco do Brasil, Rio de Janeiro.

Armed Forces History

Head curator Mendel L. Peterson completed a preliminary report on his study of markings and decorations on muzzle-loading cannon; further research in Europe will be required to complete the investigation. Mr. Peterson also initiated and completed a vastly expanded edition of "History Under the Sea, a Handbook for Underwater Exploration."

Military history.—Curator Edgar M. Howell and museum specialist Donald E. Kloster continued work on a descriptive catalog of United States Army uniforms in the national collections. Mr. Howell completed a preliminary draft of a paper on the work of "special artist" Theodore R. Davis during the Indian Wars, as well as a descriptive catalog of the World War I paintings of Harvey Dunn. Mr. Kloster brought to completion a 2-part article on the regulation uniforms of the U.S. Army in 1872.

Associate curator Craddock R. Goins, Jr., completed a monograph on the development by John H. Hall of the breech-loading rifle. Mr. Goins also made significant progress on a definitive catalog of the arms collection.

Naval history.—Curator Philip K. Lundeberg made substantial progress in his study of problems relating to the construction of United States naval vessels; significant data have been brought together by research in the U.S. National Archives, the Peabody Museum at Salem, Mass., and in the naval archives of Great Britain, France, Denmark, Sweden, Norway, and Austria. Extensive research was



Rifle being installed by exhibits specialist Frank Gambino in an exhibit for the hall of ordnance, Museum of History and Technology.

involved in preparing the models of the frigate *Constitution* and the sloop-of-war *Hartford*, both of which are being added to the national collections. Dr. Lundeborg also continued his study of German submarine strategy, completing for publication a paper on the German naval critique of the U-boat campaign against Allied merchant shipping in World War I; the paper was also presented at the annual meeting of the Pacific Coast branch of the American Historical Association which met in August.

Associate curator Melvin H. Jackson presented a paper at the annual meeting of the Society for the History of American Discoveries, which will be published under the title "The Labrador Landfall of John Cabot: The 1497 Voyage Reconsidered."

Museum technician Alan B. Albright prepared a manuscript on the preservation of organic materials recovered from underwater sites.

Research by visiting investigators.—Assistance was provided to other government agencies and private agencies throughout the year. Among those so assisted were the National Institute of Heraldry, Office of the Chief of Military History, Historical Division and Technical Intelligence Branch Office, Chief of Ordnance, Department of

the Army; Prints Division and General Reference Service, Library of Congress; Army and Air Force Branch, National Archives; Division of Naval History, Office of the Chief of Naval Operations; Naval Historical Exhibits Center; and National Geographic Society.

Publications

The scientific publications of the United States National Museum continued under the editorship of John S. Lea.

In addition to the annual report, the Museum issued publications based on research in the national collections. Of these, 2 whole volumes and 2 papers of an additional volume were in the Bulletin series and 13 publications were in the Proceedings series.

At the close of the year, 17 Proceedings papers, 5 Contributions from the National Herbarium, 6 Contributions from the Museum of History and Technology, and the following bulletins were in press:

- 82, vol. 1, part 5. A monograph of the existing crinoids, the Comatulids, suborders Oligophreata and Macrophreata, by Austin Hobart Clark and Ailsa McGown Clark.
- 226. Checklist of the birds of Thailand, by Herbert G. Deignan.
- 227, part 1. Marine Polychaete worms of the New England region: 1, Families Aphroditidae through Trochochaetidae, by Marlan H. Pettibone.
- 230. The bark canoes and skin boats of North America, by Howard I. Chapelle and Edwin Tappan Adney.
- 231. Early American mathematical instruments and their makers, by Silvio A. Bedini.
- 234. Cephalopods of the Philippine Islands, by Gilbert L. Voss.
- 236. Free-living copepoda from Ifaluk Atoll in the Caroline Islands, with notes on related species, by W. Vervoort.
- 237, part 1. Life histories of North American cardinals, grosbeaks, buntings, finches, sparrows, towhees, and allies, by Arthur Cleveland Bent, Oliver L. Austin, Wendell Taber, and collaborators.
- 238. Engineering in early America: The experiences of George Escol Sellers, edited by Eugene S. Ferguson.
- 239. The Recent Mollusca of Augustus Addison Gould, by Richard I. Johnson.
- 242. Tanning in the United States to 1850: A brief history, by Peter C. Welsh.
- 243. Lacebugs of the world: Catalog of the family Tingidae (Hemiptera), by C. J. Drake and Florence Ruhoff.
- 244. Bagworm moths of the Western Hemisphere (Lepidoptera, Psychidae), by Donald R. Davis.

Publications reported by the staff, including honorary members, totaled 178. These, listed on pages 107 to 115, were distributed as follows:

<i>Department</i>	<i>Publi- cations</i>	<i>Department</i>	<i>Publi- cations</i>
Anthropology	25	Civil History	19
Zoology	67	Arts and Manufactures	3
Botany	30	Armed Forces History	2
Geology	15		—
Science and Technology	17	Total	178

Publications of the United States National Museum

July 1962 through June 1963

REPORT

The United States National Museum annual report for the year ended June 30, 1962. Pp. viii+195, illustr., January 24, 1963.

BULLETINS

- 100, volume 14, parts 1-4. Title page, table of contents, and index. Pp. vii+443-461, May 16, 1963.
228. Contributions from the Museum of History and Technology: Papers 19-30, by members of the staff and others.
- Paper 29. The development of electrical technology in the 19th century: 2. The telegraph and the telephone, by W. James King. Pp. 273-332, 80 figs., September 17, 1962.
- Paper 30. The development of electrical technology in the 19th century: 3. The early arc light and generator, by W. James King. Pp. 333-407, 92 figs., September 17, 1962.
233. Host relations of the parasitic cowbirds, by Herbert Friedmann. Pp. ix+276, June 13, 1963.
235. American military insignia, 1800-1851, by J. Duncan Campbell and Edgar M. Howell. Pp. xv+124, 277 figs., June 27, 1963.

PROCEEDINGS

FROM VOLUME 113

- Title page, table of contents, and index. Pp. i-v+637-660, January 9, 1963.
- No. 3459. Plectrotaxy as a systematic criterion in lithobiomorphic centipedes (Chilopoda: Lithobiomorpha), by Ralph E. Crabill, Jr. Pp. 399-412, 1 fig., July 12, 1962.
- No. 3461. Synopsis of the Neotropical cockroach genus *Macrophyllodromia* (Orthoptera: Blattoidea, Epilampridae), by Isolda Rocha e Silva Albuquerque. Pp. 421-428, 14 figs., August 29, 1962.
- No. 3465. The heleomyzid flies of America north of Mexico (Diptera: Heleomyzidae), by Gordon D. Gill. Pp. 495-603, 96 figs., August 30, 1962.
- No. 3466. The non-brachyuran decapod crustaceans of Clipperton Island, by Fenner A. Chace, Jr. Pp. 605-635, 7 figs., August 29, 1962.

FROM VOLUME 114

- No. 3467. Scarab beetles of the genus *Onthophagus* Latreille north of Mexico (Coleoptera: Scarabaeidae), by Henry F. Howden and Oscar L. Cartwright. Pp. 1-135, 11 figs., 9 pls., January 9, 1963.
- No. 3468. New species of spider wasps, genus *Auplopus*, from the Americas south of the United States (Hymenoptera: Psammocharidae), by R. R. Dreisbach. Pp. 137-211, 13 pls., March 19, 1963.
- No. 3469. Some North American moths of the genus *Acleris* (Lepidoptera: Tortricidae), by Nicholas S. Obraztsov. Pp. 213-270, 7 figs., 18 pls., May 7, 1963.
- No. 3470. A revision of the North American annelid worms of the genus *Cambarincola* (Oligochaeta: Branchiobdellidae), by Richard L. Hoffman. Pp. 271-371, 79 figs., March 6, 1963.

- No. 3471. Geographic variation in the thrush *Hylocichla Ustulata*, by Gorman M. Bond. Pp. 373-387, 1 fig., March 6, 1963.
- No. 3472. Review of the hawkfishes (family Cirrhitidae), by John E. Randall. Pp. 389-451, 16 pls., May 28, 1963.
- No. 3473. Studies of Neotropical caddis flies, I: Rhyacophilidae and Glossosomatidae (Trichoptera), by Oliver S. Flint, Jr. Pp. 453-478, 8 figs., April 16, 1963.
- No. 3474. Weevils of the genus *Maemactes*, by David G. Kissinger. Pp. 479-486, 1 fig., March 19, 1963.

Publications by Members of the Staff
of the
United States National Museum

July 1962 through June 1963

- Angel, J. Lawrence. Physical anthropology and medicine. Journ. Nat. Med. Assoc., vol. 55, No. 2, pp. 107-116, March 1963.
- Bedini, Silvio A. A compass card by Paul Revere (?). Yale Library Gazette, vol. 37, No. 1, pp. 36-38, 1 fig., July 1962.
- . The Pocahontas watch. Bull. Nat. Assoc. Watch and Clock Collectors, vol. 10, No. 5, pp. 283-289, 6 figs., August 1962.
- . On making telescope tubes in the 17th century. Physis, vol. 4, fasc. 2, pp. 110-116, 3 figs., 1962.
- . XIVth and XVth century public clocks in the Papal Marches. Physis, vol. 4, fasc. 3, pp. 209-218, 1 fig., 1962.
- . La pendule à une seule roue, et d'Autres à deux et à trois roues. La Suisse Horlogere (Internat. ed.), vol. 77, No. 4, pp. 23-34, 11 figs., December 1962; vol. 78, No. 1, pp. 31-40, 15 figs., April 1963.
- . La Clessidra cilindrica a scompartimenti. Clessidra, Anno XIX No. 5, pp. 15-19, 2 illus. May 1963. Part 1 of 3.
- Bond, Gorman M. Geographic variation in the thrush *Hylocichla ustulata*. Proc. U.S. Nat. Mus., vol. 114, No. 3471, 1 fig., pp. 373-387, March 1963.
- Campbell, J. Duncan and Howell, Edgar M. American military insignia, 1800-1851. U.S. Nat. Mus. Bull. 235, 124 pp., 277 figs., 1963.
- Campbell, John M. (Editor). Prehistoric cultural relationships between Arctic and Temperate Zones of North America. Tech. Papers No. 11, Arctic Institute of America, 181 pp., 1962.
- . Cultural succession at Anaktuvuk Pass, Arctic Alaska. In Prehistoric cultural relationships between Arctic and Temperate Zones of North America. Tech. Papers No. 11, Arctic Institute of America, pp. 39-54, 1962.
- . Current research—Arctic. Amer. Antiq., vol. 28, No. 4, pp. 576-581, April 1963.
- Cartwright, Oscar L. Two new species of *Megasoma* from the United States and Mexico (Coleoptera: Scarabaeidae). Coleopterists' Bull., vol. 17, pp. 25-29, 1 pl., March 1963.
- . Two new beetles of the genus *Aphotaenius* (Coleoptera: Scarabaeidae). Coleopterists' Bull., vol. 17 pp. 49-51, 5 figs., June 1963.
- . (See Howden, Henry F.)

- Chace, Fenner A., Jr. The non-brachyuran decapod crustaceans of Cliperton Island. Proc. U.S. Nat. Mus., vol. 113, No. 3466, pp. 605-635, 7 figs., 1962.
- Chapelle, Howard I. A technical adviser in Turkey. Fishing News International, vol. 2, No. 1, pp. 76-78, January-March 1963.
- Cifelli, Richard. The morphology and structure of *Ammonia beccarii* (Linné). Contrib. Cushman Found. Foram. Res., vol. 12, part 4, pp. 119-126, 1962.
- . Some dynamic aspects of the distribution of planktonic Foraminifera in the western North Atlantic. Journ. Marine Res., vol. 20, No. 3, pp. 201-213, 1962.
- Clain-Stefanelli, Elvira. Russian gold coins. London: Spink and Son, Ltd., 39 pp., illustr., 1963.
- Clain-Stefanelli, Vladimir. Unpublished counterstamped coins of Callatis. Amer. Journ. Arch., vol. 67, pp. 209-210, 1963.
- Clark, A. M. *Asterias nodoso* Linnaeus, 1758 (Asteroidea); selection of a lectotype and addition to the Official List. Bull. Zool. Nomencl., vol. 19, No. 3, pp. 174-176, 1962.
- . Asteroidea. Rep. B.A.N.Z. Ant. Res. Exped. 1929-1931, ser. B., vol. 9, 104 pp., 5 pls., 18 figs., August 1962.
- . Starfishes and their relations. British Museum (Natural History), London, 119 pp., 16 pls., 30 figs., 1962.
- . A note on *Patiria ocellifera* Gray, 1847. Doriana, Genoa, vol. 3, No. 127, 99 pp., 4 pls., 1 fig., February 1963.
- and Wright, C. W. A new genus and species of recent starfishes belonging to the aberrant family Sphaerasteridae, with notes on the possible origin and affinities of the family. Ann. Mag. Nat. Hist., ser. 13, vol. 5, pp. 243-251, 4 figs., November 1962.
- Clarke, J. F. Gates. A new species of *Trichotaphe* from Mexico and Hawaii (Lepidoptera: Gelechiidae). Proc. Hawaiian Ent. Soc., vol. 18, No. 1, pp. 123-124, 2 figs., August 1962.
- . Catalogue of the type specimens of Microlepidoptera in the British Museum (Natural History) described by Edward Meyrick, London, vol. 4, pp. 1-521, 252 pls., March 1963.
- Collette, Bruce B., and Gibbs, Robert H., Jr. Preliminary guide to the mackerel- and tuna-like fishes of the Indian Ocean (Scombridae). Smithsonian Institution, Washington, D.C., pp. v+48, 10 pls., 1963.
- . A preliminary review of the fishes of the family Scombridae. Proc. World Sci. Meeting Biol. Tunas Related Species. F. A. O. Fish. Rep., vol. 1, No. 6, pp. 23-32, 1963.
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- Cooper, G. Arthur, and Grant, Richard E. *Torynechus*; new name for Permian brachiopod *Uncinuloides* King. Journ. Paleont., vol. 36, No. 5, p. 1128, 1962.
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- and **Froeschner, Richard C.** A new myrmecophilous lacebug from Panama (Hemiptera: Tingidae). *Great Basin Naturalist*, vol. 22, Nos. 1-3, pp. 8-11, 1 pl., October 1962.
- and **Ruhoff, Florence A.** Some Tingidae (Hemiptera) in the South Australian Museum. *Records of the South Australian Museum*, vol. 14, No. 2, pp. 249, 252, 1 pl., July 1962.
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- Synonymic notes and descriptions of new Tingidae (Hemiptera). *Studia Entomologica [Brazil]*, vol. 5, Nos. 1-4, pp. 489-506, 3 figs., October 1962.
- The Tingidae of Amboina, Larat, and Kai Islands (Hemiptera). *Pacific Insects*, vol. 4, No. 4, pp. 729-736, 4 figs., December 1962.
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Adler, Kraig K., Columbus, Ohio: 7 salamanders, holotype and paratopotypes, from North Carolina (242066).

Adler, Sidney, Washington, D.C.: 2 marble fireplaces and section of stairway (246314).

Adolfo M., Brother, Cochabamba, Bolivia: 31 phanerogams, 15 grasses, 12 ferns, and 3 cryptogams from Bolivia (244017, 244673). (See also Colegio La Salle)

Agence Philatélique (See Burundi, Government of)

Agence Philatelique Haitienne (See Haiti, Government of)

Agostini, Carlos (See Venezuela, Republic of)

Agricultural and Mechanical College of Texas, College Station, Tex.: (Through R. P. Cuzon du Rest) 77 copepods (234431).

Agriculture, U.S. Department of, Washington, D.C.: 158 phanerogams from Mexico collected by Dr. Elbert L. Little, Jr. (247146); (through W. L. Seal) 9 fruit flies from South Africa (245572). *Agricultural Research Service:* 17 land and fresh-water snails from Ceylon, Honduras, and Mexico (236862); 42 grasses and 496 phanerogams from worldwide localities (243320, 243322, 243661, 243662, 244334, 244462, 244854, 245073, 245943, 246295, 247343); (through Dr. Rex W. Allen) 10 fresh-water snails from Colorado and New

Mexico (245661); (through Dr. William H. Anderson) 79 land and fresh-water snails from worldwide localities (236009, 236319, 236474, 237067); 11 land and fresh-water mollusks from worldwide localities and 3 isopods (236700, 237993); 1,062,757 miscellaneous insects from worldwide localities (246782, 247940, 247941); (through B. A. App) 62 miscellaneous insects from Montana (247757); (through Dr. Philip B. Dowden) 80 fresh-water snails from Peru (235734); (through Dr. Phyllis T. Johnson) 49 lice from Thailand (245092); (through Dr. Frederick G. Meyer) 5 phanerogams (242253); (through H. Ivan Rainwater) 24 fruit flies from Hawaii (243861); (through Dr. G. G. Rohwer) 15 miscellaneous insects from South America (245578). *Forest Service*: 369 phanerogams, 28 grasses, 6 ferns, and 170 plants from the U.S. (243321, 247150, 247342); (through Doris Hayes) 28 phanerogams from southwestern U.S. (242693); (through Dr. Frederick J. Hermann) 16 grasses from Arizona (246857); (through Dr. R. J. Kowal) 5 terrestrial slugs from Mount Mitchell, N.C. (240448). *Soil Conservation Service*: 3 grasses from Nebraska collected by Gurney E. Burrows (245192).

Aiken, Maj. Andrea M., Ret., Whitehall, N.Y.: 36 WAC uniforms and accessories (247022).

Ainsworth, Joe H., Ocean Springs, Miss.: 38 fresh-water snails from Morrison Springs, Fla. (243176).

Ajax Magnethermic Corp., Trenton, N.J.: (Through R. E. Danch) original Ajax-Wyatt electric induction furnace (244776).

Ajax Manufacturing Co., Cleveland, Ohio: (Through Wayne N. Sacchini) Ajax forging machine and board drop hammer (247573).

Alain, Brother, West New York, N.J.: 19 phanerogams and 3 ferns (247148)

Alaska Agricultural Experiment Station, Palmer, Alaska: 6 grasses from Alaska (245010).

Alaska University Museum, College Alaska: *The Herbarium*: 222 phanero-

gams, 63 grasses, 2 ferns, and 21 cryptogams of Alaska (242470).

Albertson, John F., Arlington, Va.: U.S. Army Airborne Infantry soldier's jump suit (243702).

Alexander, Dr. Charles P., Amherst, Mass.: 5,034 miscellaneous insects from Newfoundland (242493, 244089).

Alexander, Dr. Maurice M. (See New York State University College of Forestry).

Alexander, Peter F., Myersville, Md.: 9 scorpions and mole crickets from Africa (247937).

Alexander, William L., Tucson, Ariz.: 5 franking cards, 511 Western Union Telegraph stamp booklets, and 189 Telecommunications Conference booklets (245879).

Alfors, John T. (See California, State of)

Alger, Louisa R., Cambridge, Mass.: Officer's sword belt and plate and U.S. shoulder knots and aiguillette, ca. 1851-72 (117131).

Alicata, Dr. J. E., Honolulu, Hawaii: 5 land mollusks from Fiji and New Caledonia (241355).

Allan, Greever (See Post Office Department)

Allan Hancock Foundation, Los Angeles, Calif.: (Through Dr. J. Laurens Barnard) 3,160 marine invertebrates and 218 amphipods, including 102 paratypes (219775, 239467).

Allen, Mrs. DuVall, Annapolis, Md.: Jeweler's hand vise (244496).

Allen, Dr. H. W., Moorestown, N.J.: 17 wasps, including types, from North America (245842, 246131).

Allen, Paul H., Tela, Honduras: 48 wood specimens from Costa Rica (244720).

Allen, Dr. Rex W. (See Agriculture, U.S. Department of)

Allen County Historical Society (See Nickel Plate Road)

Allred, Dr. Donald M. (See Atomic Energy Commission and Brigham Young University)

Almer, Mrs. Rena E., Washington, D.C.: Tatting shuttle and 3 rug hooks (246322).

Almodovar, Dr. Luis R. (See Puerto Rico, University of)

Alms, J. J. (See Chicago, Burlington & Quincy Railroad Co.)

Al Pflueger, Inc., North Miami, Fla.: Model of Dorothea Lincoln Dean's bluefin tuna (247053).

Alvarez del Villar, Dr. José (See Instituto Politécnico Nacional)

Amaldi, Prof. Edoardo (See Segrè, Prof. Emilio)

Amelinckx, Dr. S., Brussels, Belgium: Nadorite and 2 dewalquites from Algeria and Belgium (245429, exchange). (See also Centre d'Étude de l'Énergie Nucléaire)

American Cyanamid Co., Bound Brook, N.J.: (Through L. J. Manara) 2 bottles of chemical dyes (243035).

American Gem Society, Los Angeles, Calif.: Kunzite from San Diego Co., Calif. (247846).

American Meter Co., Erie, Pa.: (Through Douglas R. Kramer) American 2-light gas meter (248004).

American Museum of Natural History, New York, N.Y.: 2 bird skins and 3 birds (243449, 243684, exchanges); (through Dr. Charles M. Bogert) 9 frogs, including 2 paratypes, from Colombia (222285, exchange); (through Dr. Brian Mason) specimen of Concho meteorite from Texas (245872, exchange); (through William E. Old, Jr.) 28 marine mollusks from Ghana, Israel, Oman, and New Zealand (247331, exchange); (through Colin M. Turnbull) 12 ethnological items from the African Congo (245190, exchange).

American Oil Company, Chicago, Ill.: (Through J. C. Ducommun) photographs and other memorabilia of the Burton-Humphreys oil cracking process (247630).

American Topical Association, Milwaukee, Wis.: (Through Jerome Husak) first-day cover bearing the U.S. 1962 Christmas stamp (247489).

American University, Washington, D.C.: 43 political campaign items, 1896 (244894).

Amos, Dr. Arturo J. (See Universidad de Buenos Aires)

Anaconda American Brass Co., Waterbury, Conn.: 1913 spectrograph (248008).

Andersen, Dr. Harold V. (See Louisiana State University)

Anderson, H. G., Burlington, Vt.: Pewter-framed colored lithographs of Millard Fillmore and Zachary Taylor, and a tin plaque bearing the wording "Hoover for President" (243469).

Anderson, Dr. L. C. (See Michigan, University of)

Anderson, Dr. R. H. (See Australia, Government of)

Anderson, Dr. William H. (See Agriculture, U.S. Department of)

Anderson, William W. (See Interior, U.S. Department of the)

Andres, L. A., Rome, Italy: 275 miscellaneous insects from Greece, Iran, and Turkey (248046).

Ankers, Mrs. R. E. (See Palmer, Elden)

Annecke, Dr. D. P., Pretoria, South Africa: 100 chalcid flies, including paratypes, from South Africa and South America (243572, 244634).

Anonymous: Diamond and ruby bracelet (239147); 6 tektites from the Philippines (242953); pair of silver asparagus tongs, 20th century (247785).

Anso, Binghamton, N.Y.: (Through Philip M. Mikoda) 3 cameras (244554).

Antiques on the Hill, Washington, D.C.: (Through Mr. and Mrs. J. Gilbert Sangster) Gaumont stereo camera, single lens reflex camera, Kodak #1 box camera, 2 Heidoscop magazines for stereo camera, and 2 Zentmayer lenses for stereo camera (242983).

App, B. A. (See Agriculture, U.S. Department of)

Arata, W. H., Jr. (See Institute of Aerospace Sciences)

Archbold Biological Station, Lake Placid, Fla.: (Through Dr. Leonard J. Brass) 2 lichens from Florida (243881).

Architect of the Capitol, Washington, D.C.: (Through J. George Stewart) Senate subway car and portion of overhead rail (219765); Westinghouse switch panel and voltmeter, and

a marble panel with wattmeter, ca. 1910 (247989).

Argenbright, George, Washington, D.C.: Hairworm from Washington, D.C. (244826).

Argus, Dr. George W. (See Saskatchewan, University of)

Aristeguieta, Dr. Leandro (See Ministerio de Agricultura y Cría)

Arizona, University of, Tucson, Ariz.: (Through Dr. Floyd G. Werner) 374 miscellaneous insects from Asia (245066).

Arizona State College, Flagstaff, Ariz.: (Through Dr. Chester F. Deaver) 54 phanerogams from Arizona (242725).

Arkansas, University of, Fayetteville, Ark.: (Through Dr. Kirk Strawn) 19 fresh-water fishes from Arkansas (242698, exchange).

Armstrong, Geri Ann (See National Aeronautics and Space Administration)

Arnaud, Dr. Paul H., Jr., New York, N.Y.: 4 tachinid flies, including paratypes of 2 new species, from Brazil and California (243454, 243578); 4 flies from Brazil and California, including a paratype (243859, 244553, 244739, exchanges). (See also California Academy of Sciences.)

Arnoldo, Brother M., Bonaire, Netherlands Antilles: 53 phanerogams and a fern from Bonaire (244555).

Arnow, Ted, Santurce, Puerto Rico: 19 gorgonians and a hydrocoral (233887).

Arterburn, P. D. (See Eastman Oil Well Survey Co.)

Artrip, Zida, Virginia Beach, Va.: 2 shells from the Miocene, Yorktown formation at Kempville, Va. (242413).

Ashcraft, SFC Paul, San Francisco, Calif.: 4 pots from tombs in Iran (245304).

Aslakson, Capt. Carl I. (Ret.), Bethesda, Md.: 12 marine mollusks from Australia, the Canary Islands, and Saudi Arabia (242595).

Atkinson, Clint (See Interior, U.S. Department of the)

Atlantic Research Corp., Alexandria, Va.: (Through Floyd Swanson) Arcas

meteorological sounding system (246537).

Atlantic Screw Co., Hartford, Conn.: (Through Roy Johnson) "Cook" header and a David Tilton wood screw threading machine (243356).

Atomic Energy Commission, Washington, D.C.: (Through Dr. Donald M. Allred) 108 miscellaneous insects from Nevada (246868, 247759); (through Herman M. Roth) SM-1 Fuel fabrication display (246491); (through J. C. Westbrook) Piper-cub airplane and accompanying detection instruments (243274). *Nevada Test Site*: (Through Dr. Donald M. Allred) 100 beetles from Nevada (244748).

Aubreville, Prof. André (See Museum National d'Histoire Naturelle)

Auchincloss, Hugh, McLean, Va.: 5 pieces of Roman glass (247363).

Australia, Government of: *Botanic Museum and Herbarium*: 2 phanerogams and 99 grasses from Australia (243875, exchange). *Commonwealth Scientific and Industrial Research Organization*, Canberra: 639 phanerogams, 96 grasses, 28 ferns, and 18 cryptogams from Australia (242696, 243667, 243669, 246109, exchanges). *Queensland Institute of Medical Research, The*: (Through Dr. Richard Domrow) paratype of an Australian mite (243319). *Royal Botanic Gardens and National Herbarium*: (Through Dr. R. H. Anderson) 5 ferns from New Caledonia (239167, exchange).

Avedon, Richard, New York, N.Y.: 404 photographs (246041, 246871).

Avery, Mrs. Etta Halsted Echols (deceased): (Through Elsie Dinsmore Echols) 2 paisley shawls, 19th century (243359).

Awasthi, Dr. D. D. (See Colorado, University of)

Axelrod, Dr. Herbert R., Jersey City, N.J.: Fish head, a snake, 4 wild pigs, turtle and 6 eggs, a rat, 2 leeches, 28 crustaceans, and 3,974 fishes from worldwide localities (241950, 242203, 245347, 246035, 246739, 247248). (See also Bell, Gary L.; Schwartz, H. W.; Sullivan, Robert.)

Axtell, Dr. R. C., Raleigh, N.C.: 18 slides of mites from the U.S. (243697).

Ayensu, Edward S., Washington, D.C.: 13 wood specimens and 9 phanerogams (247459).

Ayers, John E., Sarasota, Fla.: 24 corals from the Tertiary of Florida (243222).

Ayling, G. A. (See Pan American Petroleum Corp.)

Azerbaijdan Institute of Petroleum Chemistry, Baku, Azerbaijdan, U.S.S.R.: (Through Dr. A. B. Mamedov) 21 invertebrate fossils from the Devonian of Russia (242087, exchange).

Azzoni, Janet Elderkin (See Elderkin, Mrs. Kate McKnight)

B. S. Colburn Memorial Mineral Museum, Asheville, N.C.: 29 minerals from North Carolina (242582, exchange).

Babcock, Mrs. Caroline L., Blairstown, N.J.: 6 campaign items from the World Peace and Women Suffrage movements (246529).

Bache, Jack, Jr. (See Dresser Industries, Inc.)

Backus, Dr. Richard H. (See Woods Hole Oceanographic Institution.)

Bader, Mr. and Mrs. Franz, Washington, D.C.: 2 engravings (245966).

Baghdad, University of, Abu Ghraib, Iraq: (Through Dr. Fred A. Barkley) 196 phanerogams, 233 grasses, and a fern from Iraq (243831).

Bailey, Helen M., and Ferguson, Belle, Winter Park, Fla.: 2 silver teaspoons (242705).

Bailey, Dr. Joseph R. (See Duke University)

Bailey, Josiah W. (See Matthews, W. C.)

Bailey, Prof. Stanley F., Davis, Calif.: 6 thrips, paratypes, from California and India (246550, exchange).

Bailey Meter Co., Cleveland, Ohio: (Through Harold R. Currutt) Bailey boiler meter, 1914 (247993).

Baker, Dr. Arthur A. (See Interior, U.S. Department of the)

Baker, Col. Hinton J. (See Defense, U.S. Department of)

Baker, Hugh J., Jr., Indianapolis, Ind.: 1841 letter, bearing Mooresville,

Ind., postmark (242714).

Baker, Sid G., North Kamloops, B. C., Canada: Mordenite from Canada (246732, exchange).

Baker Oil Tools, Inc., Tulsa, Okla.: (Through R. C. Glover) items representing donor's contributions to oil well cementing methods, and a casing shoe and pitman with counter balance (247799).

Balduf, W. V., Urbana, Ill.: 2 weevils from Minnesota (245053).

Baldwin, Dr. J. T., Williamsburg, Va.: Planarian (238318).

Balk, Dr. Christina L., Socorro, N. Mex.: 37 trilobites from the Franklin Mountains of Texas (243673).

Balk, Dr. Christina L., and Hu, Chung-Hung, Socorro, N. Mex.: 237 invertebrate fossils from the Upper Cambrian of Pennsylvania (246861).

Ball, Dr. George E., Edmonton, Alberta, Canada: 400 centipedes from Alaska and Mexico (244752, 244866).

Ballent, Joseph E., Tampa, Fla.: (Through Dr. Donald F. Squires) 68 corals from the Tertiary of Tampa Bay, Fla. (246431).

Balsbaugh, Edward U., Jr., Auburn, Ala.: 7 scarab beetles from Alabama (246863).

Baltimore and Ohio Railroad, Baltimore, Md.: (Through William E. Pyne) 14 items of photographic equipment and accessories (242984).

Bănărescu, [Dr. P. (See Academia Republicii Populare Romine)

Banco do Brasil, S. A., Rio de Janeiro, Brazil: (Through Fernando Monteiro) medal commemorating the Centennial of the Banco do Brasil, April 10, 1954 (242811).

Bandy, Dr. Mark C., Marshalltown, Iowa: Glauberite from Verde Valley, Ariz. (243331).

Banse, Dr. Karl (See Washington, University of)

Baranova, Dr. Z. I., Leningrad, U.S.S.R.: 5 brittle stars (238287, exchange).

Barbarycz, Dr. A. (See Academy of Sciences of the Ukrainian S.S.R.)

Barbosa, Ivete, Recife, Pernambuco, Brazil: (Through Chicago Natural History Museum) 6 marine invertebrates (226074).

Barbour, Jack N., Brentwood, Md.: Quartz coated with calcite and quartz gravels from Middleville, N.Y. (245567).

Barker, Gene, Winter Park, Fla.: 4 amphipods (242524).

Barkley, Dr. Fred A. (See Baghdad, University of)

Barnard, Dr. J. Laurens (See Allan Hancock Foundation; Beaudette Foundation; Institute of Marine Bio-Research; Reish, Dr. Donald J.)

Barnes, John E., Agana, Guam: 27 minerals from near Umatac, Guam (244856).

Barnes, Col. Theodore, Miami, Fla.: Carved ivory figure from Japan (243838); (through B. Woodruff Weaver) platinum and diamond man's watch, early 20th century (223837); (through Mrs. B. Woodruff Weaver) Elgin pocket watch (246534).

Barnes, Mrs. Warren Webster, Washington, D.C.: Arms and lineage of the Washington family (243592).

Barr, Dr. A. Ralph, Fresno, Calif.: 399 mosquitoes from North America (253695).

Bartlett, Mrs. Cornelia Comegys, New York, N.Y.: (Through Zelina Comegys Brunshwig) pair of Chinese porcelain vases originally used in the Comegys library given in memory of donor's father, Dr. Joseph P. Comegys (247864).

Bartley, Floyd, Circleville, Ohio: 226 phanerogams, 23 grasses, 6 ferns, and 29 mosses from Ohio and West Virginia (233495, 242805, 245187).

Basch, Dr. Paul F., San Francisco, Calif.: 3,000 fresh-water mollusks from North America (243132).

Bashlow, Robert, New York, N.Y.: Restrike of the Confederate cent in gold and 2 dies patterned after the Continental dollar (242258, 242259).

Bassel, Cornelia B., Washington, D.C.: Linen damask tablecloth and 12 matching napkins, ca. 1900 (245206).

Bassett, Preston R., Ridgefield, Conn.: (Through Early American Industries Assoc.) early bearing block for a bow drill (247530).

Bastedo, Mrs. Walter A., New Canaan, Conn.: Pen, card case, and valentine (244990).

Batchelor Fund, Charles and Rossanna, Smithsonian Institution: 5,627 miscellaneous U.S. and foreign airmail stamps, covers, and associated memorabilia (243591, 247029).

Batham, Dr. Elizabeth J., Portobello, New Zealand: 31 sea anemones (216181, exchange). (See also Portobello Marine Biological Station)

Bathras, T. J., Sr., Washington, D.C.: Explosive disposal badge (242999).

Battison, Edwin A., Arlington, Va.: 3 watch movements (246880, 247823).

Baum, Mrs. Clete P., Bethesda, Md.: 2 Continental currency notes, 1779 (247975).

Bauman, Mrs. H. J. (See Coons, Mrs. Minnie Smith)

Bayer, Dr. Frederick M. (See Moore, Donald R.)

Beacon Chapter #30, Cambridge, Mass.: (Through Michael J. Hamill) model of beam steam engine, 1840 (243112).

Beattie, Richard, New York N.Y.: 6 photographs (243104).

Beaudette Foundation, Santa Ynez, Calif.: (Through Dr. J. Laurens Barnard) 500 amphipods, including 74 type specimens (239388).

Beck, Mrs. Elisabeth C. (See Florida, State of)

Beck, H. D. (See Parke, Davis & Company)

Becker, Clarence D., Seattle, Wash.: 5 slides, containing types of new species of Protozoa from fish, from Washington State (242304).

Becker, Ralph E., Washington, D.C.: 3 snuff-boxes, mid-19th century (242326); coat worn by President Theodore Roosevelt (242604); letter from Admiral George Dewey, November 25, 1903, to Rear Admiral C. D. Sigsbee (243891); paper weight bearing photograph of Admiral Dewey (246689).

Beckwith, Robert Lincoln, Washington, D.C.: Scabbard and engraved Henry repeating rifle presented to President Lincoln (246404).

Bedeler, Mrs. Harold, Washington, D.C.: Hand loom (243363).

Bedinger, Dr. M. S. (See Hobbs, Dr. Horton H., Jr.)

Bedini, Silvio A., Washington, D.C.: 3 weather glasses, ca. 1900 (247190).

Beil, Dr. Hanswilhelm, Hamburg-Volksdorf, Germany: 7 minerals from Austria, Germany and Italy (244728, exchange).

Beil, Mr. and Mrs. Lee R., St. Petersburg, Fla.: 4 marine mollusks from the Bay of Panama (247568).

Belcher, Earl T., Channahon, Ill.: 2 invertebrate fossils from the Upper Ordovician of Tennessee (246781).

Belkin, Dr. John H., Los Angeles, Calif.: 18 mosquitoes (244781, exchange).

Bell, Benjamin S., Washington, D.C.: British powder bag cannister, ca. 1880 (245960).

Bell, Gary L., Oceanside, Calif.: (Through Dr. Herbert R. Axelrod) fish from an aquarium (243807).

Bell, James M. (See Post Office Department)

Bell Telephone Laboratories, New York, N.Y.: (Through Dr. J. D. Tebo and A. R. Thompson) electron diffraction apparatus, Davisson's electron gun (242378).

Bemelmans, J. L. H. (See Technische Hogeschool)

Benedict, Dr. Ralph C., Pilot Knob, N.Y.: Fern from New York (244723).

Bennett, Dr. Charles F., Jr., Los Angeles, Calif.: 2 fresh-water mollusks from eastern Panama (247951).

Benninghoff, Dr. William S. (See Michigan, University of)

Berggren, W. A. (See Naidin, Dr. D. P.)

Berkebile, Don H., Takoma Park, Md.: 18th-century wagon jack, 1860 farm wagon, and 3 check blanks, early 1900's (244494, 245897, 246221).

Berlyn, Dr. Graeme P. (See Yale University)

Berry, Frederick H. (See Interior, U.S. Department of the)

Berthold, Joseph A. (address unknown): (Through Sidney D. Hass) 130 distinctive insignia of World War II (244223).

Berwick, Mrs. Clara W., Norwood, Mass.: 7 oriental rugs (245693).

Bethlehem Gear and Machine Co., Wheeling, W. Va.: (Through Frank G. Brockardt) shutter mechanism from early Powers motion picture projector (241929).

Bethlehem Steel Co., Bethlehem, Pa.: (Through William A. Latshaw) segmental tunnel lining ring (244227); (through E. T. Moffett) color film showing the Bessemer furnace operations at Sparrows Point, Md. (247176).

Betts, Brig. Gen. Thomas J., Washington, D.C.: Embroidered mandarin robe (242667).

Bieri, Dr. Robert, Yellow Springs, Ohio: 200 amphipods (243988).

Biezanko, Dr. C. M., Pelotas, Brazil: 839 miscellaneous insects from South America (244737, 246126, 247358, 247758, 247939).

Bigelow, Dr. Henry B. (See Harvard University)

Bingham, Mrs. W. V., Washington, D.C.: 2 Japanese fisherman's baskets (242666).

Binsted, Mrs. Norman, Washington, D.C.: Bodice, scarf, and skirt from the Philippines (242665).

Birbal Sahni Institute of Palaeobotany, Lucknow, India: (Through Dr. K. R. Surange) 48 slides of woods from India and Venezuela (245684, 247464, exchanges).

Birch, Mrs. G. Albert, Washington, D.C.: Wedding vest worn by Col. William Louis Schley (246807).

Birmingham, University of, Birmingham, England: (Through Dr. L. J. Wills) 2 fossils from the Silurian of the Island of Oesal (246001, exchange).

Bishop Museum, Bernice P., Honolulu, Hawaii: (Through Dr. J. Linsley Gressitt) 241 miscellaneous insects from Batu Caves, Malaya (246514); (through Dr. Phyllis T. Johnson) 5

fleas from Asia (245094); (through Dr. Lawrence W. Quate) 77 slides of insects from the Orient (244386). (See also Defense, U.S. Department of)

Bishop, Dr. Philip W., Washington, D.C.: 16 miscellaneous foreign postage stamps and covers (247653).

Blair, Dr. Albert P., Tulsa, Okla.: 27 crayfishes (242496). (See also Tulsa, University of)

Blakeslee, Lt. Col. Theodore E. (See Defense, U.S. Department of)

Blancett, Esther, Washington, D.C.: 8 miscellaneous U.S. covers and meter impressions bearing Ohio postal markings (247652).

Blanchard, A., Houston, Tex.: 53 butterflies from North America (247351).

Blanchard, Ruth E. (See Smithsonian Institution)

Bleier, Dr. Ruth (See Johns Hopkins University)

Blickenstaff, Dr. C. C., Beltsville, Md.: 3,004 miscellaneous insects from Africa (244478).

Bliss, Mrs. Robert Woods, Washington, D.C.: 2 German Mauser rifles and a U.S. rifle (244652).

Blood, Dr. Benjamin D. (See Pan American Zoonoses Center)

Bobo, Roy A. (See Reed Roller Bit Company)

Bodson, Dr. Herman, Stow, Ohio: 4 minerals from Katanga, Congo (245409, exchange).

Bogert, Dr. Charles M. (See American Museum of Natural History)

Bohart, Dr. Richard M (See California, University of)

Bohon, Green B., Fairfax, Va.: Japanese bronze inkwell and brush holder given in memory of donor's father, A. D. Bohon (242663).

Bokermann, Werner C. A., São Paulo, Brazil: 21 frogs from Brazil, including 4 paratypes of 3 new species (247038, exchange).

Boljanich, Steve, Monterey, Calif.: Montenegrin sleeveless coat, 1900, given in memory of donor's wife, Mrs. Violet Grkovich Boljanich (246389).

Boll, C. R. (See Cummins Engine Co., Inc.)

Bologna, University of, Bologna, Italy: (Through Prof. Paolo Gallitelli) specimen of the Renazzo, Italy, meteorite (246363, exchange).

Bolte, William J., Ft. Lauderdale, Fla.: (Through Roland Spencer) mounted diamond rattlesnake from Florida collected by donor (245059).

Bonet M., Dr. Federico (See Instituto Politécnico Nacional)

Bonnet, Prof. A. L. M. (See Université de Montpellier)

Bordewich, Mrs. Louis E., Cheverly, Md.: Doll's lounge, child's table, carpet beater, potato masher, and a springerle board (243124).

Boschi, Dr. Enrique E. (See Facultad de Ciencias Exactas y Naturales)

Boston, Prof. Orlan W. (See Michigan, University of)

Boston University, Boston, Mass.: (Through Dr. R. U. Gooding) callianassid (236426); (through Dr. Arthur G. Humes) 835 copepods and 17 isopods (245065); (through Drs. Arthur G. Humes and R. U. Gooding) 2 hard corals (244163).

Bostrom, Martin, Orebro, Sweden: First-day cover commemorating Nobel Prize winners of 1902 (247787).

Botanisch Museum en Herbarium, Utrecht, Netherlands: (Through Dr. K. U. Kramer) 57 ferns (244722, exchange).

Botanischer Garten und Museum, Berlin-Dahlem, Germany: 41 photographs of phanerogams, types (247924, exchange); (through Dr. Walter Domke) 2 photographs of types of phanerogams (245947, exchange); (through Dr. D. E. Meyer) 3 photographs of type specimens of ferns (242249, exchange); (through Dr. W. Schultze-Motel) 543 mosses from Europe (242685, exchange).

Bothe, Mrs. Albert E., Merchantville, N.J.: Silver cup from Guatemala and a 1754 Spanish piece of eight given in memory of Dr. Albert E. Bothe and Anne Bradley Bothe (241965).

Bouček, Dr. Z., Prague, Czechoslovakia: 4 chalcid flies from Europe (245091, exchange).

Boucot, Dr. Arthur J., Pasadena, Calif.: 6,000 brachiopods from the Silurian of Czechoslovakia (234486).

Bournier, Dr. A., Montpellier, France: Thrip from France (245340, exchange).

Bourquin, Dr. Fernando, Buenos Aires, Argentina: 4 moths (242971).

Bousfield, Dr. E. L., Ottawa, Ontario, Canada: 10 isopods (241485). (See also Lindroth, Dr. Carl H.)

Bow, Hon. Frank T., Washington, D.C.: 3 framed engravings (243748).

Bowen, Dr. Vaughan T., Woods Hole, Mass.: 14 corals (239678).

Bowles, Edmund (See International Business Machines Corp.)

Bowman, Horace (See Commerce, U.S. Department of)

Boyd, Mrs. E., Santa Fe, N. Mex.: Oriental rug (243872).

Boyd, Mrs. F. C. C., East Orange, N.J.: 572 Mexican coins, tokens, and medals and 8 U.S. emergency notes issued during World War II (245706, 245785).

Boyer, R. L. (See Debes, James H.)

Bradford, Faith, Washington, D.C.: China bonbonnière of 1910-20 (242615).

Brady, John B. (deceased): (Through Mrs. John B. Brady) 22 items of Lowell and Dunmore radio experimental equipment (245709).

Brady, Mrs. John B. (See Brady, John B.)

Braithwaite, Dr. Lee F. (See Brigham Young University)

Brandon, Sister Mary (See Rosary College)

Brannigan, Philip J. (See Interstate Commerce Commission)

Brass, Dr. Leonard J. (See Archbold Biological Station)

Brendel, Louis H., Bridgeport, Conn.: (Through Early American Industries Assoc.) trisquare and router, 18th and 19th centuries (247526).

Brennan, James M. (See Health, Education, and Welfare, U.S. Department of)

Briceno-Maas, Dr. T., Barcelona, Venezuela: Fish, grasshopper and scorpion from Venezuela (243180).

Bridgeport Historical Society, Inc., Bridgeport, Conn.: 103 fragments from

the Harral-Wheeler mansion; also 4 window cornices and a fireplace from a former New York dwelling (242446).

Briggs, William M., Jr., Washington, D.C.: 150 marine mollusks from Funafuti Atoll, Ellice Islands (244636).

Brigham Young University, Provo, Utah: 60 phanerogams and grass from the United States (246108, exchange); (through Dr. Donald M. Allred) 20 isopods (245642); (through Dr. Lee F. Braithwaite) sea anemone (245550).

Brinton, Dr. Edward (See Scripps Institution of Oceanography)

British Columbia, University of, Vancouver, Canada: (Through E. B. Peterson) cryptogam from British Columbia (242035); (through Dr. W. B. Schofield) 230 cryptogams from British Columbia (244345, exchange).

Broadcast Music, Inc., New York, N.Y.: (Through Carl Haverlin) 13 pieces of sheet music (243205).

Brockardt, Frank G. (See Bethlehem Gear and Machine Co.)

Brockmeyer, O. B. (See Bulova Watch Company)

Brooke, Mrs. Frederick, Washington, D.C.: 2 Meissen figure groups (246155).

Brooks, C. F., Bluefield, W. Va.: Hygrometer (244292).

Brooks, Dr. H. K. (See Florida, University of)

Brooks, Herbert J., Alexandria, Va.: Jacquard double-woven coverlet of 1848 (243362).

Brown, Dr. Clair A., Baton Rouge, La.: 119 ferns from Costa Rica (242688).

Brown, I. V., Emily, Minn.: Lake Superior agate from Crow Wing Co., Minn. (244380).

Brown, Lt. Col. Kimbrough S., Dayton, Ohio: U.S. Air Force flying helmet (245195). (See also Defense, U.S. Department of)

Brown, Dr. Larry N., Columbia, Mo.: 13 mammals from Missouri (245958).

Brown, Stuart M., Jr., Ithaca, N.Y.: 10 marine mollusks from Grand Cayman (243433).

Brown, Dr. W. L., Jr., Ithaca, N.Y.: 63 centipedes and earwigs from Africa,

Brazil and Panama (244740, 244741, 246127, 246512).

Brown, Mrs. Wagner S., Tucson, Ariz.: Silk dress of 1869 (243743).

Brtek, Dr. Jan (See *Vlastivedné Múzeum V Bojniciach*)

Bruce, George A. (See International Import Co.)

Bruce, James A. (See Defense, U.S. Department of)

Bruening, Robert J., Neenah, Wis.: 2 beryls and a chrysotile from Wisconsin (243841).

Bruns, Franklin R., Jr., Takoma Park, Md.: Presentation booklet containing sheet of 50 U.S. postage stamps (245623).

Brunschwig, Mrs. Roger E., New York, N.Y.: Pair of carved alabaster vases originally used in the Comegys library and a family album given in memory of donor's father, Dr. Joseph P. Comegys (245739).

Brunschwig, Zelina Comegys, New York, N.Y.: Pair of upholstered Empire armchairs given in memory of donor's father, Dr. Joseph P. Comegys, (244057). (See also Bartlett, Mrs. Cornelia Comegys)

Bryant, William C., Jr., Fort Meade, Md.: Pathex motion picture camera-projector and accessories (245095).

Buchanan, Honorable Wiley Thomas, Jr., Washington, D.C.: Black cultured pearl (245423).

Bucheister, Carl W. (See National Audubon Society)

Buchstaff, Ralph N. (See Oshkosh Public Museum)

Bullard, William C. (See Interior, U.S. Department of the)

Bullis, Harvey R., Jr. (See Interior, U.S. Department of the)

Bulova Watch Co., New York, N.Y.: (Through O. B. Brockmeyer) 1 gram of 54-gage copper wire used in the Acutron timepiece (243027); (through Haskell C. Titchell) tuning fork (248056).

Bunger, Mrs. Bessie Ellicott, Bell, Calif.: **Ellicott, Myron**, Southgate, Calif.; and **Ellicott, Glenn**, Artesia, Calif.: Silver camp cup originally

owned by Maj. Andrew Ellicott (241136).

Burch, Mrs. Beatrice L., Washington, D.C.: 4 crayfishes (244020).

Burch, Janthina (See Burch, John)

Burch, John and Janthina, Silver Spring, Md.: 20 marine invertebrates (244320).

Burch, R. D., Houston, Tex.: 107 marine mollusks from Freeport, Tex. (247952).

Burcham, L. T. (See California, State of)

Burdette, Mrs. John S., Arlington, Va.: Straight-edge razor, late 19th century (243464).

Bureau de Recherches Géologiques et Minières, Paris, France: (Through Dr. C. Guillemin) 44 minerals (242218, exchange).

Burgess, George M. (See Schwab Safe Co., Inc.)

Burke, Dr. Horace R., College Station, Tex.: 2 weevils, paratypes, and 2 spider beetles from Texas (243567, 245955).

Burkenroad, Martin D., Panama, Republic of Panama: 4 callianassids (242562).

Burks, Dr. Barnard D., Washington, D.C.: 15 miscellaneous foreign covers bearing postage stamps (247483).

Burnham Golden Jubilee, Inc., Burnham, Pa.: (Through Token and Medal Society and John I. Stewart) 50-cent trade token issued by Burnham Golden Jubilee, Inc., 1961 (242710).

Burt, Dr. Charles E., Topeka, Kans.: 4 starfish and 4 asteroids (241070).

Burt, Mrs. Erika, Wuerzburg, Germany: (Through Mrs. Esther Cole Franklin) Ecuadorian pottery figurine (245070).

Burundi, Government of: (Through Agence Philatélique) 2 first-day covers (244081, 247786).

Bush, J. E., Moorestown, N.J.: 2 ancient plated coins and a piece patterned after a denarius of the 2nd revolt of the Jews (245708).

Bushey, Dr. Harold L., Barbourville, Ky.: 2 wooden nickels commemorating

the 1962 festival by the Daniel Boone Festival Committee (244660).

Buxton, George M. (See California, State of)

Bye, Albert, Kansas City, Mo.: Hematite from Soudan, St. Louis Co., Minn. (243329).

Caemmerer, Mrs. Alice B., Winter Park, Fla.: Woman's dressing gown and dressing sack of 1880 (242800).

Cahoon, Frank, Port Tobacco, Md.: Bobcat from Alabama (245580).

Cailler, Mrs. Hugh E., New York, N.Y.: Creamer, milk pitcher, basket, christening medallion, all of silver, plated coaster, embroidered shawl, and a ceramic mug (245151).

Caillère, Mlle. Simonne (See Muséum National d'Histoire Naturelle)

Cain, Dr. Roy F. (See Toronto, University of)

California, State of: *Department of Agriculture:* (Through George M. Buxton) 6 insects from California (247355); (through George T. Okumura) 4 small moths from California (247348); (through Roy R. Snelling) 100 ants from California (247933); (through Dr. Marius S. Wasbauer) 30 bees, paratypes, and 25 fruit flies from North America (246309, 246862). *Department of Conservation:* (Through L. T. Burcham) 3 grasses from California (243308). *Department of Fish and Game:* (Through John E. Fitch and Dr. Daniel M. Cohen) deep-sea fish from the Pacific (244383); (through Dr. Charles H. Turner) 2 shrimps and a tunicate (247336). *Division of Mines and Geology:* (Through John T. Alfors) 3 taramellite and sanbornite specimens from Big Creek, Fresno Co., Calif. (243330); (through Robert A. Matthews) taramellite and sanbornite from Rush Creek, Fresno, Calif. (242672, exchange). *State Fisheries Laboratory:* (Through Dr. Charles H. Turner) 2 marine bivalve mollusks from off Hermosa Beach, Calif. (247944).

California, University of, Berkeley Campus: 338 phanerogams, 21 grasses, and 6 ferns (243670, exchange); 4 phanerogams and 11 ferns (244725,

245417); 298 phanerogams, 46 ferns, and grass (247193, gift-exchange); (through J. Wyatt Durham) 14 sea urchins (231456); (through William R. Kellen) 26 marine invertebrates (195136); (through Dr. Herbert L. Mason) 12 phanerogams (240598); (through Isabelle Tavares) 8 lichens from California (244267); 31 miscellaneous cryptogams (246676, exchange). *Davis Campus:* 3 grasses from California (247616); (through Dr. Richard M. Bohart) 5 wasps, including 3 paratypes from North America (243694, 246513). *Los Angeles Campus:* 2 phanerogams (242255, 245074). *Santa Barbara Campus:* (Through Prof. Robert M. Norris and Prof. Robert W. Webb) Neenach, Los Angeles County, Calif., meteorite (241984).

California Academy of Sciences, San Francisco, Calif.: (Through Dr. Paul H. Arnaud, Jr.) paratype of a tachinid fly from Peru (244863); (through John Thomas Howell) fern from California (238898).

Calmes, Mrs. Lucille Agniel, Washington, D.C.: "Jailed for Freedom" pin commemorating imprisonment of donor in interests of woman suffrage (247867).

Cambio Alessandro Pizzorni & Co., Milan, Italy: 30 aluminum off-strikes from the gold series entitled, "the most beautiful coins in the world," issued in 1961 by donor (242365).

Cambridge, Sgt. Philip, Cardiff, Wales: 89 invertebrate fossils from the Mesozoic and Paleozoic of Europe and Great Britain (242104).

Cambridge University, Cambridge, Mass.: 299 phanerogams and 12 grasses from Colombia (246601).

Campbell, Bruce, Chevy Chase, Md.: Toy Model-T-Ford pick-up truck (247181).

Campbell, Bruce, Lynwood, Calif.: Paratype of a marine mollusk from Guaymas, Mexico (247950).

Campbell, Dr. John M., Washington, D.C.: Human skull, apparently Eskimo, from Ikiokpok Creek, Alaska (246998).

Campbell, M. B. (deceased): (Through Mrs. John L. Hindelang) man's cane of

the early 19th century (244989).

Canada, Government of: *Department of Agriculture:* (Through Dr. W. R. Richards) 5 aphids from North America (246789). *National Museum of Canada:* (Through Dr. D. E. McAllister) 10 fishes, including a paratype, from Alaska, Czechoslovakia and Japan (246281, exchange).

Canfield Fund, Smithsonian Institution: Amethyst from Margaritha Mine, Guerrero, Mexico (243682).

Cape Haze Marine Laboratory, Sarasota, Fla.: (Through Dr. Eugenie Clark) 43 miscellaneous fishes from the south Red Sea (239860).

Capen, Charles F., New York, N.Y.: (Through Dr. David Dunkle) 32 invertebrate fossils from the Mesozoic of Iran (243334).

Capener, Dr. A. L., Pretoria, South Africa: 124 tree-hoppers from Africa (241379).

Capewell Manufacturing Co., Hartford, Conn.: (Through Staunton Williams) machine for production of horse-shoe nails (243357).

Capitol Medals, Inc., High Point, N.C.: (Through A. C. Schultz) bronze and silver medals dedicated to the State of North Carolina (244876); (through A. C. Schultz and Token and Medal Society) 2 medals dedicated to the State of West Virginia (246145); (through Token and Medal Society) medal dedicated to the State of Ohio (242708); 2 Michigan State medals (245601).

Caplin, Mortimer M. (See Treasury, U.S. Department of the)

Carey, Dr. Benjamin W. (See Lederle Laboratories)

Carl, Mrs. G. C., Victoria, B. C., Canada: 2 shrimps, holotypes (244108).

Carmichael, Dr. Leonard, Washington, D.C.: 41 items of photographic equipment (242985); lithograph, an engraving, 3 drawings, 19 chromolithographs, and 3 electrotypes of wood engravings (243354); medal struck in 1962 by the City College of the City University of New York in honor of

Dr. Robert Hofstadter (245210).

Carmichael, Dr. and Mrs. Leonard, Washington, D.C.: Chair made from the Washington Elm (237100).

Carnegie Institute of Technology, Pittsburgh, Pa.: (Through Prof. S. A. Friedberg) velocity selector related to the work of Drs. Otto Stern and Immanuel Estermann (244963).

Carnegie Institution of Washington, Washington, D.C.: (Through Dr. M. A. Tuve) 16 miscellaneous insects (244923).

Carnegie Museum, Pittsburgh, Pa.: (Through Dr. Kenneth C. Parkes) 3 bird skins (247155).

Carr, Mrs. David W., Washington, D.C.: 81 phanerogams and a cryptogam from Jordan (246506).

Carroll, Maj. Sheldon S., Halifax, Nova Scotia: (Through Token and Medal Society) medal struck commemorating the bicentenary of H. M. C. Dockyard, Halifax (242260).

Carto-Philatelists, New York, N.Y.: (Through Allen H. Seed, Jr.) 34 mint and used stamps depicting maps (244961).

Casey, Louis S., Washington, D.C.: U.S. Army Air Force jacket of World War II (244952).

Cash, William V., Washington, D.C.: 3 Mexican vessels, 2 pottery lamps, Greek and Roman, and 17 Indian pottery specimens from southwest U.S. (244995).

Caster, Dr. Kenneth E., Cincinnati, Ohio: 115 brachiopods and mollusks from the Permian of Tasmania (243765).

Castner, J. D. (See Sohio Petroleum Co.)

Cate, Mr. and Mrs. Crawford N., Los Angeles, Calif.: 4 marine mollusks, paratypes, from California (242525).

Causey, Dr. Nell B., Fayetteville, Ark.: 100 centipedes from India (247723).

Cavaliere, Mrs. Shirlee S. (See Duke University)

Cech, Prof. Frantisek (See Charles University)

Cekalovic K., Tomás, Magallanes, Chile: 747 miscellaneous insects from Chile (239967, exchange).

Centre d'Étude de l'Énergie Nucléaire, Brussels, Belgium: (Through Dr. S. Amelinckx) 76 mollusks from the Pliocene of the Scaldesian formation of Belgium (242473, exchange).

Cerame-Vivas, Dr. Máximo, Beaufort, N.C.: 36 sea anemones (242129).

Chace, Emory P., San Diego, Calif.: 12 sea-shore snails from the Gulf of California (246811). (See also Natural History Museum)

Chainey, Mrs. Louisa Z., Arlington, Va.: 9 uniforms and insignia of World War II related to Women's Army Corps, a leather handbag, gloves, and overcoat (242995).

Chaires, G. Bates (See Maryland State Roads Commission)

Chamberlain Fund, Frances Lea, Smithsonian Institution: 3,719 marine mollusks from Italy and North Borneo (242279, 245692); scheelite from Mexico (242478); quartz egg, 4,500 carats, and a sterling silver, gold-plated stand with 20 Montana sapphires (244944); 2 axinites from Mexico (245229); cat's eye tourmaline from Mesa Grande, Calif. (247620).

Chambers, Frank (See Hudson River Museum)

Chambers, Dr. Kenton L. (See Oregon State University)

Chandler, Dr. Leland, Lafayette, Ind.: Scarab beetle from the U.S. (246568, exchange).

Channing, James F., Alexandria, Va.: Pair of woman's white muslin half sleeves and muslin petticoat band (245049).

Chapman, Mrs. Josephine M. (See Schmid, Walter)

Chappelear, James, Chevy Chase, Md.: 4-cent Sam Rayburn Commemorative stamp and an 8-cent airmail stamped envelope (247380).

Charette, Leopold A. (See Vermont, University of)

Charles, Mrs. Philip, Arlington, Va.: Morning dress, ca. 1895 (242468).

Charles University, Prague, Czecho-

slovakia: (Through Prof. Frantisek Cech) 2 hambergites from Czechoslovakia (245236, exchange).

Chas. Pfizer and Co., Inc., New York, N.Y.: (Through Larry J. Schecter and Gen. J. Lawton Collins) wooden silvering cup and a late 17th-century Lambeth Delft pill tile (248003).

Chase, Emily and Nannie, Washington, D.C.: 8 examples of women's dress of the 19th and 20th centuries (242735).

Chase, Nannie (See Chase, Emily)

Chase, Philip H., Wynnewood, Pa.: Album of 286 Confederate Treasury notes (242131).

Chatham Medals Committee, Chatham, Mass.: (Through Token and Medal Society) medal commemorating the 250th anniversary of the town of Chatham, Mass. (243476).

Chatterjee, Pranab K., West Bengal, India: Brachiopod from the Jurassic and belemnite from the Cretaceous of India (247213, exchange).

Cheney, Morton, Albuquerque, N. Mex.: Hawkeye box camera with plate holders, Korona camera with interchangeable shutters, lens, 3 color filters, darkroom lantern, and several glass plate negatives (241955).

Cheng, Dr. Thomas C., Easton, Pa.: 15 fresh-water snails from Pennsylvania (242331).

Chesterman, A. E. (See Faber, John)

Chevalier, Mrs. C. E., Riviera Beach, Fla.: 5 buttons (245763).

Chew, Dr. Kenneth K. (See Washington, University of)

Chiavassa, H. (See Monaco, Government of)

Chicago, Burlington & Quincy Railroad Co., Chicago, Ill.: (Through J. J. Alms) model of Pioneer Zephyr train, 1934 (247887).

Chicago Natural History Museum, Chicago, Ill.: 147 photographs of phanerogams, including type (245448, 247467, exchanges); 395 phanerogams, 97 grasses, 15 ferns, 68 mosses and a cryptogam from Northwest Territories, Canada (247001, 247149, 247151, exchanges); (through Dr. Robert F. Inger) 26 frogs from Colombia (244372,

exchange); (through Dr. John R. Mil- lar) 249 type photographs (247147, ex- change); (through Dr. E. Olsen) phenacite from U.S.S.R. (244432, ex- change); (through Loren P. Woods) fish from the Virgin Islands (242451); 2 fishes, holotypes (245004, exchange); (through Loren P. Woods and A. R. Watkins) 11 fishes from Tahiti col- lected by Mr. Watkins (242879, ex- change). (See also Barbosa, Ivete, and Defense, U. S. Department of)

Chicago Pneumatic Tool Co., New York, N.Y.: (Through T. P. Harris) cut- away Boyer riveting hammer (244499).

Chilcutt, Bill (See Karstens, Jerry)

Chilcutt, Serene (See Karstens, Jerry)

Chirichigno F., Norma (See Minis- terio de Agricultura)

Christensen, Gordon H., Salt Lake City, Utah: Martin Luther medal issued in commemoration of first centennial of the Reformation in 1617 (240949).

Christenson, L. W., Cleveland Heights, Ohio: 2 unused stamps of Latvia, 26 used 19th century stamps of Japan and 28 miscellaneous Japanese and Ryukyu Islands postal stationery items (243901, 247487).

Chromy, Benjamin J., Saratoga, Calif.: 2 heulandites from Elk Valley, Del Norte Co., Calif. (243679).

Chudnoff, Martin (See National and University Institute of Agriculture)

Cilen, Joseph, Hawthorne, N.J.: Sphene and hornblende from Fort Lee, N.J. (245312).

Cinadr, Mrs. Frank, Cleveland, Ohio: 3 moldavites from Czechoslovakia (246780).

Cincinnati, University of, Cincinnati, Ohio: (Through Dr. Thomas K. Wil- son) 9 slides of wood (242692, 244721, exchanges).

Citizens of Greenville and Spartan- burg, S.C.: (Through Sen. Charles C. Moore; Sen. P. Bradley Moorah; Hon. Gus Smith; and Dr. George Dean John- son) cacheted envelope postmarked during the dedication of the Greenville- Spartanburg, S.C., airport (246528).

Clain-Stefanelli, Mrs. Elvira, Wash- ington, D.C.: 52 religious medals (245612).

Clain-Stefanelli, Dr. Vladimir, Wash- ington, D.C.: 27 U.S. banknotes and scrip (245209); 7 copper coins struck at Salerno, Italy, during the 10th and 12th centuries (245602); 5 large British parchment indentures of the 18th and 19th centuries (245707); 8 Austrian proof coins and 7 Vatican coins (245793); 44 miscellaneous U.S. and for- eign covers and postal stationery (245881).

Clark, Dorothy M., Chelsea, Mass.: Nurse's uniform worn by Linda Rich- ards (245626).

Clark, Earl W., Cincinnati, Ohio: Electric street railway controller, 1917 (242157).

Clark, Dr. Eugenie (See Cape Haze Marine Laboratory)

Clark, Mrs. J. M., Fayetteville, Ark.: 9 ferns from Arkansas (243444).

Clark, Dr. L. G. (See Pennsylvania, University of)

Clark, Dr. R. B. (See Cornell Univer- sity)

Clarke, Robert A., Mercedes, Tex.: Tailfin of a catfish from Texas (234515).

Clastrier, Dr. J., Alger, Algeria: 41 slides of biting midges (243566, ex- change).

Clements, D. Thomas (See United Nations Postal Administration)

Clewell, Andre F., Tallahassee, Fla.: 2 ferns (245769).

Clinch, Mrs. Bogert, Charlottesville, Va.: Wooden mask from Ceylon and a pair of paddles from British Guiana (242338).

Clore, J. M., Port Charlotte, Fla.: 560 ancient and modern bronze and silver coins collected in Israel by donor (245784).

Clore, J. M., and family, Port Char- lotte, Fla.: 178 archeological items from Jordan and Palestine (247970).

Closs, Dr. Darcy, Porto Allegre, Bra- zil: 4 brachiopods from Argentina (247821). (See also Universidade do Rio Grande do Sul)

Cobb, A. H., Jr., Afton, Va.: Motion picture film and Darlot lens (242704).

Cochran, Howe P. (See Stockvis, Mr. and Mrs. A. Philip)

Cohen, Dr. Alvin, Pittsburgh, Pa.: Jawa tektite from Sangirn, Java (242014).

Cohen, Dr. Daniel M. (See California, State of; Gosline, Dr. William, and Interior, U.S. Department of the)

Cole, Dr. A. C., Knoxville, Tenn.: 15 ants from North America (247731, exchange). (See also Tennessee, University of)

Colegio La Salle, Cochabamba, Bolivia: (Through Brother Adolfo M.) 12 ferns from Bolivia (247152).

Coleman, Mrs. D. L., Tampa, Fla.: 19 land snails from Tampa, Fla. (243081).

Colless, Dr. Donald H., Canberra, Australia: 17 mosquitos, paratypes, from Malaya and New Guinea (244753); 4 flies from Australia (247740, exchange).

Collett, C. H., Washington, D.C.: Forge bellows, ca. 1850 (244231).

Collins, Gen. J. Lawton (See Chas. Pfizer and Co., Inc.)

Collins, Jeremiah (See Smithsonian Institution)

Collins, R. W., Denver, Colo.: 2 pieces of wooden sucker rods (243704).

Colonial Williamsburg, Inc., Williamsburg, Va.: 42 lots of artifacts excavated by Ivor Noël Hume at site of early 18th-century house at Tutter's Neck, James City Co., Va. (242357).

Colorado, University of, Boulder, Colo.: Phanerogam, isotype (242141); (through Dr. D. D. Awasthi) 10 lichens from India (244133); (through Dr. William A. Weber) moss from Colorado (246448).

Colt's Patent Fire Arms Manufacturing Co., Hartford, Conn.: (Through W. B. Maloney) 15 modern weapons, including revolvers and automatic types (246313).

Columbia University, New York, N.Y.: (Through Ferdinand Oberthol) repeating circle of reflection, line of position computer or mechanical navigator of ships and aircraft (242377);

Lamont Geological Observatory, Palisades, N.Y.: (Through Robert S. Grinnell, Jr.) 322 hard corals (245436, 246442).

Commerce, U.S. Department of, Washington, D.C.: *Coast and Geodetic Survey*: 3 half-models of vessels (245635); (through William Ryland) transforming printer for printing aerial photographs (242982). *National Bureau of Standards*: U.S. bombsight and 67 packets of cut diamonds (247763, 247853); (through Horace Bowman) Riefler precision clock (243026); (through Dr. Lewis U. Judson) 2 dividing engines, test plates for Norbert engine, length comparator, and a microscope (247805). *Patent Office*: Hot-air engine, 1877 (245985). *Weather Bureau*: Dividing machine for straight lines and 22 meteorological instruments (245901, 247582).

Committee for Return of Confiscated German and Japanese Property, Washington, D.C.: (Through James Finucane) E. Howard watch (246027).

Compton, Henry (See Texas, State of).

Conant, Roger, Philadelphia, Pa.: 5 crayfishes (244311).

Conkin, James E., Louisville, Ky.: 23 land and fresh-water mollusks, from the Pleistocene of San Patricio Co., Tex. (242275); 96 Foraminifera, including 6 holotypes and 30 paratypes, from the Mississippian of Missouri (245078).

Conley, Blaine, Swan River, Minn.: Goethite from Mesabi Range, Itasca Co., Minn. (244626).

Connecticut, University of, Storrs, Conn.: (Through Dr. P. J. Sanjeeva Raj) leech, holotype (242126).

Conner, Mr. and Mrs. Carlton N., Hollywood, Fla.: Hair jewelry of the 19th-century, brooch, pair of earrings, and a bracelet (244371).

Conrad, Lyle G., Chevy Chase, Md.: 4 crayfishes, 5 amphipods, 6 isopods, and a fish (242495, 246921); 5 big-eared bats from West Virginia (242939).

Consistory of Bronxville Reformed Church, Bronxville, N.Y.: (Through

Hubert A. Howson) 10 books formerly in the Comegys library (244869).

Continental-Emsco Company, Dallas, Tex.: (Through F. M. Mayer and A. S. Glossbrenner) Corsicana rotary drilling rig (245968).

Converse, Mrs. Olivia, Valle de Bravo, Mexico: Phanerogam from Mexico collected by donor (242961).

Cooke, Lawrence S., Needham, Mass.: (Through Early American Industries Assoc.) 16 early hand tools (230693).

Cooley, Gene D., Roswell, N. Mex.: 68 butterflies and flies from New Mexico (246916).

Coolidge, John, Farmington, Conn.: Riding habit of President Calvin Coolidge (247977).

Coons, Wing Comdr. D. O., Rockville, Md.: 6 coins issued by the Canadian mint (243009).

Coons, Mrs. Minnie Smith (address unknown): (Through Mrs. H. J. Bauman) double-woven Jacquard coverlet, ca. 1832 (242987).

Cooper, Dr. G. Arthur, Washington, D.C.: 25 Recent brachiopods from worldwide localities and 3 fossils from Argentina (242472, 246303). (See also Skinner, Dr. Hubert C.)

Cooper, Dr. and Mrs. G. Arthur, Washington, D.C.: 1,000 invertebrate fossils from the Devonian of Ohio and Michigan (244349); photograph, "Who's in the Parlor?," by Wallace Nutting (247865).

Cooper, Mrs. J. M., Detroit, Mich.: Knitted lace edging, 2 pinking irons, tracing wheel, 6 upholstery needles, 2 tuning forks, a buttonhole, and scissors and scissor sharpener (242988).

Cooper, Mrs. Josephine W., Washington, D.C.: Splint basket (245977).

Cooper, Miner J., Windsor, N.Y.: (Through Early American Industries Assoc.) 4 19th-century hand tools (247514).

Coors Porcelain Company, Golden, Colo.: (Through Charles S. Ryland) alchemist's furnace (242606).

Cope, Mrs. W. Harold, Norwalk, Conn.: Silk crazy-patch quilt, ca. 1880 (246196).

Copeland, T. P., Johnson City, Tenn.: 5 insects, holotypes, from Tennessee (244931).

Copp, Belton Allyn, Jr. (deceased): (Through Mrs. Belton Allyn Copp, Jr.) 2 New England banister-back chairs, early 16th century (245048).

Copp, Mrs. Belton Allyn, Jr. (See Copp, Belton Allyn, Jr.)

Copp, John A., Strasburg, Va.: Pewter cup (246333).

Cormack, Maribelle (See Roger Williams Park Museum)

Cornell University, Ithaca, N.Y.: (Through Dr. Edward D. Raney and Leslie Krupp) 14 crayfishes, 2 shrimps, 2 portunid crabs, and 123 insects (242523). *Bailey Hortorium*: 78 phanerogams (246113, exchange); (through Dr. R. B. Clark) photograph of phanerogam (245563, exchange); 23 phanerogams (247106); (through Dr. Harold E. Moore, Jr.) 6 phanerogams (246854).

Cornman, Dr. Ivor, Kingston, Jamaica: 12 marine mollusks from Bimini, Bahamas, and 9 marine invertebrates (245662).

Correll, Dr. Donovan S. (See Texas Research Foundation)

Cosgrove, G. E., Oak Ridge, Tenn.: Holotypes and 10 paratypes of nematode worms from an Amazonian marmoset-like primate (246369).

Cossio, Sr. José L., Jr., Mexico, D. F.: 3 skins of swifts (243852).

Cowan, Dr. George A., Los Alamos, N. Mex.: Block of pristine salt (243706).

Cowgill, Wilaby Wallace, Moberly, Mo.: 2 pairs of spectacles, shoe last, and a small wooden shoe (242324).

Cox, R. E., Jr., Fort Worth, Tex.: 15 trial strikings of U.S. commemorative half dollars (242497); 92 U.S. half dollars and other historically significant pieces (244872, 246796).

Crandall, Dr. Richard B., Gainesville, Fla.: 9 fresh-water snails from California (244145).

Crawford, Dr. E. A., Jr., Due West, S.C.: 11 ostracods, types (237994).

Crawford, Mrs. Seth Turner, Boston, Mass.: (Through Col. Edward P. Ham-

ilton) 3 iron cannon balls from various battle sites given in memory of donor's husband, Seth Turner Crawford (247571).

Creel, Dr. Gordon C., Plainview, Tex.: Crabs, holotype and paratype, from Estelline, Tex. (242090).

Creighton, Dr. W. S., Ontario, Canada: 350 leaf-cutting ants from Mexico (246213, exchange).

Crely, Harold J., College Park, Md.: Water-cooling jar, 4 hand tools, wool-spinning wheel, 1810, a collection of miscellaneous spinning-wheel parts, and a marble mantel (243482, 246873).

Creole Petroleum Corp., Caracas, Venezuela: (Through Dr. R. M. Stainforth) 15 fossils from the Middle Ordovician of Venezuela (243491).

Crocker, Charles E., Newport, R.I.: Gold metal watch and medal associated with Cyrus Field (243638).

Crossman, Dr. E. J. (See Royal Ontario Museum)

Croston, John, Silver Spring, Md.: 2 cassiterites from Nam Yen, Mergui Province, Lower Burma (243563); varlamoffite from the Republic of the Congo (243683); 8 minerals from worldwide localities (244726, 246300).

Crowe, Sheriff Dorman A. (See Sheriff's Office)

Crown Agents, Washington, D.C.: (Through A. J. E. Davis) 591 miscellaneous mint foreign postage stamps (244488, 247645).

Cuatrecasas, Dr. José, Washington, D.C.: 2,960 phanerogams, 44 grasses, 84 ferns, and 112 cryptogams mostly from Colombia, collected by donor (243323).

Culberson, Dr. William L. (See Duke University)

Culbertson, Mary Jo and Colonel William S., Washington, D.C.: 24 pottery objects from the south coast of Peru (240709).

Culbertson, Colonel William S. (See Mary Jo Culbertson)

Cummings, D. Gregg (See General Motors Corp.)

Cummins Engine Co., Inc., Columbus, Ind.: (Through C. R. Boll) Cummins cutaway diesel engine (246798).

Cuomo, Mr. and Mrs. Anthony, Washington, D.C.: Collection of archeological material from Northern Iran (245300).

Curien, Hubert (See Université de Paris)

Currie, Richard R., Johannesburg, South Africa: 7 crabs, 2 hippas, and a mollusk (241631).

Currutt, Harold R. (See Bailey Meter Co.)

Curtis, Gene, Benton, Ky.: 2 gypsums, aragonite, calcite, and quartz from Illinois and Mexico (245904, exchange).

Curtis, Karl P., Gamboa, Canal Zone: Collection of archeological objects from the Canal Zone, North, South, and Central America (242900).

Curtze, Rear Adm. Charles A. (See Defense, U.S. Department of)

Cushing, Katherine A., Estate of: (Through Towne, Rubenstein & Foster) 12 items that belonged to Comdr. William B. Cushing (123656, bequest).

Cutress, Charles E., Washington, D.C.: Shrimp tail (239677).

Cutter, Albert, Santa Barbara, Calif.: Citrine from Brazil, 277.9 carats (243037).

Cuzon du Rest, R. P. (See Agricultural and Mechanical College of Texas)

Dague, England D., Decatur, Ill.: Model of Dague road scraper and leveler, 1879 (243133).

Dale, Barney (See Dale, Mr. and Mrs. William Norris)

Dale, William Norris, New York, N.Y.: Turkish silver lira commemorating the Revolution of May 27, 1960 (245322).

Dale, Mr. and Mrs. William Norris, and Dale, Barney, New York, N.Y.: 212 archeological items (247971).

Dalton, Mrs. Jos. F., Arlington, Va.: 2 pipe bowls and 2 stem fragments found on an island in Baltimore Harbor (242975).

Dalton, Neil (See Louisville Water Co.)

Danbury Centerless Grinding Company, Danbury, Conn.: (Through George P. Valluzzo) Heim centerless grinding machine, ca. 1918 (242042); Pratt &

Whitney measuring machine, ca. 1900 (244232).

Danch, R. E. (See Ajax Magnethermic Corp.)

Dandy, J. E. (See Great Britain, Government of)

Danner, H. E. (See Prologue to Freedom)

d'Arazien, Arthur, New York, N.Y.: 6 dye transfer prints (242399).

Darnell, Mr. and Mrs. Frederick W., Washington, D.C.: 2 Jacquard coverlets and 2 linen sheets, 19th century (247373).

Daspit, Rear Adm. Lawrence R. (See Defense, U.S. Department of)

Davidson, Edward, Ithaca, N.Y.: Echinoid from the Lower Cretaceous of Fort Worth, Tex. (245077).

Davis, A. J. E. (See Crown Agents)

Davis, Dr. C. J. (See Hawaii Department of Agriculture)

Davis, Clifford L., Springfield, Oreg.: 2 sea anemones (244187).

Davis, Dean H., Jr., Charleston, W. Va.: 35 mining tokens issued by companies operating in West Virginia (244659).

Davis, Dr. James R., Elizabeth City, N.C.: 2 caddis flies from North Carolina (242972). (See also North Carolina, State of)

Davis, Col. Kyle F., Falls Church, Va.: 2 North Korean Communist propaganda posters (244116).

Davis, S. Griffith, Washington, D.C.: Powder flask, ca. 1700 (247362).

Davis, Watson, Washington, D.C.: 2 radios, Scott console and Atwater Kent models (243022).

Davis, William E. (See Library of Congress)

Davison, Rev. Burton (See First Methodist Church)

Dawson, Charles E., Ocean Springs, Miss.: 301 marine mollusks, and 6 barnacles from the Persian Gulf, Red Sea, and South Carolina (220221, 220844); 227 crustaceans, a brittle star, and a sea anemone (232167, 239464). (See also Gulf Coast Research Laboratory)

Day, Honorable J. Edward, Washington, D.C.: Medal presented to donor in

1961 by the National Association of Postmasters of the U.S. (242709).

Day, Capt. V. E. (See Treasury, U.S. Department of the)

Daystrom, Incorporated, Newark, N.J.: (Through John Parker) 13 Weston exposure meters (245318).

Deacon, Dr. James E. (See Nevada, University of)

Dean, Charles V., Memphis, Tenn.: 19 items formerly the property of Capt. Louis A. Drouillard of the Lighthouse Service (242363).

Deaver, Dr. Chester F. (See Arizona State College)

de Avila-Pires, Dr. Fernando Dias (See Museu Nacional)

Debes, James H. and Jennie, Mount Vernon, Ohio, and **Debes, Victor,** Prospect Park, Pa.: (Through R. L. Boyer) 2 drawings of a Casco-class warship of the Civil War (246792).

Debes, Jennie (See Debes, James H.)

Debes, Victor (See Debes, James H.)

de Beughem, Mrs. Irone, Washington, D.C.: Man's coat of the 18th century (245050).

Decker, Gen. George H., Washington, D.C.: 5 Korean bronze weapons (247610).

Defenbaugh, Charles R., Ancona, Ill.: 156 miscellaneous U.S. precanceled stamps and covers (247868).

Defense, U.S. Department of: *Department of the Air Force:* Alligator lizard from Vandenberg AFB, Calif. (242159); (through Maj. Warren F. Pippin) 3 rats from Iwo Jima and Viet-Nam (242938, 244195); (through Lt. Dale W. Parrish and Capt. E. L. Massie) 140 land and fresh-water mollusks from Turkey (226307). *Air Force Museum:* (Through Lt. Col. Kimbrough S. Brown) 11 pieces of U.S. Air Force flying and survival equipment, Fiat 8 mm. machine gun, and a Lewis ammunition container (245195). *Department of the Army:* Chinese Communist Forces' copy of a Soviet submachine gun (243898); 76 mm. HVAP antitank shell, cartridge cylinder, and wooden box (244222); 7 North Korean uniforms

(245315); 3 machine guns and barrel with bipod (245462); U.S. Army combat helmet (247953); (through Col. Hinton J. Baker) collection of reptiles from Malaya (243524); (through Bernice P. Bishop Museum) millipede, paratype, from Malaya (246214); (through Col. K. C. Emerson) 800 slides of fleas and lice from Malaya and Utah (246216, 246306); (through Lt. Col. Joseph E. Webb, Jr.) 86 miscellaneous insects from Canada (245575). *Aberdeen Proving Grounds*: 75 mm. recoilless rifle, and 88 mm. German antiaircraft shell casing (244951). *Army Medical Research Units*: (Through Lt. Col. Theodore E. Blakeslee) 2 mosquitoes from Arizona (244749, 244750). *Army Medical Laboratory*: (Through Capt. Laurence Johnston) oligochaete worm (244891). *Army Ordnance*: 2 M-48, SQ and D fuses for U.S. 75 mm. projectile, and 1 Mark X fragmentation "Cooper" aerial bomb casing (243348). *Army Research Institute of Environmental Medicine*: (Through Dr. Russell W. Newman) file of 50,000 somatotype photographic negatives from U.S. Army body-build survey of 1945-46 (246776). *Army Weapons Command*: U.S. .30 caliber rifle (247767). *82nd Airborne Division*: 100 U.S. Army uniforms and equipment (247765). *Environmental Health Branch*: (Through Maj. V. J. Tipton) 14 fleas and mites, holotypes and allotypes, from Panama (244862). *Institute of Heraldry*: (Through Col. Harry D. Temple) 597 U.S. and foreign medals, ribbons and badges (247955). *Medical Research Laboratory*: (Through Maj. Dale E. Wykoff) 100 fresh-water mollusks from Thailand (245525). *Office of the Chief of Engineers*: (Through Col. W. C. Gribble, Jr.) model of the original land-based military nuclear power plant, SM-1 (247370). *Office of the Chief of Ordnance*: (Through R. D. Mentzer) 7 miscellaneous parts of electronic computers (242457). *Ordnance Technical Intelligence Agency*: Brass shell and projectile and Soviet PPSH M1914 model magazine (245314, 247017). *Recruiting Main Station, Detroit*: 32

U.S. Army WAC uniforms and accessories (247169). *Research and Development Command*: (Through Col. Robert Traub) mouse from Costa Rica (242486); 77 lice and fleas, types, from worldwide localities (246208, 246210); 29 vials of miscellaneous beetles from Africa, Pakistan, and Thailand (246308). *64th Engineer Battalion*: Archeological collection from a crater in Libya (245303). *Women's Army Corps Center*: (Through Lt. Col. Mary C. Lane) Women's Army Corps officer's service jacket, skirt, and 3 pairs of shoes (244225).

Department of the Navy: (Through Rear Adm. Lawrence R. Daspit) type 4 U.S. Naval periscope (247870); (through Eduardo Magtoto and Rear Adm. Charles A. Curtze) Parsons steam turbogenerator, 1905 (243961). *Hydrographic Office*: (Through James A. Bruce) 12 marine invertebrates (243369). *Marine Corps Museum*: 23 weapons, accessories, and rations from the Marine Corps Museum (243351). *Naval Air Station*: 3 cameras and a photo flash cartridge ejector (246519, 246520); contact printer (247796); Kodak motion picture camera and a Weston densitometer (247877); 5 Fairchild lens cone aerial cameras (247878). *Naval Medical Research Units*: (Through Bernice P. Bishop Museum and Prof. D. S. Rabor) 71 bird skeletons and 14 skins (247928); (through Chicago Natural History Museum) 395 mammals from Egypt and Sudan (245933); (through Dr. Robert E. Kuntz) 9 shrimps and a stomatopod (237512); 153 lots and 51 vials of lice and 52 bat ticks from Formosa (240756, 246212, 247211); 995 bird skins and alcoholics from Formosa (244219, 247718); 750 slides of bird lice (246307); 14 miscellaneous insects from North Borneo and 1,680 mammals from Formosa (247012, 247860). *Naval Shipyard*: X-ray stereoscope (247369). *Naval Supply Center*: 2 Fairchild aircraft cameras (246521, 247785). *Office of Chief of Naval Operations*: (Through Rear Adm. E. M. Eller) 411 miscel-

laneous U.S. Naval uniforms and insignia (247871).

Degen, Joe I. (See Degen Pipe & Supply Co.)

Degen Pipe & Supply Co., Tulsa, Okla.: (Through Joe I. Degen) Pyle-National steam-driven generator (246870).

Degener, Dr. Otto, Waialua, Oahu, Hawaii: 4 isopods, 201 phanerogams, and 35 ferns (240355, 247751).

Deignan, Herbert G., Paris, France: 43 weapons from Borneo and Thailand (242340).

De Kroyft-Metz and Co., Peoria, Ill.: (Through Lud Haluska) prescription book of 1919-26 (243488).

Delaney, Patrick J., Porto Alegre, Brazil: 455 marine, land and freshwater mollusks from Surinam (208745).

de la Torre, Dr. Alfredo, Habana, Cuba: 410 marine mollusks from Cuba (247945, exchange).

Delaware County Health Department, Folcroft, Pa.: (Through Alice T. Doyle) phanerogam (246505).

Delco, Dr. Exalton A., Jr. (See Huston-Tillotson College)

Delhi, University of, Delhi, India: (Through Dr. T. Seshadri) 17 lichens from India (242724).

Del Noce, Aldo, New York, N.Y.: Twenty-five percent of a block of 4 2-cent "Lake Shade" Panama Pacific Exposition Issue, 1913 (245181).

Dell, Dr. R. K. (See Dominion Museum)

DeLue, Donald, New York, N.Y.: (Through Mrs. Virginia Pollack) plaster statue of George Washington (245923).

Dennis, Mr. and Mrs. Robert, Williamsburg, Va.: 469 items of stereoscopic equipment (245424).

Derby, Mrs. Richard, Long Island, N.Y.: 1907 high relief Saint-Gaudens 20-dollar gold piece (236191).

Desautels, Paul E., Washington, D.C.: Bornite, San Juan Co., Utah (242674).

de Sibour, Mrs. Robinson, Washington, D.C.: Paperweight made from oak from H.M.S. *Victory* and U.S. flag said to have been taken to the North

Pole by Admiral R. E. Byrd, U.S.N. (243581).

De Souza Neiva, Getulio, Santos, São Paulo, Brazil: 10 shrimps (242214).

Deutsche Bundesbank, Frankfurt, Germany: 2 50-Mark notes issued by the German Bundesbank (243005).

Deutsches Museum (See Gesellschaft für Linde's Eismaschinen AG)

deVeer, William H., East Williston, L.I., N.Y.: Kodak folding camera and 2 lenses (244388).

de Viedma, Manuel G., Madrid, Spain: 12 pine weevils from Europe (243513, exchange).

DeWitt, Hugh H. (See Stanford University)

Dexter, Dr. Ralph W. (See Kent State University)

Dexter, Prof. Richard N. (See Wisconsin, University of)

De Young, S. Sydney, Boston, Mass.: Pear-shaped pink diamond from Tanganyika (241052).

Dick, Mrs. Myvanwy M. (See Harvard University)

Dickson, Dr. Robert C., Riverside, Calif.: 3 slides of insects from Taiwan and U.S. (246312).

Dickson, Stewart, Washington, D.C.: Boy's velvet suit, early 20th century, and 2 quilts, 19th century (246047).

Diehl, Charles A., Ridgewood, N.J.: Mortar shell recovered from an underwater location off the south shore of Lake George, New York (243193).

Dietrich, Dr. R. V., Blacksburg, Va.: Marcasite from Lone Jack Quarry, Va. (245771).

Dillard, Comdr. T. M., Washington, D.C.: 2 marine mollusks from West Australia (243344).

District Bank Limited, London, England: (Through State, U.S. Department of) \$500 bond issued by the Confederate States of America in 1864 (245164).

District of Columbia, Government of: *Public Schools:* (Through Stephen Hopkins) Yates governor, 1876, and Frank steam engine, 1870 (245986).

Dix, Dr. Ralph (See Saskatchewan, University of)

Dodge, Dr. Harold R., Pullman, Wash.: 9 flies from Georgia (247761).

Doig, Mrs. Arthur H., Estate of: (Through Mrs. Van Wyck Loomis) fireplace screen, pair of andirons, and a bas-relief of Abraham Lincoln (246530).

Dominion Museum, Wellington, New Zealand: (Through Dr. R. K. Dell) 350 marine gastropods from New Zealand (244890).

Domjan, Joseph, River Edge, N.J.: 3 color woodcuts (242931).

Domke, Dr. Walter (See Botanischer Garten und Museum)

Domrow, Dr. Richard, Brisbane, Queensland, Australia: 5 slides of mites from Australia, Java, and Tasmania (246049). (See also Australia, Government of)

Domrow, Robert, Kuala Lumpur, Malaya: 14 slides of ticks and mites from Asia (244252).

Donald, Barbara, Washington, D.C.: Fan, apron, and 2 pockets which belonged to Dolley Madison, and a pair of breeches which belonged to her brother-in-law (245981).

Donecker, John C. (See Girard College)

Donoho, Chris L., Bethesda, Md.: Pen drawing by Thomas Donoho, 1893 (247171).

Donovan, Mrs. Ruth, and Kynaston, Mrs. Margaret (addresses unknown): 14 souvenir spoons, 12 silver forks, 10 coins, 4 medals, 3 fans, and an album of Civil War pictures (243539).

Dose, Capt. Robert G., Selena Beach, Calif.: Flight suit and helmet, 1954-55 (246407).

Doty, Prof. Maxwell S., Honolulu, Hawaii: 29 marine algae from Hawaii (247002).

Doucette, Charles F., Sumner, Wash.: 320 miscellaneous Coleoptera larvae and a leafhopper (246515).

Douglass, Mrs. A. C. (See Mayer, Mrs. Eugene S.)

Dow, Melvin C., Cottage Valley, N.Y.: (Through Early American Industries Assoc.) 7 early hand tools (247529).

Dowden, Dr. Philip B. (See Agriculture, U.S. Department of)

Downey, Dr. John C., Carbondale, Ill.: 33 scarab beetles from the U.S. (246865).

Doyle, Alice T. (See Delaware County Health Department)

Doyle, Mortimer B. (See National Lumber Manufacturers Association)

Dragovich, Dr. Alexander (See Interior, U.S. Department of the)

Drake, Dr. Carl J., Washington, D.C.: 64 miscellaneous U.S. and foreign covers and postal stationery (245880, 247655).

Dresser Industries, Inc., Dallas, Tex.: (Through Jack Bache, Jr.) 3 swab cups and a sketch of the product in oil-well tubing (247800); (through Ott Hammer) power elements for turbodrill and transparencies illustrating turbodrill concept (247981).

Driesbach, Dr. R. R., Midland, Mich.: 33 insects from Mexico and Michigan (243864).

DuBar, Dr. Jules R. (See Houston, University of)

Ducommun, J. C. (See American Oil Company)

Duffy, Raymond, and Schluter, D. W., Quincy, Mass.: Rivet attaching machine (243874).

Dugand, Prof. Armando, Barranquilla, Colombia: 227 phanerogams and 32 grasses from Colombia (243830).

Duggan, Mrs. W. S., Everett, Wash.: 19 marine mollusks from off the coast of Washington and Vancouver Island, British Columbia (242018).

Duke, Dr. James A. (See Missouri Botanical Garden)

Duke University, Durham, N.C.: (Through Dr. Joseph R. Bailey) 57 crayfishes (245329); (through Mrs. Shirlee S. Cavaliere) 845 microscope slides of pollen from African plants (247465, exchange); (through Dr. William L. Culberson) 30 lichens (246293, exchange); (through Dr. D. A. Livingstone) 81 slides of pollen (242690, exchange).

Dulin, Mrs. William E., Alexandria, Va.: 72 costume and textile specimens from the 19th century (242776).

Dumbleton, L. J., Christchurch, New Zealand: 3 mosquitoes, paratype, from New Zealand (244746).

Duncan, Helen (See Interior, U.S. Department of the)

Duncan, Lillian (deceased): (Through Robert C. Lowe) small treadle model Willcox and Gibbs sewing machine, late 1870's, and a Mason and Hamlin reed organ (243150).

Dunkle, Dr. David (See Capen, Charles F.)

Dunlap, Mr. and Mrs. H. B., Ilwaco, Wash.: Quartz from Washington (243978).

Dunman, Mr. and Mrs. Tabor E., Springfield, Va.: Mother-of-pearl card case, ca. 1860 (243609).

Dunn, Mrs. Arthur Wallace, Washington, D.C.: 15 souvenir spoons, a cigarette case, napkin ring, clock case, sewing case, and a bonbon server (243466); 8 accessories of dress and 3 seals of the 19th and 20th centuries (244559); 21 commemorative medals and badges (245606).

Dunn, Comdr. Arthur Wallace, Jr., Washington, D.C.: 19th-century quilt bearing political campaign ribbons, 10 unpublished manuscripts, newspaper clippings, and 2 autographed letters, given in memory of donor's father, Arthur Wallace Dunn (245700).

Dunn, Mrs. Harvey, Tenafly, N.J.: (Through Robert K. Dunn) artist sketch box, 8 water colors, and 6 rolls of sketches from World War I (229290).

Dunn, Robert K. (See Dunn, Mrs. Harvey)

Dunne, Dr. Anna Bartsch, Washington, D.C.: Skirt, scarf, and silver bowl from Laos and a cup and saucer from Germany (245068).

duPont, Willis H., Wilmington, Del.: 740 silver and copper coins struck during the reign of Czar Peter III and Catherine II up to 1774, and 38 silver and bronze medals (245705).

Durell, Edward, Columbus, Ohio:

(Through Early American Industries Assoc.) 19th-century tongue plane and grooving plane (247523).

Durham, Anna Sinton, Columbia, S.C.: 4 examples of costume, a bed-spread and curtains, ca. 1806 (246315).

Durham, J. Wyatt (See California, University of)

DuRocher, Mrs. Linus, Poughkeepsie, N.Y.: Woman's dress of 1890 (244127).

Dwight, Frances Howe (See Dwight, Laura Emott)

Dwight, Laura Emott and Frances Howe, Boston, Mass.: Linen damask tablecloth (247120).

E. J. Codd Co., Baltimore, Md.: (Through Ray W. Kauffman) early monkey wrench and linear calipers (248002).

E. Leitz, Inc., New York, N.Y.: (Through Emil G. Keller) microscope, 1962 model, cut away to demonstrate inner optical array (245710); (through William H. Mann) 2 cameras and enlarger (246412).

Early American Industries Assoc. (See Bassett, Preston R., Brendel, Louis H., Cooke, Lawrence S., Cooper, Miner J., Dow, Melvin C., Durell, Edward, Farnham, Alex, Gardner, Mr. and Mrs. Rockwell, Gerwig, John R., Jr., Link, Joseph, Palmer, Donald B., Rake, Joseph, Sabin, Dr. Fred C., Way, Elwood J., Weiland, Erwin O., Wetzel, Wallace P., Wildung, Frank, Woloson, Peter)

Eastland, E. LeRoy, Moline, Ill.: Print of photograph of President Ulysses S. Grant (245664).

Eastman Kodak Co., Rochester, N.Y.: (Through G. W. Mentch) 6 cameras (246517). (See also Faber, John)

Eastman Oil Well Survey Co., Denver, Colo.: (Through P. D. Arterburn) models and photographs illustrating pioneer work of the donor in controlled directional drilling (247479).

Eastop, Dr. V. F., London, England: 150 white flies from Africa (243512, exchange). (See also Great Britain, Government of)

Eberlein, G. Donald (See Interior, U.S. Department of the)

Eberlein, Harold Donaldson, Philadelphia, Pa.: Box of Easter eggs made in 1870-80 (244656).

Echols, Elsie Dinsmore (See Avery, Mrs. Etta Halsted Echols)

Eckert, H. W., Florence, Colo.: Moresnetite from Vielle Montague, Moresnet, Belgium (243326).

Edgerton, Germeshausen and Grier, Inc., Boston Mass.: (Through Dr. Harold E. Edgerton) 8 atomic bomb explosion photographs, repatronic camera, and fiducial marker (246413).

Edgerton, Dr. Harold E. (See Edgerton, Germeshausen and Grier, Inc., and Massachusetts Institute of Technology)

Edmund, E. W. (See M & E Marine Supply Company)

Edmunds, Dr. George F., Jr., Salt Lake City, Utah: 165 caddis-fly larvae from western U.S. (243637).

Edward Ingraham Co., Bristol, Conn.: (Through Edward Ingraham) spindle pinion turning machine and a set of dies (247983).

Edwards, Deane (See Hymn Society of America)

Edwards, Mrs. Julia Bell, Washington, D.C.: Umbrella swift, ca. 1825 and a silver eagle escutcheon from a rifle stock (242702, 243347).

Edwards, Mrs. Llewellyn N., Glen Echo, Md.: Engraving of Llewellyn Nathaniel Edwards and a copper engraving of bridge at St. Maurice, London, 1829 (243484, 245983).

Ehrbar, John H., Wickliffe, Ohio: President James A. Garfield funeral badge worn by donor's grandfather (243467).

Ehrenberg, Mrs. Berthold, New York, N.Y.: 51 miscellaneous U.S. departmental stamps (245806).

Ehrlich, Bronette, Washington, D.C.: 10 examples of costume material, 1902 (243178).

Ehrmann, Martin L., Beverly Hills, Calif.: Brazilianite from Governador Valadares, Brazil (244933, exchange); miscellaneous minerals from South-West Africa (245308); willemite and cuprocalcite from Tsumeb, South-West Africa (245450); 6 minerals from

worldwide localities (246658, exchange).

Eichholz, Duane W. (See Gettysburg Numismatic Society)

Einhorn, Nathan R. (See Library of Congress)

El-Chichini, Saad (See United Arab Republic, Government of)

Elderkin, Mrs. Kate McKnight (deceased): (Through Janet Elderkin Azoni) width of an Algerian embroidered curtain, 18th century (243358).

Elias, Dr. Maxim K., Norman, Okla.: 35 brachiopods from the Mississippian of England (239175).

Eller, Rear Adm. E. M. (See Defense, U.S. Department of)

Eller, Tom, Cheverly, Md.: 5 crayfishes (243301).

Ellicott, Glenn (See Bunger, Mrs. Bessie Ellicott)

Ellicott, Myron (See Bunger, Mrs. Bessie Ellicott)

Emerson, Dr. A. E., Chicago, Ill.: 151 termites from India (243456).

Emerson, Col. K. C., Washington, D.C.: 100 slides and 100 specimens of lice from Iraq and Korea (247727). (See also Defense, U.S. Department of)

Emery, J. K., Watertown, Mass.: Early folding rule (248000).

Engelhardt, Dr. Donald W. (See Pan American Petroleum Corp.)

Engelhardt, Dr. Wolfgang, Munich, Germany: 25 centipedes from the Old World (244936, exchange).

Ensign, E. W., Orlando, Fla.: Cultivated fern (246855).

Eovaldi, Mrs. Frances (See Galli, Mr. and Mrs. Angelo)

Erdtman, Prof. Gunnar (See Palynological Laboratory)

Escuela Agrícola Panamericana, Tegucigalpa, Honduras: (Through Dr. Antonio Molina) 89 phanerogams, 10 grasses, and 11 ferns from Central America (242580, exchange); 11 ferns (244672).

Estación Experimental Agrícola La Molina, Lima, Peru: (Through Dr. J. E. Simon) 100 fruit flies from Peru (244596).

- Estonian Philatelic Society**, New York, N.Y.: (Through A. E. Pensa) 50 mint stamps of Estonia (241960).
- Evans, Asa Louis**, Washington, D.C.: Handled vessel from Greece (247612).
- Evans, Mrs. Elaine** (See Pyramid Rubber Co.)
- Evans, Dr. Howard E.**, Cambridge, Mass.: Wasp from South America (247014, exchange). (See also Harvard University)
- Evans, William P.**, Waterloo, Iowa: Oliver typewriter (248055).
- Everglades Aquatic Nurseries, Inc.**, Tampa, Fla.: (Through Albert Greenberg) 123 fresh-water fishes, a crab, and a salamander from Costa Rica (244978).
- Ewart, Prof. W. H.**, Riverside, Calif.: 2 vials of thrips from California and Texas (247567).
- Faber, John**, Mountain Lakes, N.J., and **Eastman Kodak Co.**, Rochester, N.Y.: (Through A. E. Chesterman) 28 mounted photographs comprising exhibit, "Great Moments in News Photography," with text by John Faber, and portraits of photographer (244480).
- Facultad de Agronomía**, Palmira, Valle, Colombia: (Through Dr. Alvaro Figueroa E.) planarian (247388).
- Facultad de Ciencias Exactas y Naturales**, Buenos Aires, Argentina: (Through Dr. Enrique E. Boschi) paratype of a crab (244451).
- Faircloth, Prof. Wayne R.** (See Valdosta State College)
- Fanning Island Plantations Ltd.**, Fanning Island, C. P., Gilbert, and Ellice Islands: (Through P. F. D. Palmer) pound note issued in 1944 to pay native labor wages (242711).
- Farnham, Alex.**, Stockton, N.J.: (Through Early American Industries Assoc.) 19th-century auger (247524).
- Farr, Dr. Thomas H.**, Kingston, Jamaica: 2,010 miscellaneous insects from Guatemala and Jamaica, West Indies (185320, 244946). (See also Institute of Jamaica)
- Farrell, Dr. Charles E.** (See Vanderbilt University)
- Feeney, Walter**, Irvington, N.J.: 44 used penalty envelopes from various U.S. Government agencies (243587).
- Feick, John R.** (See St. Anselm's College)
- Feinstein, Bernard** (See Health, Education and Welfare, U.S. Department of)
- Fell, Dr. H. Barraclough** (See Victoria University of Wellington)
- Ferguson, Belle** (See Bailey, Helen M.)
- Ferguson, Dr. Edward, Jr.**, Jefferson City, Mo.: 13 ostracods, including 3 slides, holotype and paratypes (230287, 246328).
- Ferreira, Dr. Ramón** (See Museo de Historia Natural "Javier Prado")
- Ferrière, Dr. Ch.**, Geneva, Switzerland: 3 chalcid flies from Europe (246458).
- Feyling, Paul A.**, Brunswick, Maine: 37 fresh-water and marine fishes and 8 mollusks from Honduras (242236).
- Field, Dr. Henry**, Miami, Fla.: 76 land snails from Florida (242467).
- Fields, Mrs. Frederica H.**, Brooklyn, N.Y.: Stoneware bowl by Alexander Giampietro (244874).
- Figueroa E., Dr. Alvaro** (See Facultad de Agronomía)
- Fingerman, Dr. Milton** (See Tulane University)
- Finks, Dr. Robert M.** (See Lumnitz, Janice S.)
- Finlay, C. J.**, Wilmington, Del.: 11 marine mollusks from the Lesser Antilles and a coral from Cuba (227548).
- Finley, Hon. David E.**, Washington, D.C.: Portraits of President Franklin D. Roosevelt, Justices Harlan F. Stone, and William Douglas, and Honorable James F. Byrnes, by Oskar Stoessel (242293-2).
- Finucane, James** (See Committee for Return of Confiscated German and Japanese Property)
- Finucane, John H.** (See Interior, U.S. Department of the)
- First Methodist Church**, Elmhurst, N.Y.: (Through Rev. Burton Davison and Hubert A. Howson) 20 books formerly in the Comegys library (244871).

Fischer, Dr. Roland L., East Lansing, Mich.: 168 caddis flies from North America (246330, 246864).

Fitch, John E. (See California, State of)

Fleming, Richard Bland Lee (deceased): (Through Roberta D. Fleming) belt and pair of 1872 regulation U.S. shoulder knots (245669).

Fleming, Roberta D. (See Fleming, Richard Bland Lee)

Fleminger, Dr. Abraham (See Scripps Institution of Oceanography)

Flint, Dr. Oliver S., Jr., Washington, D.C.: 1,192 caddis flies from North America (247938).

Flinter, Dr. B. H. (Malaya, Federation of)

Florence Crittenton Bazaar, Washington, D.C.: (Through Mrs. P. H. Mathews) 2 early tapestries (247988).

Florida, State of: *Game and Fresh Water Fish Commission:* (Through Frank J. Ligas) 2 alligator leeches, fresh-water mollusk from Fort Lauderdale, Fla., 45 ostracodes, and 4 lots of ticks and lice (242111, 246902). *State Board of Conservation:* (Through Dr. Robert F. Hutton) 2 parasitic isopods and 3 brackish-water clams from the Peace River estuary of Florida (233729, 242162); (through Martin Moe) 2,905 fishes from Florida (247253). *State Board of Health:* (Through Mrs. Elisabeth C. Beck) 5 holotypes of midges (243455). *State Department of Agriculture:* 50 amphipods (241854). *State Plant Board:* (Through Dr. Howard V. Weems, Jr.) wasp, paratype (247756).

Florida, University of, Gainesville, Fla.: (Through Dr. H. K. Brooks) 2 hydroids (233088).

Florida State University, Tallahassee, Fla.: (Through Meredith Jones) 83 mollusks from Florida (223899); (through Horace Loftin and Dr. Ralph W. Yerger) 10,000 fresh-water fishes from the Panama Canal Zone (233631, exchange).

Foehrenbach, Jack (See New York, State of)

Folch, Joaquin, Barcelona, Spain: 6

minerals from Spain (247545, exchange).

Foltz, Prof. V. D. (See Interfraternity Council)

Foote, Ben A., Moscow, Idaho: 13 swale flies from North America (243571).

Ford, Dr. Arthur B. (See Interior, U.S. Department of the)

Ford, Dr. Hedwig Geiger, Ames, Iowa: 5 slides of nasal mites, including holotypes, from North America (242490).

Ford, James J. (See Hartford Machine Screw Co.)

Ford, John J., Jr., New York, N.Y.: 245 medals, plaquettes, and tokens, mostly American, 19th century (245615).

Forest Products Research Institute, College, Laguna, Philippines: (Through Dr. Francisco N. Tamolang) 105 wood specimens from the Philippines (236671, exchange).

Forest Products Research Laboratory, Princes Risborough, Aylesbury, Bucks, England: (Through E. W. J. Phillips) 71 wood specimens (242967, exchange).

Fosberg, Dr. F. R., Falls Church, Va.: Cultivated fern (245768). (See also Interior, U.S. Department of the)

Fowler, H. C. (See Interior, U.S. Department of the)

Fox, John F., Stuart, Fla.: 2 crabs (247048).

Frankel, Dr. J. J., Kensington, N.S.W., Australia: 5 echinoids from the late Tertiary of Zululand (245080).

Franklin, Mrs. Esther Cole (See Burt, Mrs. Erika)

Franssen, Dr. C., Binnehave, Wageningen, Netherlands: Slide of thrips from the Netherlands (245199, exchange).

Frazier, Arthur H., Madison, Wis.: 3 replicas of 18th-century ships logs (243107).

Frazier, Mr. and Mrs. C. L., Berkeley, Calif.: 60 minerals from Germany, Norway, and Portugal (238815, exchange).

Freeman, Harley L., Ormond Beach, Fla.: 8 brackish-water clams from Florida (243645).

- French, Dr. Frank E.** (See Iowa State University of Science and Technology)
- Frenette, Brother**, Washington, D.C.: 112 marine mollusks from the Seychelles Islands (245460).
- Frick, Dr. Kenneth E.**, Berkeley, Calif.: 50 leafminers from North, Central, and South America (247354).
- Frick Co.**, Waynesboro, Pa.: (Through Terry Mitchell) detailed drawing of a fence post, 1895 (245466); 3 wooden chests of folded papers, letters, etc. regarding the Frick engine, agricultural machinery, and refrigeration business (246881).
- Friedberg, Prof. S. A.** (See Carnegie Institute of Technology)
- Friedmann, Karl R.** (See Girard College)
- Fristoe, Mrs. Edward B.**, Washington, D.C.: Boy's velveteen suit, 1870 (246564).
- Frolander, Dr. Herbert F.** (See Oregon State University)
- Fronde, Prof. Clifford** (See Harvard University)
- Frost, Dr. S. W.**, University Park, Pa.: 4 scarab beetles from Florida and a moth from North America (242257, 244477).
- Frutche, F. B.**, San Francisco, Calif.: 12 mammals from Saigon, Viet-Nam (245051).
- Fuchs, Dr. Hans Peter**, Wassenaar Z. H., The Netherlands: 159 photographs and 72 slides of fern spores (243887, 246111).
- Fudge, William**, Bethesda, Md.: Planing chip (244233).
- Fuld, Dr. George** (See Token and Medal Society)
- Fuller and d'Albert, Inc.**, Washington, D.C.: (Through John F. Mennehan) 2 cameras and a Zeiss Tessar projection lens (243595).
- Furtado, Dr. Jose I.**, Kuala Lumpur, Malaya: 7 parasitic helminth worms from Malaya (246938).
- G. Leblanc Corp.**, Kenosha, Wis.: (Through Vito Pascucci) 3 Leblanc clarinets and basset horn, and a Noblet alto clarinet (243869).
- Galindo V., Dr. Pedro**, Balboa Heights, Canal Zone: 16 mosquitoes from Panama, including holotypes, allotypes, and a paratype (243440, 247729).
- Gallaher, Dr. George L.**, Harlingen, Tex.: Pair of World War I aviator's breeches (245505).
- Gallardo, Ariel**, Concepcion, Chile: 25 isopods (230795).
- Galli, Mr. and Mrs. Angelo** (deceased): (Through St. Peter, Mrs. Mary, Manfredini, Mrs. Anna, Eovaldi, Mrs. Frances, Yule, Mrs. Josephine, and Marsden, Mrs. Linda) 2 knitted silk mantillas of 1910 (244955).
- Gallin, Maj. Martin**, Bronx, N.Y.: Pistol (242994).
- Gallitelli, Prof. Paolo** (See Bologna, University of)
- Garber, Paul E.** (See Ramsey, Mrs. DeWitt C.)
- Gardner, M. R.**, Pittsburgh, Pa.: 49 mining-store tokens and cards (242494, 243007).
- Gardner, Mr. and Mrs. Rockwell**, Stamford, Conn.: (Through Early American Industries Assoc.) 19th-century slick (247527).
- Gares, W. Mark**, Hampton, Va.: 6 small mammals from Gloucester Co., Va. (243434).
- Gargiulo, Joseph A., Estate of:** (Through National Savings and Trust Co.) bracelet of 8 mounted scarabs (233653).
- Garrett, C.**, Horseshoe Bay, Canada: 6,543 miscellaneous insects from British Columbia (245152).
- Garrett, Dr. F. O., Jr.**, North Little Rock, Ark.: Louisiana stamp of 1962, perforation "freak or error" (242713).
- Garrick, Dr. John A. F.**, Wellington, New Zealand: Sea star (241463).
- Garvan, Dr. Anthony N. B.**, Spring House, Pa.: 4 medals pertaining to steam engines (247881, exchange).
- Garvan, Mrs. Francis P.**, New York, N.Y.: Mahogany clock and tilt-top tripod table, ca. 1760-70, engraving, 1801, and portrait of a cleric, early 18th century (241853).
- Gasch, Mr. and Mrs. Oliver**, Washington, D.C.: 2 pottery vessels from Italy (245302).

Gates, Dr. G. E., Bangor, Maine: 56 earthworms (240649).

Gates, Mrs. Galen R., Greene, Iowa: U.S. Army Air Force officer's uniform and insignia given in memory of donor's son, 2d Lt. Claire Eugene Gates (243423).

Gatley, William Patrick, Mayo, Md.: 19th-century bench woodworking vise (248001).

Gehlbach, Dr. Frederick R., Ann Arbor, Mich.: 33 reptiles and amphibians from Carlsbad Caverns National Park (246840).

General Minerals, Houston, Tex.: (Through Warren R. Jones) 4 minerals from Wyoming and Mexico (247625).

General Motors Corp., La Grange, Ill.: (Through D. Gregg Cummings) model of a 1949 diesel-electric locomotive and a 1934 Zephyr engine (247856).

General Services Administration, Washington, D.C.: Man's wristwatch (244761); Chinese vase and stand (246394).

Geological Museum, Cairo, Egypt: *Geological Survey and Mineral Research Department*: (Through Dr. Osman Moharrum) 19 minerals from Egypt (242438, exchange); (through Dr. Osman Moharram Mahgoub) specimens of the Nakhla, Egypt, meteorite (243239, exchange).

Geoloogia Instituut, Tallinn, U.S.S.R.: (Through Dr. Madis Rubel) 16 brachiopods from the Ordovician of Estonia (245997, exchange).

George, Theodore A., Arlington, Va.: 5,000 postage stamps, mostly used, of the British Commonwealth of Nations (245980).

Georgetown University, Washington, D.C.: (Through Father Francis J. Heyden) anscochrome photo plate of first order of solar spectrum and a chronograph (245218, 248006).

Georgia, University of, Athens, Ga.: (Through Dr. Bernard S. Martof) 338 salamanders from Georgia, North Carolina, and Tennessee (245013).

Gerstman, Ewald, Franklin, N.J.: Norbergite from New Jersey (243846).

Gerwig, John R., Jr., Baltimore, Md.: (Through Early American Industries Assoc.) 5 early hand tools (247516).

Géry, Dr. Jacques R., Banyuls-sur-Mer, Pyrénées-Orientales, France: Fish, paratype, from Rio Purus, Amazonas, Brazil (246436).

Gesellschaft für Linde's Eismaschinen AG, Höllriegelskreuth bei München, Germany: (Through Deutsches Museum) model of Dr. C. G. P. Linde's ammonia-compression ice machine, 1876 (243395).

Gettysburg Numismatic Society, Gettysburg, Pa.: (Through Duane W. Eichholz) battle of Gettysburg commemorative medal (242372).

Ghani, Dr. M. A., Rawalpindi, Pakistan: 2 ants and 2 flies (243342).

Gilbert, Bil, Fairfield, Pa.: 29 mammals from Chiapas, Mexico (247163).

Gillis, William, East Lansing, Mich.: 7 phanerogams and 12 grasses (245526).

Gines, Brother (See Sociedad de Ciencias Naturales La Salle)

Girard College, Philadelphia, Pa.: (Through Karl R. Friedmann and John C. Donecker) 2 books by Benjamin B. Comegys (247866).

Glaser, Mrs. Myron, Bethesda, Md.: 6 examples of 19th-century women's clothing (242518).

Glasgow, University of, Glasgow, Scotland: (Through Peter J. Miller) 6 fishes from Europe (243853).

Glasser, Dr. Otto, Cleveland, Ohio: X-ray condenser dosimeter (244962).

Glossbrenner, A. S. (See Continental-Emsco Company)

Glover, Charles C., Jr., Washington, D.C.: 8 U.S. and 4 French gold coins (240870).

Glover, R. C. (See Baker Oil Tools, Inc.)

Glover, Tommy, Vanadium, N. Mex.: 3 cuprite specimens from Santa Rita Mine, N. Mex. (242754).

Goff, F. W. (address unknown): (Through Sidney D. Haas) 57 distinctive insignia collected by donor (243346).

Goldstein, Abraham, Brooklyn, N.Y.: Head of President Abraham Lincoln

made from macerated U.S. currency (243472).

Gonzalez-Mas, A., Mayaguez, Puerto Rico: 261 phanerogams from Puerto Rico collected by donor (244336).

Goodbody, Dr. Ivan M. (See University College of the West Indies)

Gooding, Dr. R. U. (See Boston University)

Gordon, Dr. MacKenzie, Jr. (See Interior, U.S. Department of the)

Gorgas Memorial Laboratory, Panama, Republic of Panama: Bird in alcohol and 18 bird skins (242969).

Gornyi Museum, Leningrad, U.S.S.R.: (Through Dr. V. D. Kolomensky) 18 miscellaneous minerals (246116, exchange).

Gosline, Dr. William, Honolulu, Hawaii: (Through Dr. Daniel M. Cohen) fish (247407).

Goucher College, Baltimore, Md.: 35 phanerogams (229115).

Government Printing Office, U.S., Washington, D.C.: (Through James L. Harrison) 2 Crocker-Wheeler motors (247801).

Gozmány, Dr. L., Budapest, Hungary: 33 small moths from Europe (247156, exchange).

Graham, Theresa A., Yucaipa, Calif.: Woman's Navy yeoman uniform, World War I, worn by donor (239062).

Grant, George C. (See Virginia, State of)

Grant, Dr. J. A. (See Great Britain, Government of)

Graves, Dr. Arthur H., Wallingford, Conn.: 3 phanerogams (245685).

Great Britain, Government of: British Museum (Natural History): 83 phanerogams and 7 grasses (243882, 244938, 247460, exchanges); (through J. E. Dandy) 6 photographs of ferns (242351, exchange); (through Dr. V. F. Eastop) 44 plant lice and 22 aphids from Africa and England (243866, 244929); (through Dr. J. A. Grant) 4 lacebugs from China (247350, exchange); (through Dr. W. J. Rees) 3 fragments of gorgonian, including type (229184); (through Dr. J. D. H. Wiseman) 1 slide of Foraminifera (242683,

exchange). *General Post Office*: 56 postage stamps of Great Britain (244485). *Royal Botanic Gardens*: 202 grasses from Africa (243562, exchange).

Greco, Simon, Ridgefield, Conn.: 2 paintings, *Celtic Farmstead* and *Celtic Blacksmith Shop* by donor (245631).

Green, Mary Farquhar, Winter Park, Fla.: Early 19th-century counterpane (245319).

Greenberg, Albert (See Everglades Aquatic Nurseries, Inc.)

Greene, Anne Carter, Washington, D.C.: Engraved portrait of President Harding used for memorial stamp issued in 1923 (243708); black and white engraving 1854, and key to engraving (246415).

Greenwell, Francis M., Washington, D.C.: 3 fresh-water mussels from Florida (242592).

Greeson, Otis H., College Park, Md.: World War II publication on identification of German Naval vessels (247956).

Gressitt, Dr. J. Linsley (See Bishop Museum, Bernice P.)

Gribble, Col. W. C., Jr. (See Defense, U.S. Department of)

Grice, Dr. George D., Woods Hole, Mass.: 14 copepods (242465). (See also Woods Hole Oceanographic Institution)

Griesbach, John, Wheaton, Md.: 4 minerals from Minnesota and Virginia (243847, 245568); 1 lot of gypsum from Calvert Co., Md. (244736).

Grinnell, Robert S., Jr. (See Columbia University)

Groner, Alex (See Time Inc.)

Grossfield, Mrs. Harriet, Port Arthur, Tex.: Silk bandanna containing street map, illustrations, and statistical data of Washington (244305).

Gruber, Samuel H. (See Miami, University of)

Guerin, Wayne, Altona, N.Y.: Photograph of Mrs. Grover Cleveland (241942).

Guillemin, Dr. C. (See Bureau de Recherches Géologiques et Minières)

Guinea, Government of the Republic of: (Through the Permanent Mission of Guinea to the United Nations) booklet of postage stamps and 79 stamps (244487).

Guitart, Dr. Raul P., New Castle, Ind.: 4 mollusks, holotypes, from Cuba (246595).

Gulf Coast Research Laboratory, Ocean Springs, Miss.: (Through Charles E. Dawson) 9 isopods and 91 amphipods (232273, 232625).

Gulf Oil Corp., Coral Gables, Fla.: (Through T. A. Kibby) 15 pieces of rock containing bryozoans and brachiopods from Bolivia (244828).

Gulf Research and Development Co., Pittsburgh, Pa.: (Through Dr. A. A. Levinson) 4 minerals from Mexico (242001, exchange).

Gulick, Mrs. Helen Iredell, Alexandria, Va.: Woman's mink coat with muff and hat, early 20th century (245860).

Gunnell, E. Mitchell, Denver, Colo.: 4 minerals from Colorado and Wyoming (244625, exchange).

Gunther, Lloyd F., Albuquerque, N. Mex.: Sulfur from Jemmes Sulfur Springs, N. Mex., and halotrichite from Resolute Mine, Mercur, Utah (247130, exchange); 2 gypsum specimens from Lincoln Co., N. Mex. (247468).

Gurney, Dr. Ashley B., Washington, D.C.: 595 miscellaneous insects from the U.S. (243691, 243692, 243698, 244220).

Guthman, William H., Westport, Conn.: U.S. musket and 27 verifying gages (245499); U.S. Colt automatic revolver and a Springfield musket (244356, 247569, exchanges).

Guthridge, J. E., Hammond, Ind.: Flag used to drape the engine of President Warren G. Harding's funeral train (243593).

Gutsevich, Dr. A. V., Leningrad, U.S.S.R.: 100 insects, including 31 species of biting midges from European U.S.S.R. (238959, exchange).

Haas, Jerry, Lexington, Ky.: U.S. Naval rating badges of the period 1930-1940 (243001).

Haas, Sidney D., Lexington, Ky.: 4 items of distinctive insignia collected by donor (242997). (See also Berthold, Joseph A., Goff, F. W., Landis, John, Littman, Lt. Col. A. A., McFadden, Gilbert, Perkins, James, Jr., and Scott, Brig. Gen. James D.)

Habe, Dr. Tadashige, Tokyo, Japan: 120 marine, fresh-water, and land shells, including 95 paratypes (239855).

Hadidan, Dikran. (See Hartford Seminary Foundation.)

Haggard, L. R., Lynnwood, Wash.: Stilbite, gold, and thomsonite from British Columbia, Oregon, and Washington (243719, exchange); 3 pyromorphites from British Columbia, fluorite from Montana, and 3 andradites from Nevada (243845).

Haines, Dr. A. Lee, Woodland Hills, Calif.: 82 phanerogams from Costa Rica (244333, 244340).

Haiti, Government of, Port-au-Prince, Haiti: (Through Agence Philatelique Haitienne) 14 miscellaneous mint stamps and covers of Haiti (247577).

Haley, Judith A., Alexandria, Va.: First-day cover bearing British stamps issued for the Fourteenth Olympiad (246525).

Hall, Margaret Jane, Memphis, Tenn.: Invertebrate fossil from the Upper Cretaceous of Coon Creek, McNairy Co., Tenn. (243241).

Hall, Margaret Jane, and Mid-South Earth Science Club, Memphis, Tenn.: 1,000 mollusks from the Upper Cretaceous, Ripley formation of Mississippi and Tennessee (243340).

Hall, Prof. Robert J. (See Worcester Polytechnic Institute.)

Hall, Mrs. Ruth P. (See Oliver, Comdr. and Mrs. James P.)

Halliburton Co., Duncan, Okla.: (Through Phil Montgomery) group of artifacts, models, and display material illustrating the development of oil-well-cementing techniques (248053); (through William D. Owsley) model of a hydraulic fracturing pump truck (243596).

Haluska, Lud. (See De Kroyft-Metz and Co.)

Hambly-Clark, R. J., Westbourne Park, South Australia: (Through Dr. Donn E. Rosen) shark jaw from Australia (243557).

Hamelly, Henry, Grove City, Pa.: 62 first-day covers of Canada, the United Nations, and the U.S. (245471, 247643).

Hamill, Michael J. (See Beacon Chapter #30.)

Hamilton, Alexander, Mount Kisco, N.Y.: (Through Hubert A. Howson) 42 books formerly in the Comegys library (244870).

Hamilton, Craig M., Miami, Fla.: Wooden object recovered from wreck site of Spanish Fleet of 1733 (246793).

Hamilton, Col. Edward P. (See Crawford, Mrs. Seth Turner.)

Hamilton, Mrs. William J., Jr., Ithaca, N.Y.: 65 marine mollusks from Australia, England, and the U.S. (216808).

Hammer, Ott (See Dresser Industries, Inc.)

Hammerslough, Philip, West Hartford, Conn.: 4 silver saltspoons, ca. 1835 (245697).

Hanahan, Jack, Belmont, N.C.: 3 turquoise specimens from Virginia and 2 fairfieldites and a wavellite from Kings Mountain, N.C. (243674, 243840, exchanges).

Hanley, T., Caringbah, N.S.W., Australia: 8 Australian bread tokens and medalets (245099).

Hann, Mrs. Phyllis Carrington, Denver, Colo.: Beaver muff of 1916 (242089).

Hanson, Fred, Miami, Fla.: Camera (246142).

Haque, Dr. A. F. M. Mohsenul (See Pakistan, Government of)

Hardin, Dr. James W. (See North Carolina State College)

Harding, T. Swann, Rehoboth Beach, Del.: 1,330 miscellaneous foreign and U.S. Possession view-postcards (243012).

Harlan, Mrs. John M., Washington, D.C.: Presentation booklet containing 51 U.S. 3-cent Gunston Hall commemorative stamps autographed by Arthur E. Summerfield (244392).

Harley, Marie F., Washington, D.C.: Terra cotta Roman lamp (245561).

Harman, Dr. Walter J., Baton Rouge, La.: 6 slides of oligochaete worms from Louisiana (247290).

Harmston, Dr. F. C., Greeley, Colo.: 1,367 mosquitoes from North America (242487, exchange). (See also Health, Education, and Welfare, U.S. Department of)

Harper, Winnifred E. G., Richmond, Va.: Collection of family photographs of the late 19th and early 20th centuries (243103).

Harrington, Awona, San Diego, Calif.: (Through Smithsonian Institution) 2 typewriters (245476). (See also Harrington, John Peabody)

Harrington, John Peabody (deceased): (Through Awona Harrington) cast-iron kettle (245974).

Harris, Henry E., Boston, Mass.: Unused Harris "Freedom" stamp album (246524).

Harris, T. P. (See Chicago Pneumatic Tool Co.)

Harrison, James L. (See Government Printing Office, U.S.)

Harsh, R. H., Hollywood, Md.: 2 covers bearing meter impressions of Monterey, Calif., misspelled and correctly spelled (243016).

Hart, C. W., Jr., Philadelphia, Pa.: 29 crayfishes (244019, 244310).

Hartford Machine Screw Co., Hartford, Conn.: (Through James J. Ford) Roosamaster fuel and injection pump, ca. 1962 (236985).

Hartford Seminary Foundation, Hartford, Conn.: (Through Dikran Hadidan and Hubert A. Howson) 12 books formerly in the Comegys library (244868).

Hartwell, Mrs. Cornelia T., Santa Monica, Calif.: Judson's original zipper (235266).

Hartzell, H. C., Bar Harbor, Maine: Bandanna from the Harrison-Morton Presidential campaign (247188).

Harvard University, Cambridge, Mass.: 232 phanerogams and 2 grasses from Columbia, New Guinea, and North America (245076, 245241, exchanges); (through Prof. Clifford Frondel) slice

of the Ollague, Bolivia, meteorite (245687); (through Prof. F. V. Hunt) 4 sound absorbing seat cushions, 2 organ pipes, and a horn (248058). *Arnold Arboretum*: (Through Dr. Richard A. Howard) 226 wood specimens from Fiji collected by Dr. A. C. Smith, 1947 (246112, exchange). *Gray Herbarium*: 1,263 phanerogams, 30 grasses, and 504 ferns from New Guinea and North and South America (244619, 247000, exchanges); (through Dr. Rolla M. Tryon) 682 photographs of fern types (244344, exchange). *Museum of Comparative Zoology*: (Through Mrs. Myvanwy M. Dick) 17 original illustrations of sharks by Eugene Fischer (243854); (through Dr. Howard E. Evans) 14 wasps, including paratypes, of the New World (243699, 244743); (through Dr. Giles W. Mead and Dr. Henry B. Bigelow) fish, holotype, from the Gulf of Mexico (237177).

Hatch, Frederic, Rehobeth, Del.: Lady's Swiss watch (247032).

Hathaway, Mrs. Guilford C., Assonet, Mass.: Terra cotta Roman lamp (245444).

Hatschbach, Dr. Gert, Curitiba, Paraná, Brazil: 170 phanerogams and 35 grasses from Brazil (242148, 242791, 245071, 246239, 247199).

Hattori, Dr. Sinske (See Hattori Botanical Laboratory)

Hattori Botanical Laboratory, Miyazaki Prefecture, Japan: (Through Dr. Sinske Hattori) 100 mosses (246777, exchange).

Hauck, Richard, Bloomfield, N.J.: Cobaltite from Canada (245311). (See also May, James)

Haupt Charles (See Johns Hopkins University)

Havelock, T/Sgt. L. B., Levittown, Pa.: 300 used U.S. postage due stamps (245703).

Haverlin, Carl (See Broadcast Music, Inc.)

Havre de Grace Marina, Havre de Grace, Md.: (Through Chris Motz) 5 ice plows, ca. 1880-90 and a 19th-century belt-mending clamp (245627, 247884).

Hawaii, State of: Department of Agriculture: (Through Dr. C. J. Davis) 115 chalcid flies from Australia (246403); (through Dr. N. L. H. Krauss) 5 phanerogams from Mexico collected by donor (244724). *Department of Health*: (Through Dr. P. Quentin Tomich) 25 rodents from Hawaii (242589). *Department of Land and Natural Resources*: (Through Michio Takata) shark jaw (226248).

Hawks, Earl P., Salisbury, N.C.: Burnside cartridge, ca. 1860 (247021).

Hayes, Doris (See Agriculture, U.S. Department of)

Hayes, Frances, Falls Church, Va.: Grooving plane, 19th century (245630).

Hays, Mr. and Mrs. Raymond, Sr., Lanham, Md.: Woman's corset of 1889 and a 19th-century screwdriver (242775, 243481).

Hayward, Dr. C. Lynn, Provo, Utah: 13 bird skins (241622).

Hazel, Joseph E., Baton Rouge, La.: 2 slides of ostracods from the Pleistocene of California (244347).

Hazleton, Beth, South Laguna, Calif.: Antipatharian (246886).

Heald, Edward T. (See Stark County Historical Society)

Health, Education, and Welfare, U.S. Department of: Washington, D.C.:

(Through Dr. William M. Ingram) 9 fresh-water Asiatic clams from Ohio (243548). *National Institutes of Health*: 11 bird skins and 5 birds in alcohol (243685); (through Dr. Alexander Wetmore) 25 bird skins, 4 alcoholic birds, and a bird skeleton from Panama (245197). *Public Health Service*: (Through Bernard Feinstein) 366 buffalo lice, bedbugs, and mosquitoes from Viet-Nam (246339); (through Dr. F. C. Harmston) 1,963 mosquitoes from North America (243818, exchange); (through Dr. William L. Jellison) 82 miscellaneous insects from Montana (246305); (through William A. McDonald) 393 miscellaneous insects from Ethiopia and Israel (247129); (through Dr. Robert L. Rausch) 16 black-bear skulls and a wolf from Alaska (239473, 245934); (through Dr. Charles S. Rich-

ards) 94 fresh-water mollusks from Florida and Puerto Rico (230333); (through Dr. Kathryn M. Sommerman) 130 slides of fleas and lice from North America and 173 flies from Alaska (246215, 247161, 246867). *Rocky Mountain Laboratory*: (through James M. Brennan) 12 slides of chiggers from the neotropics (247473); (through Dr. Glen M. Kohls) 3 ticks, paratypes (243580); (through Conrad E. Yunker) 44 slides of mites, including holotypes (245576).

Heatwole, Dr. Harold, Rio Piedras, Puerto Rico: 63 miscellaneous insects from Central and South America and Puerto Rico (247353, 247730).

Heeren, Rodman A., New York, N.Y.: 4 insignia of decorations awarded the late Rodman A. Wanamaker (243008).

Hegen, Albert W. (See Utah, State of)

Heimsch, Dr. Charles, Oxford, Ohio: 60 microscope slides of woods (246205).

Heininger, Joseph S., St. Paul, Minn.: Groutite from Robert Mine, Cuyuna, Minn. (243333).

Heist, Theodore A., Westfield, N.Y.: 32 mammals and 2 birds from New York (247861).

Heldt, Dr. Thomas J., Detroit, Mich.: Skull of a mountain lion from Garfield Co., Utah (244949).

Helfert, Betty, Kensington, Md.: Sampler made by Mary Mead, 1818, and printed satin ribbon commemorating the death of William Henry Harrison (244481).

Helsinki, University of, Helsinki, Finland: (Through Dr. H. Roivainen) 440 mosses from Europe (242684, 245951, exchanges).

Hemenway, Earl L., Detroit, Mich.: Locke Adder adding machine (243137).

Henbest, Lloyd G., Washington, D.C.: Photographic shutter and camera accessories (245596).

Henderson, Dr. Alfred R., Asbury Park, N.J.: Cambridge indicator dye-dilution curve apparatus (245990).

Henderson, Edward P., Washington, D.C.: 3 mercury ore cinnabar specimens from the Philippines and 9 slides of the

Bonita Springs, Fla., meteorite (243680, 246681).

Hensel, Mrs. Jessie E., Summit, N.J.: Piece of silk from trousseau dress of Susannah Gist, 1855 (242742).

Herbario Nacional del Instituto de Biología, Mexico, D.F.: (Through Prof. Maximino Martinez) phanerogam, isotype, from Mexico (243339).

Herbarium Bradeanum, Rio de Janeiro, Brazil: 128 phanerogams from Brazil (242463); (through Dr. G. F. J. Pabst) 87 grasses from Brazil (240012).

Herber, Dr. Elmer C., Carlisle, Pa.: Approximately 215 fresh-water snails from near Carlisle (242936, 244084).

Hermann, Dr. Frederick J., Adelphi, Md.: 157 phanerogams, 7 grasses, 2 ferns, and 859 miscellaneous mosses and lichens (243886, 246779, 247819). (See also Agriculture, U.S. Department of)

Heron, Gayle A. (See Washington, University of)

Hesky, Dr. M. (See Israel, State of)

Hester, Dr. Frank J. (See Interior, U.S. Department of the)

Hettleman, Mrs. Bertha, Baltimore, Md.: Colored engraving of President and Mrs. McKinley (240718).

Hewatt, Dr. Willis G., Gloucester Point, Va.: 2 isopods (243506).

Hewitt, Adm. H. Kent, Orwell, Vt.: Nazi banner, personal flag, and a report entitled "Invasion of Southern France" (247958).

Heyden, Father Francis J. (See Georgetown University)

Heyman, Mrs. Therese, Berkeley, Calif.: Five-tola silver piece issued by M.M. Manilal Chimanlal and Co., Bombay, India (245207).

Hibbard, Dr. Claude W. (See Michigan, University of)

Higgins, Dr. Robert P., Winston-Salem, N.C.: 2 echinoderms and 6 slides including types (230839, 247127).

Highlands Biological Station, Highlands, N.C.: (Through Thelma Howell) 3 moles from North Carolina (243724).

Highton, Dr. Richard, College Park, Md.: Crayfish (246274).

Hile, Raymond P., Washington, D.C.: Turned wooden bottle (243480).

Hill, Mrs. Frances Thompson, Seattle, Wash.: Marble bust of Mary Baker Eddy by Mme. Louella Varney Serrao (242293).

Hill, Mrs. Jean Westerfield, Washington, D.C.: 16 examples of women's and children's dresses and accessories of the 19th and 20th centuries, given in memory of donor's mother, Florence Ketchum Westerfield (242516).

Hiltermann, Dr. H., Hanover, Germany: (Through Ruth Todd) 5 fossils from the upper Eocene of Wemmel, Belgium and 3 fossils from the middle Miocene of Dingden, Germany (245822, exchange).

Hinckley, Mrs. Robert M., Washington, D.C.: Carriage parasol, small jet brooch, black mitts, woman's cap, and narrow lappet (244369).

Hindelang, Mrs. John L. (See Campbell, M. B.)

Hiratsuka, Unichi, Washington, D.C.: Woodcut, *Summer Clouds, Mt. Asama*, by donor (247367).

Hirsch, A. A., Shreveport, La.: Approximately 90 water meters (245003).

Ho, T. Y. (See China, Republic of)

Hobbs, Dr. Horton H., Jr., Washington, D.C.: 23 crayfishes and 19 ostracods, including types (240207, 240751, 245962, 243185). (See also Bedinger, Dr. M. S.)

Hobbs, Dr. Horton H., Jr., and Bedinger, Dr. M. S., Washington, D.C.: 6 crayfishes, including types (244850).

Hobbs, Dr. Horton H., Jr., and Walton, Margaret, Washington, D.C.: 22 ostracods (243370).

Hoffman, Edwin Michael, Black Mountain, N.C.: Marine mollusk from the Philippines (246334, exchange).

Hoffman, Dr. R. L., Blacksburg, Va.: 359 miscellaneous insects including holotype, from Cuba and North America (244738, 246135, 246136, 247720, 247721, 247934).

Hofslund, Dr. Pershing B. (See Minnesota, University of)

Holland, Mrs. J. H., Washington, D.C.: 6 examples of dress and accessories of the 19th and 20th centuries (242515).

Holley, Harold R., Milton, W. Va.: 42 U.S. mining tokens (247186).

Holliman, Dr. Rhodes B., Blacksburg, Va.: 85 brackish-water mollusks from western Florida (242444).

Hollins College, Hollins College, Va.: (Through Prof. Paul M. Patterson) cultivated fern (245565).

Holloway, Mrs. Donald, Arlington, Va.: 25 U.S. Army uniforms, insignia, cartridges, and veterans badges collected during and after the Spanish-American War (244224).

Holmes, Mrs. Milton A., Jersey City, N.J.: 37 gold and silver coins and 987 miscellaneous U.S. and foreign postage stamps and postal stationery given in memory of donor's husband, Milton A. Holmes (233604, 241161).

Holmgren, Dr. Arthur H. (See Utah State University)

Holsinger, John R., Falls Church, Va.: 41 land and fresh-water snails, 2 centipedes, and a gray bat from Virginia (242593, 244085, 245873); 9 crayfishes (244018, 245323).

Holt, Dr. P. C., Blacksburg, Va.: 16 oligochaete worms, holotypes and paratypes (239551).

Holthuis, Dr. L. B. (See Interior, U.S. Department of the)

Holtzclaw, Henry J. (See Treasury, U.S. Department of the)

Holzman, Simon, Brooklyn, N.Y.: 10 radio transmitting tubes (242267).

Homan, B. H., New York, N.Y.: 231 progressive and completed die proofs of postage and airmail stamps from Honduras, Liberia, and San Salvador (245624).

Honea, James L., Jr., Baltimore, Md.: 6 ethnological items from Japan (225127).

Hood, James R., North Chattanooga, Tenn.: 82 fresh-water mollusks from eastern Tennessee (242019).

Hoolbaans, A. (See Netherlands, Government of)

Hopkins, Stephen (See District of Columbia, Government of)

Hopkins Marine Station, Pacific Grove, Calif.: (Through Dr. A. Todd Newberry) 50 ascidians (245057).

Hopping, Dr. George R., Calgary, Alberta, Canada: 14 bark beetles, including 4 paratypes, from North America (246687, 247010).

Hornbrook, Dr. N. de B., Lower Hutt, New Zealand: (Through Ruth Todd) foraminifer, topotype, from the Miocene of New Zealand (244379).

Hotchkiss, Neil (See Interior, U.S. Department of the)

Hottes, Dr. F. C., Grand Junction, Colo.: 310 aphids, including 157 slides, from Europe and western U.S. (246688, 247726).

Houghteling, Mrs. J. L., Washington, D.C.: 8 Russian costumes of pre-Revolution era, and a Korean costume (242741).

House, Dr. Michael R., Durham City, England: 4 brachiopods from Malta Island (246400).

Houston, Mrs. Flor, Kensington, Md.: 100 tektites from the Philippines (242952).

Houston, Floyd D., Long Island, N.Y.: Model of U.S. submarine *Holland* (242208).

Houston, University of, Houston, Tex.: (Through Dr. Jules R. DuBar) 23 crinoids from the Paleozoic of Texas (242103, exchange).

Howard, Dr. Dorothy G., Frostburg, Md.: Double-woven, Jacquard coverlet of the 19th century (242607).

Howard, Mrs. Faye B., Santa Barbara, Calif.: 225 marine mollusks, including a paratype, from Mexico and Panama (245643).

Howard, Dr. Richard A. (See Harvard University)

Howard College, Birmingham, Ala.: (Through Dr. Herbert A. McCullough) 59 lichens from Alabama (242303, 245186).

Howell, Edgar M., Washington, D.C.: 7 modern European coins (243473); 6 Japanese occupation currencies used in the Philippines during World War II (247360).

Howell, John Thomas (See California Academy of Sciences)

Howell, Thelma (See Highlands Biological Station)

Howland, Dr. Richard H., Washington, D.C.: 2 men's handkerchiefs of the mid-19th century, a man's suit, a gold ring, and 78 examples of costume, 1905-35 (242860); 7 examples of 19th-century textiles (243365); pair of chair covers (243463); 268 miscellaneous U.S. and foreign covers and postage stamps (245620, 247654); low-boy, *Mrs. Tom Thumb* toy book, and a roller-towel (246875); early-type terry cloth bath towel (247987).

Howson, Hubert A., New York, N.Y.: 95 books formerly in the Comegys library (243076). (See also Consistory of Bronxville Reformed Church, First Methodist Church, Hartford Seminary Foundation, Hamilton, Alexander)

Howson, Joan, London, England: Copy of *Historical Memorials of Westminster Abbey* by Arthur Penrhyn Stanley (244482).

Hoyt, Dr. John H., Sapelo Island, Ga.: 37 echinoids from Sapelo Island (244630).

Hu, Chung-Hung (See Balk, Dr. Christina L.)

Hubbs, Dr. Carl L. (See Scripps Institution of Oceanography)

Hubricht, Leslie, Meridian, Miss.: 3 worms, 25 amphipods, shrimp, and 5 hippos (239852); 32,327 marine invertebrates, an insect, and 3 amphibians (240513); 49 land and fresh-water mollusks from the U.S., including paratypes and holotypes of 6 new species (241041).

Hudgins, Carter, Marion, N.C.: Fairfieldite from Kings Mountain, N.C. (244858).

Hudson River Museum, Yonkers, N.Y.: (Through Frank Chambers) wurtzite from Thomaston, Conn. (247618, exchange).

Hueber, Dr. Francis M., Washington, D.C.: 2 allemontite specimens from Engineer Mine, British Columbia (247345, exchange). (See also Schabliion, Robert J.)

Hughes, Prof. Vernon W. (See Yale University)

Hughes Tool Co., Houston, Tex.:

(Through L. L. Payne) 4 rotary drilling rock bits (246869).

Huizinga, Dr. H. W. (See Interior, U.S. Department of the)

Hulbary, Prof. Robert L. (See Iowa, State University of)

Hull, Dr. Gordon Ferrie, Jr., Concord, Mass.: Bell jar and miscellaneous parts (247880).

Hulsizer, J. E. (See Public Service Electric and Gas Co.)

Humble Oil & Refining Co., Tulsa, Okla.: (Through W. W. Turnbull) gravity meter model (248051).

Humes, Dr. Arthur G. (See Boston University)

Humiston, Lee E., China Lake, Calif.: Specimen of the Muroc Dry Lake, Kern Co., Calif., meteorite (246061, exchange).

Humpherson, J. H., Arlington, Va.: Pathoscope 28 mm. projector (245097).

Hunt, Prof. F. V. (See Harvard University)

Hunt, Mrs. John E., Washington, D.C.: 12 brasses from Malaya and the Philippines, 2 Apache baskets from Arizona, and 2 books on the Moro by Saleeby (242662).

Huntington, Mrs. Charles Henry Greenough, New York, N.Y.: Collection of World War I medals and citations, Belgian revolver, and "Ardetti Corps" knife (245313).

Husak, Jerome (See American Tropical Association)

Huston-Tillotson College, Austin, Tex.: (Through Dr. Exalton A. Delco, Jr.) 7 copepods (246747).

Hutton, Dr. Robert F. (See Florida, State of)

Hymn Society of America, New York, N.Y.: (Through Deane Edwards) book, *English Hymns: Their Authors and History*, originally from the B. B. Comegys library (244189).

Ibadan, University of, Ibadan, Nigeria: (Through Dr. Soba Oyawoye) 19-gram tektite (246269, exchange).

Idrobo, Dr. J. M. (See Instituto de Ciencias Naturales)

Illg, Dr. Paul L. (See Swan, Dr.

Emery F., and Washington, University of)

Imlay, Dr. Ralph W. (See Interior, U.S. Department of the)

Imperial College of Tropical Agriculture, Port-au-Spain, Trinidad: Phanerogam from Trinidad (242579); 148 phanerogams, 6 grasses, and 4 ferns from Tobago and Trinidad (243879, exchange).

India, Government of: Geological Survey: (Through Dr. B. C. Roy) specimen of the Valudavur, India, meteorite (244789, exchange).

Indiana University, Bloomington, Ind.: 156 phanerogams and 14 grasses from Thailand (247752, exchange).

Inger, Dr. Robert F. (See Chicago Natural History Museum)

Ingham, Paul B. (See Yale and Towne Manufacturing Co., Inc.)

Ingraham, Edward (See Edward Ingraham Co.)

Ingram, Dr. William M. (See Health, Education, and Welfare, U.S. Department of)

Inoue, Dr. Hiroshi, Tokyo, Japan: 110 cryptogams from Japan and Korea (242686, exchange).

Institut Français d'Afrique Noire, Sénégal, Africa: (Through Dr. Th. Monod) 2 fishes from Port-Etienne (247306).

Institut Géologique de l'Université de Louvain, Louvain, Belgium: (Through Dr. Jules Moreau) 3 specimens of gallite with renierite from the Prince Leopold Mine, Katanga, Congo (243447, exchange).

Institute of Aerospace Sciences, New York, N.Y.: (Through W. H. Arata, Jr.) model of hydrofoil ship (245895).

Institute of Jamaica, Kingston, Jamaica: (Through Dr. Thomas H. Farr) 6 robber flies, holotype and paratypes of a new species, from Jamaica (246787).

Institute of Marine Biology, Mayaguez, Puerto Rico: (Through Mrs. Germaine L. Warmke) 16 marine mollusks from Puerto Rico (238827).

Institute of Marine Bio-Research, Santa Ynez, Calif.: (Through Dr. J.

Laurens Barnard) 974 isopods and 322 amphipods (245146).

Instituto Agronômico, Belo Horizonte, Minas Gerais, Brazil: 3 phanerogams from Brazil (241459).

Instituto Agronômico do Norte, Belém, Pará, Brazil: Grass and 4 phanerogams from Brazil (242690, 243561).

Instituto Botânico, Lisbon, Portugal: (Through Dr. C. N. Tavares) 64 cryptogams (242576, exchange).

Instituto de Biologia, Mexico, D.F.: (Through Dr. Alejandro Villalobos) 10 amphipods, paratypes (233646).

Instituto de Botânica, São Paulo, Brazil: 147 phanerogams and 4 grasses from Brazil (246275).

Instituto de Botanica Agricola, Buenos Aires, Argentina: 2 phanerogams and grass from Argentina (246364, exchange).

Instituto de Ciencias Naturales, Bogotá, Colombia: 85 grasses from Colombia (226529, 242689); 74 phanerogams from Colombia (246486, exchange); (through Dr. J. M. Idrobo) grass and fern from Colombia (244168); (through Maria Teresa Murillo) 4 ferns from Colombia (240581); (through Dr. Lorenzo Uribe Uribe) 3 cryptogams from Colombia (244025).

Instituto de la Salle, Bogotá, Colombia: (Through Brother Nicéforo Maria) collection of frogs from Colombia collected by donor (244772).

Instituto de Pesquisas Tecnológicas, São Paulo, Brazil: (Through Eng. Calvino Mainieri) 2 microscope slides of wood (247466, exchange).

Instituto Nacional de Investigaciones Forestales, Coyoacán, Mexico, D.F.: (Through Dr. Xavier Madrigal Sánchez) 68 cryptogams from Mexico (246663).

Instituto Politécnico Nacional, Mexico, D.F.: (Through Dr. Federico Bonet M.) 38 gorgonians (238840); (through Dr. José Alvarez del Villar) 2 fishes, paratypes, from Mexico (246959).

Inter-American Tropical Tuna Commission, La Jolla, Calif.: (Through Dr. W. L. Klawe) 60 marine invertebrates,

382 insects, and a squid (240794); mollusk from Cocos Island (243856); (through Dr. Clifford L. Peterson) spiny lobster and 67 mollusks (244146).

Intercontinental Minerals, Stow, Ohio: 8 minerals from the Belgian Congo (244467, exchange).

Interfraternity Council, Manhattan, Kans.: (Through Prof. V. D. Foltz) brick bearing slogan "Don't spit on sidewalk" (246434).

Interior, U.S. Department of the, Washington, D.C.: (Through Dr. S. H. Mamay) holotype of a fossil insect from Baylor Co., Tex. (243338). *Bureau of Mines*: (Through H. C. Fowler) pressure gage (247879). *Fish and Wildlife Service*: 2 phanerogams from southern Texas (246504); 642 bird skins, 130 bird skeletons and alcoholics (247929); 297 mammals (248194); through William W. Anderson) 3 lobsters and 313 plankton specimens (241484, 242861); (through Clint Atkinson) 74 marine invertebrates (236993); (through Frederick H. Berry) 41 fishes, including holotypes and paratypes, from Central America (242450); (through Harvey R. Bullis, Jr.) 22 sea urchins and sea anemones and 1 lot of polychaete worms (239870); lobster (242215); 774 marine invertebrates and 1 lot of brachiopods (244083); 234 marine mollusks, including 4 holotypes and 10 paratypes, 750 barnacles, and shrimp (245434, 247734, 247946); (through Harvey R. Bullis, Jr., and Drs. Daniel M. Cohen and A. R. Longhurst) 2,625 miscellaneous fishes from various localities and 19 mollusks (241344); (through Dr. Daniel M. Cohen) 200 fishes from Nigeria (247424); (through Dr. Alexander Dragovich) 3 crabs (242912); (through Dr. Frank J. Hester) 25 sharks from off Central America in the eastern Pacific (240877); (through Dr. L. B. Holthuis) crab (246201); (through Neil Hotchkiss) 476 phanerogams, 7 grasses, 11 ferns, and a cryptogam from Alaska, Arizona and California (245416, 245487); (through Dr. H. W. Huizinga) 337 amphipods (239494); (through Daniel

H. Janzen) 30 migratory bird hunting (duck) stamps, 1962-63, and a die proof (243011); (through E. C. Jones) 3 copepods (241235); (through Susumu Kato) 5 sharks from the eastern Pacific (244246); (through James A. Kerwin) hydroid, 5 oligochaete worms, and 3 lots of insects (236534); (through Raymond B. Manning) 4 stomatopods (239597, 242661); (through David C. McGlauchlin) golden eagle (248040); (through Pat McLaughlin) crab (233593); (through Theodore R. Merrell, Jr.) 14 oligochaete worms (236434); (through Clarence F. Pautzke) 9 filing cases and a 9-drawer card file containing drawings and other material (239954); (through Herbert C. Perkins) 2 fishes from Mexico (242452); (through Mrs. LaNelle W. Peterson) 3 cans and 7 vials containing Foraminifera from *SS Explorer* stations off Honduras (245770); (through Mrs. LaNelle Peterson and Harvey R. Bullis, Jr.) 1,594 marine invertebrates, 23 mollusks, 1 lot of foraminifers, a brachiopod, and 2 fishes (243725); (through Dr. Anthony J. Provenzano, Jr.) 5 worm tubes and 25 pagurid worms (242730); (through Dr. George B. Saunders) 50 slides of bird lice from Texas and 279 mollusks from Mexico (233003, 246310); (through Kenneth Sherman) 14 copepods (243061); (through Dr. Victor G. Springer and John H. Finucane) 3 fishes from Florida (247252); (through Dr. Donald W. Strasburg) 226 fishes, mostly from the tropical mid-Pacific Ocean and a shark from Hawaii (243-973, 246668); (through Paul J. Struhaker) 2 shark jaws and 2 skin patches from South Carolina (240845); (through John R. Thompson) 6 Spanish shrimps (243401); (through Dr. Marvin L. Wass) 77 crustaceans, including holotypes and paratypes (245402, 247-126); (through Joe D. White) 38 marine and brackish-water mollusks from Florida (241098); (through Dr. Roland Wigley) isopod (237997). *Geological Survey*: 12 fish scales and 2 upper dental plates of a primitive armored fish (246017, 246071); 24 minerals from various localities (242583, 247292); preobrazhenskite from the U.S.S.R. (246956); 719 phanerogams, 58 grasses, 8 ferns, and 16 cryptogams from the Pacific (247344); (through Dr. Arthur A. Baker) kurnakovite from Kern Co., Calif., and johannsenite from Tuscany, Italy (247275); (through Dr. Helen Duncan) approximately 40 thin sections of corals, types, from the Permian of northern Nevada (246397); (through G. Donald Eberlein) 2 hard corals (244269); (through Dr. Arthur B. Ford) 2 meteorites from the Thiel Mountains, Antarctica (242955); (through Dr. F. R. Fosberg) 16 land mollusks from Yucatan, Mexico (247-947); (through Dr. MacKenzie Gordon, Jr.) 30 pelecypods from the Permian of Brazil (246122); (through Dr. Ralph W. Inlay) 31 cephalopods from the Jurassic of Wide Bay, Alaska (246508); 26 mollusks and 2 plaster casts from the Jurassic and Cretaceous of Trinidad and Upper Cretaceous of Grove Creek, Ore. (247005, 247006); (through E. D. Jackson) 8 rocks from Montana (244-857); through Dr. Philip B. King) 33 rocks from the Sierra Diablo region of west Texas collected by donor (242-670); (through Dr. Harry S. Ladd) 1,079 corals (244711); (through Dr. Richard W. Lemke) 200 fresh-water and land snails from Cascade Co., Mont. (247477); (through Ralph L. Miller) 12 manganese ore specimens from Maine and Virginia (246372); (through Dr. Robert B. Neuman) 213 brachiopods from the Ordovician of Alabama (244-055); (through Dr. Thomas B. Nolan) approximately 52 vertebrate fossils from the Eocene of Wyoming (242547); (through W. A. Oliver, Jr.) 33 corals with 87 thin sections from the Upper and Middle Silurian of Quebec, Canada (247754, 247925); (through Dr. A. R. Palmer) 5 fossil crabs from Washington State (244765); (through R. J. Ross, Jr.) 2 slabs of phyllocarid crustaceans from the Ordovician of Lida, Esmeralda Co., Nev. (242677); (through Dr. Norman F. Sohl) 10 crustaceans from the Cretaceous of Clay Co., Ga.

(245449); mammites from Upper Cretaceous of Montana (246029); 384 oysters (247007, 247008); (through Dr. I. G. Sohn) 30 ostracods, including 5 slides and 2 slabs (241951, 242343, 243336); (through Dwight W. Taylor) 170 freshwater snails from Montana (246137); (through Ruth Todd) 20 Foraminifera from the Miocene of California and the Marshall Islands (242101); (through Dr. Frank C. Whitmore, Jr.) shark's tooth from St. Marys Co., Md. (242485); 6 fossil mammals from Natrona Co., Wyo. (247859); (through Dr. Ellis Yochelson) 206 invertebrate fossils, including types, 14 plaster casts of primary types, and 2 rocks (246039, 246120, 246121, 246124). *National Park Service*: 28 phanerogams (236193); (through William C. Bullard) 270 fresh-water snails from Death Valley National Monument, Calif. (229242). *International Business Machines Corp.*, New York, N.Y.: (Through Edmund Bowles) collection of electrical, physical, mechanical, and numismatic apparatus (241402).

International Import Co., Forest Park, Ga.: (Through George A. Bruce) scapolite from Moguk, Burma, 65.63 carats (244898, exchange).

Interstate Commerce Commission: (Through Philip J. Brannigan) 6 locomotive accessories (244237); (through John A. Nolin) 16 pieces of physical apparatus, field typewriter stand, 2 wire gages, 6 calipers, 2 revolution counters, and a group of cameras (246883).

Iowa, State University of, Iowa City, Iowa: 632 phanerogams, 69 grasses, and 18 ferns from Iowa and New Guinea (244346, exchange); (through Prof. Robert L. Hulbary) 14 ferns (241117).

Iowa State University of Science and Technology, Ames, Iowa: 6 grasses (239178); (through Dr. Frank E. French) 4 slides of mites from North America (247157).

Ireland, Dr. H. A., Lawrence, Kans.: 40 brachiopods, including types, from

the Silurian of the Arbuckle Mountains, Oklahoma (242581).

Iron & Steel Institute (See Richmond, Prof. I. A.)

Islas S., Dr. Federico, Mexico, D.F.: 17 scarab beetles from Mexico (242970); 3 bark beetles, paratypes, from North America (245291, exchange).

Israel, State of, Jerusalem, Israel: (Through Dr. M. Hesky) 6 mint postage stamps of Israel (247576).

Istituto Físico dell'Università (See Segré, Prof. Emilio)

Istituto Geologico dell'Università di Ferrara, Ferrara, Italy: (Through Prof. Piero Leonardi) 25 gastropods from the Triassic of the Italian Alps (244362, exchange).

ITT Federal Laboratories, Nutley, N.J.: (Through Joseph A. Abbott) Clavier microwave transmitter (247802).

Iwatsuki, Dr. Kunio (See Kyoto University)

Ix, Mr. and Mrs. Frank, Jr., Charlottesville, Va.: Morganite from Minas Gerais, Brazil (239209).

J. I. Case Company, Racine, Wis.: Portable steam engine (246139).

Jackson, E. D. (See Interior, U.S. Department of the)

Jacobs, Dr. M. (See Rijksherbarium)
Jacobs, Madelyn E., Washington, D.C.: 204 miscellaneous foreign postage stamps (243589, 244489).

Jaffe, Dr. Victor N., Washington, D.C.: Human skull from Mexico (245766).

Jago, John B., San Francisco, Calif.: 18 minerals from various localities (242476, exchange).

James, Edward O., Charleston, W. Va.: 775 tokens and scrip (245320).

Janzen, Daniel H. (See Interior, U.S. Department of the)

Jellison, Dr. William L., Hamilton, Mont.: 80 miscellaneous insects from St. Paul Island, Alaska (246045). (See also Health, Education, and Welfare, U.S. Department of, and Pan American Zoonoses Center)

Jenkins, Bud, Baltimore, Md.: Miller-

Dunn diving helmet and 2 weights (244387).

Jenni, Col. Clarence M. (See Missouri, University of)

Jennings, A., Nadi Airport, Fiji Islands: 202 marine mollusks from Fiji (244319).

Jennings, Clyde, Jr., Lynchburg, Va.: 5 postage stamp items showing oddities (243010).

Jewett, Kenneth, Peterborough, N.H.: Sections A and B of the Jewett collection of tinware (245425).

Jillson, Dr. Willard Rouse, Frankfort, Ky.: 4 limestone slabs containing fossils (243448).

Johns Hopkins University, Baltimore, Md.: (Through Charles Haupt) model of a horizontal, mill type steam engine, ca. 1850-60 (246694); (through Dr. David M. Raup) 20 echinoderms (230603); (through Prof. J. T. Thompson) 2 automotive decelerometers and model of a railroad bridge (247189, 247882). *School of Medicine*: (Through Dr. Ruth Bleier) camera, Zeiss microscope, ca. 1913-14, and 2 microtomes (242933).

Johnson, Prof. Arthur A., Conway, Ark.: 2 lots of nematode worms, holotypes and paratypes of 2 new species (244830).

Johnson, Dr. George Dean (See Citizens of Greenville and Spartanburg, S.C.)

Johnson, Harold, Newport, N.Y.: Quartz from Herkimer Co., N.Y. (244377).

Johnson, Dr. Phyllis T., Balboa Heights, Canal Zone: 24 fleas from Venezuela (244935, exchange). (See also Agriculture, U.S. Department of; and Bishop Museum, Bernice P.)

Johnson, Ray, Athens, Tenn.: Human skull found on Sand Island, Tenn. (246851).

Johnson, Roy (See Atlantic Screw Co.)

Johnston, Capt. Laurence (See Defense, U.S. Department of)

Jones, Mrs. Alice Judson, Washington, D.C.: Italian cabinet-on-stand formerly owned by Cyrus Field (245695).

Jones, E. C. (See Interior, U.S. Department of the)

Jones, Mrs. Jesse G., Valley Center, Calif.: Pocket diary, 1860 (245856).

Jones, Mrs. Lawrence M., Washington, D.C.: 2 women's dresses of 1854 and 1881 (247197).

Jones, Meredith (See Florida State University)

Jones, Richard, Casa Grande, Ariz.: 27 minerals from Arizona (244945).

Jones, Warren R., Houston, Tex.: Cristobalite from San Juan del Rio, Queretaro, Mexico (246004). (See also General Minerals)

Joseph Dixon Crucible Co., Jersey City, N.J.: (Through J. P. Templeton) No. 60 Dixon steel crucible (247631).

Josselson, Joseph, New York, N.Y.: 11 miscellaneous U.S. and foreign philatelic covers (247488).

Judd, Neil M., Silver Spring, Md.: Broom holder (244956).

Judson, Dr. Lewis U. (See Commerce, U.S. Department of)

Junge, Dr. Carlos, Chillán Viejo, Chile: 26 phanerogams, 2 grasses, 4 ferns, and a cryptogam from Chile (243280, 245482).

Kabata, Dr. Z. (See Marine Laboratory)

Kainen, Jacob, Washington, D.C.: Lithograph *Lyme Castle, Kent*, by Frederick Calvert (247172).

Kang, Young Heum (See Korea, Republic of)

Kansas, University of, Lawrence, Kans.: 4 grasses from Mexico (247144); (through Floyd W. Preston) model of a cable tool rig (247175).

Karshan, Don (See Zeiss Ikon, Inc.)

Karstens, Jerry, New Underwood, S.Dak.; Chilcutt, Bill, and Serene, Guy, Ventura, Calif.: (Through Dr. Paul J. Spangler) 36 crayfishes (244023).

Kato, Dr. Akira (See Watanabe, Dr. Takeo)

Kato, Susumu (See Interior, U.S. Department of the)

Katz, Marvin, Arverne, N.Y.: Porcelain water-closet commode with American eagle in relief (243077).

Katz, Dr. Max, Corvallis, Oreg.: 10

slides of blood flagellates from fish, including neotypes of 2 new species, from Washington (243855).

Kauffman, Ray W. (See E. J. Codd Co.)

Kawaguti, Dr. Siro, Okayama, Japan: 5 marine mollusks from Yamaguti Province, Japan (247949).

Keenan, Charles J., Portland, Oreg.: 2 photographic reproductions of the "Oregon Pony" locomotive, and a cacheted envelope commemorating the centenary of the locomotive's first run (246527); cacheted cover honoring the 100th anniversary of the first locomotive operated in the Pacific Northwest (243773).

Keeton, Dr. William T., Ithaca, N.Y.: 150 centipedes from Mexico (247942).

Keith, Bernard, Detroit, Mich.: 500 brachiopods and corals from the Middle Devonian of northern Ohio (242652).

Kelleher, J. F. (See Post Office Department)

Kellen, William R. (See California, University of)

Keller, Emil G. (See E. Leitz, Inc.)

Kelley, Mrs. Beatrice E., San Antonio, Tex.: Navaho Indian slave blanket (238619).

Kelley, Mrs. Edna, Washington, D.C.: 3 tints (245776).

Kelly, Kenneth L., Bethesda, Md.: Collection of spectacles and other pharmaceutical and medical accessories and 52 U.S. and foreign coins, tokens, and paper currencies (243487, 245208).

Kennedy, Mrs. Grafton S., Havre de Grace, Md.: Buddhist text from Shan State, Burma (242337).

Kennedy, President John F., Washington, D.C.: Cube of nuclear fuel (246640).

Kennedy, Mrs. John F., Washington, D.C.: 2 gowns and cape worn to Inauguration festivities January 1961 (234793).

Kent State University, Kent, Ohio: (Through Dr. Ralph W. Dexter) 107 marine invertebrates (239579).

Kephart, William, College Park, Md.: 2 sanbornites from Fresno Co., Calif. (244627).

Kerrich, G. J., London, England: 83 chalcid flies from Africa (245200, exchange).

Kerwin, James A. (See Interior, U.S. Department of the)

Key, Charles L., Fanwood, N.J.: Cookeite from Minas Gerais, Brazil (246750, exchange).

Key, K. H. L., Canberra, Australia: 16 scarab beetles (243540).

Khan, CWO Mushtaq Ahmad, Fort Monmouth, N.J.: 1-rupee note of Pakistan (241925).

Kibby, T. A. (See Gulf Oil Corp.)

Kidwell, Mario, Arlington, Va.: Soap doll in silver box (245214).

Kier, Dr. Porter M., Washington, D.C., 35 miscellaneous insects from Saudi Arabia (243700).

Killius, Charles, Suitland, Md.: Political-campaign ribbon for President McKinley (245625).

Kimball, Charles F., Bethesda, Md.: Woodcut by Hans Burgkmair and an engraving by a follower of Giulio Bonasone (247365).

Kincaid, Dr. Trevor, Seattle, Wash.: 14 lacewings from Washington State (244947).

King, George, Fairfax, Va.: 2 first-day covers and a first-day ceremonies program (247788).

King, Marian, Washington, D.C.: 5 textile and costume items (242122).

King, Mrs. Martha E., Washington, D.C.: 28 miscellaneous naval items worn by donor's late husband, Fleet Adm. Ernest J. King (248021).

King, Dr. Philip B. (See Interior, U.S. Department of the)

Kinney, Mrs. Margaret Shuttleworth, and Mixson, Mrs. Mary Anne Shuttleworth, Washington, D.C., and Shuttleworth, Charles Jackson, New York, N.Y.: Ivory memorandum pad, ca. 1830, given in memory of donors' mother, Mrs. Mabel Jackson Shuttleworth (244715).

Kirtley, Ivey W. (See Reda Pump Co.)

Klappenbach, Dr. Miguel A., Montevideo, Uruguay: 2 lizards, paratypes, from Uruguay (243806).

Klapthor, Frank, Washington, D.C.: Gold brocade fabric and 2 lengths of Brussels and tapestry carpeting, 19th and 20th centuries (244954).

Klapthor, Mr. and Mrs. Frank, Washington, D.C.: Booklet with color prints of dresses of Cheney silks, 1923 (242614).

Klauswitz, Dr. Wolfgang (See Sencenbergische Naturforschende Gesellschaft)

Klawe, Dr. W. L. (See Inter-American Tropical Tuna Commission)

Klein, Gershon, Bronx, N.Y.: 19th-century Bohemian drinking glass (245964).

Kler, Dr. Joseph H., New Brunswick, N.J.: Collection of Rotary International commemorative postage stamps, including section II (237519, 237520).

Kluckhohn, Harold B., Prairie Village, Kans.: High-pressure hypodermic syringe (245988).

Knapp, Leslie (See Raney, Dr. Edward C.)

Kneipp, Leon F., Washington, D.C.: Pocket watch (246695).

Knez, Dr. Eugene I., Washington, D.C.: 20 ethnological items from Japan and Korea (242342).

Knowles, James A., Jr., Baltimore, Md.: Parallel rule (245636).

Knowlton, Dr. George F., Logan, Utah: 4 beetles from Utah (244757); 105 aphids from western North America (245093, 247728).

Knox, Mrs. Katherine McCook, Washington, D.C.: 19 place cards, a menu card, and a water color, *George Washington Receiving Notice of His Election*, by Henry A. Ogden (247382).

Kobacker, Mrs. Alfred, Los Angeles, Calif.: Crocheted bedspread (245420).

Koch, Herbert F. (See Mullane, Mrs. John)

Kocher, Mrs. Eric, Washington, D.C.: 24 land snails, 2 snakes, and a fossil from Jordan (228232).

Kohls, Dr. Glen M., Hamilton, Mont.: 2 paratypes of ticks (243341). (See also Health, Education, and Welfare, U.S. Department of)

Kohn, Dr. Alan J., Seattle, Wash.: 12 sea anemones (237970).

Kojima, Dr. T., Meguroku, Tokyo, Japan: 6 termites from the Ryukyu Islands, Japan (245454).

Kolomensky, Dr. V. D. (See Gornyi Museum)

Kolp, Mrs. William, North Canton, Ohio: Fresh-water snail from Stark Co., Ohio (241940).

Konhaus, H. R., Meyersdale, Pa.: Stamp album containing 1,162 postage stamps of Japan (239451).

Kono, Tokuwō, Sacramento, Calif.: 99 thrips from worldwide localities (245457, 247013, exchanges).

Konrad, Hans, Hamburg, Western Germany: 53 brachiopods from the Paleozoic and Mesozoic of Germany (242084, exchange).

Korea, Republic of, Seoul, Korea: 10 ethnological items from Korea (236872). *Bank of Korea*: 12 printings of bank notes, 1962 (247185); (through Young Heum Kang) 9 Korean coins and an album containing 14 Korean notes (243474).

Kormann, Kurt, Karlsruhe, Germany: 109 flies from the U.S. (246031, exchange); 27 caddis flies from Germany (246172).

Kornicker, Dr. Louis S., College Station, Tex.: 9 ostracods, including holotypes (241363); (through Dr. I. G. Sohn) 12 slides of ostracods, including type (240433).

Kornman, William, Bettendorf, Iowa: Sherds of a restorable pot from Alabama (247611).

Kosic, Andrew P., Cleveland, Ohio: 13 postage stamps of Zanzibar with "specimen" overprint or perforation (242600).

Kotler, Joseph Mark, Glencoe, Ill.: (Through Token and Medal Society) 2 parking tokens issued by Wolke and Cutler and Howard-Clark Liquors, Inc. (242261, 242366); 2 medals commemorating the first meeting of the Chicago Area Token and Medal Society (243004, 245604).

Kowal, Dr. R. J. (See Agriculture, U.S. Department of)

Kramer, Douglas R. (See American Meter Co.)

Kramer, Dr. J. P., Washington, D.C.: 206 miscellaneous insects from Morocco (244384).

Kramer, Dr. K. U. (See Botanisch Museum en Herbarium)

Kraus, Ernst, Philadelphia, Pa.: Chilean ½ centésimo, 1962 (245979).

Krauss, N. L. H., Honolulu, Hawaii: Approximately 3,439 miscellaneous insects, including 12 vials from worldwide localities (244076, 244476, 245574); 102 phanerogams, grass and an isopod from worldwide localities (242348, 243878, 245088). (See also Hawaii, State of)

Krishna, Dr. Kumar, New York, N.Y.: 18 termites, including paratypes, from Madagascar, the Congo, and Guinea (243450, 247158).

Krombein, Dr. Karl V., Washington, D.C.: 359 miscellaneous insects from North America (243688, 244756, 246130).

Krotki, Karl, New York, N.Y.: Prehnite from New Jersey (242659, exchange).

Krukoff, B. A., Smithtown, N.Y.: 4,143 phanerogams and 480 woods from South America (242868).

Krupp, Leslie (See Cornell University)

Kruťa, Dr. T. (See Moravian Museum V Brně)

Kubicek, Robert A. (See Zenith Radio Corp.)

Kullerud, Dr. Gunnar, Washington, D.C.: Specimen of the Karoonda, Australia, meteorite (247469).

Kuntz, Dr. Robert E., San Francisco, Calif.: 916 miscellaneous insects from San Tze Ho, Taipei, Formosa, collected by Mrs. Lisa A. Kuntz and children (243574). (See also Defense, U.S. Department of)

Kurczewski, Frank, Ithaca, N.Y.: 25 wasps from the U.S. (243569, 244755).

Kynaston, Mrs. Margaret (See Donovan, Mrs. Ruth)

Kyoto University, Kyoto, Japan: (Through Dr. Kunio Iwatsuki) 77 ferns from Japan and the Ryukyu Islands (243671, 247614, exchanges); (through Dr. M. Tagawa) 366 phanerogams, 10

grasses, and 164 ferns (242966, 246297, exchanges).

Kyushu University, Fukuoka, Japan: (Through Dr. Juichi Yanagida) rare fossil from the Mississippian of Japan (246119).

Laboratoire de Parasitologie, Dakar, Senegal: (Through Dr. E. Abonnenc) 24 mothlike flies (243452).

Lackey, Prof. J. B., Gainesville, Fla.: 2 protozoa (237996).

Ladd, Dr. Harry S., Washington, D.C.: 125 marine mollusks from Guadalupe Island, Mexico (242591). (See also Interior, U.S. Department of the)

Laffoon, Dr. Jean L., Ames, Iowa: 83 fungus gnats, including holotypes, from North America (246784, 247352).

Laird, Dr. Marshall (See McGill University)

Lake County Historical Society, Mentor, Ohio: (Through Western Reserve Historical Society) 12 objects associated with the funeral of President James A. Garfield and a Victorian bed used in his home (242158).

Lakela, Dr. Olga (See South Florida, University of)

Lam, Prof. H. J. (See Rijksherbarium)

Lambrecht, Stephen, Newark, N.J.: 6 political cartoons (243897).

Land, Dr. Edwin (See Polaroid Corp.)

Landis, John, West Orange, N.J.: (Through Sidney D. Haas) 6 distinctive insignia collected by donor (245086).

Lane, Lt. Col. Mary C. (See Defense, U.S. Department of)

Lapham, Dr. Davis M. (See Pennsylvania, State of)

Laredo Junior College, Laredo, Tex.: (Through Dr. William L. McCart) 5 phanerogams and 89 grasses from Texas (242056).

Latham, Mrs. Marte, Pucallpa, Peru: Preserved frogs, 118 mollusks, 4 marine invertebrates, 4 insects, and a live turtle from Colombia (243744).

Latham, Roy, Orient, N.Y.: 6 phanerogams (245944, 245946).

Latshaw, Warren, New Orleans, La.: Philatelic cover commemorating the

150th anniversary of the first mail carried by steamboat on the Mississippi River (245618).

Latshaw, William A. (See Bethlehem Steel Co.)

Laudon, Dr. Lowell R., Madison, Wis.: 37 brachiopods from the Permian of Alaska (242958).

Laurence, Mrs. John C., Poughkeepsie, N.Y.: 3 pairs of spectacles, case and chain (246669).

Lawrence College, Appleton, Wis.: (Through Dr. W. F. Read) 1,547-gram Smithville, Tenn., meteorite (247564).

Layng, F. C. (See Talon, Inc.)

Leahy, Sheridan Michael, Bethesda, Md.: 5 miscellaneous Naval and Marine Corps items from Spanish-American War (247874).

Leaply, Charles, Washington, D.C.: Stromberg carburetor (244241).

Lear, King, Silver Spring, Md.: U.S. military dress cap, ca. 1869 (242996).

Leatherman, Jeanette, Washington, D.C.: Man's hand-woven nightshirt (242740).

Leatherman, Mrs. Sylvia B., South El Monte, Calif.: 4 cultivated ferns (244268).

LeClair, Mrs. Mary, West Richfield, Ohio: 3 pairs of spectacles said to have belonged to John D. Rockefeller, Will Rogers, and Marie Dressler (245217).

Le Collège Cévenol, Chambon-sur-Lignon, Haut-Loire, France: (Through Pasteur Edouard Theis) set of Gospels in French originally owned by B. B. Comegys (241634).

Lederle Laboratories, Pearl River, N.Y.: (Through Dr. Benjamin W. Carey) 3 packages of Orimune oral polio vaccine (243486).

Leech, Dr. Hugh B., San Francisco, Calif.: 2 water scavenger beetles, paratypes, and 3 moths from North America (242098, 247973).

Leeds, University of, Leeds, England: (Through Dr. W. A. Sledge) 23 ferns from Ceylon (241241).

Legg, Caroline E., Alexandria, Va.: 7 items of 19th-century costume, doll, and a doll's chair and clothing (243523, 243871).

Lehman, Manfred R., New York, N.Y.: 8 miscellaneous mint stamps of Ghana and Nigeria (247486).

Lehman, Marshall, Tampa, Fla.: Table of the mid-19th century (244904).

Leingang, John, Los Angeles, Calif.: 2 precanceled stamps of Bong, Washington, showing normal and error on the 1-cent Presidential issue of 1938 (245470).

Lemke, Dr. Richard W. (See Interior, U.S. Department of the)

Lentz, Leonard J. P., Baltimore, Md.: 16 early hand tools (247999).

Leonardi, Prof. Piero (See Istituto Geologico dell'Università di Ferrara)

Lepper, Edna S. (See Massachusetts General Hospital)

LeRoy, Dr. Duane O., New Orleans, La.: 6 ostracods, including holotypes (247216).

Lesser, Frederick H., Newark, Del.: 2 shrews from Delaware (243752).

Lesser, Mrs. Lawrence, Chevy Chase, Md.: 2 side chairs, a rocking chair, and 10 engravings by Amos Doolittle (245696).

Levi, Dr. Herbert L., Cambridge, Mass.: Centipede from Tasmania (246686).

Levinson, Dr. A. A. (See Gulf Research and Development Co.)

Levinson, Meyer A., Brooklyn, N.Y.: World War I safety razor (247766).

Levy, Pierre-Paul, Mulhouse, France: Inkstand commemorating U.S. and Czechoslovakian relations at the end of World War II (242233).

Lewis, Dr. Alan G., Durham, N.H.: 17 copepod crustaceans (241991).

Lewis, Dr. D. J., London, England: 28 black flies (244595).

Lewis, Dr. John B. (See McGill University)

Lewis, Orian L. (See State Historical Society of Colorado, The)

Libby, Mrs. Paul, Alexandria, Va.: Photograph of donor's father and 2 infant's shirts, mid-19th century (242989).

Library of Congress, Washington, D.C.: Leather-bound trunk with journal of Federal Convention of 1787 and

papers relating to convention (242706); 291 items of campaign paraphernalia and miscellaneous buttons related to Woman Suffrage (242991); (through William E. Davis) microfilm camera (243462); (through Nathan R. Eihorn) medal struck in commemoration of the centenary of the Lenin State Library (244110); (through L. Quincy Mumford) 1,225 miscellaneous U.S. and foreign philatelic covers from the Whitlock, Dewey, and Cushing correspondence, 28 cut square German postal markings and 44 covers of 1916-18 (243018, 244960); (through Jennings Wood) brass letter holder and brass inkwell and stand (244699).

Liebermann, Dr. Jose, Buenos Aires, Argentina: 2 grasshoppers, metatypes, from Chile (243579): 39 insects from South America (244036, exchange).

Lieutaud, Albert, New Orleans, La.: 37 U.S. Civil War covers and letters and 4 19th-century foreign covers (242277).

Ligas, Frank J. (See Florida, State of)

Likens, Mrs. Everett Ray, Venice, Fla.: 10 uniforms and equipment used by donor's husband during World War I (247019).

Lindberg, David, Concord, Calif.: 2 land and fresh-water mollusks from California (243547).

Lindquist, Harry L., New York, N.Y.: 1,895 U.S. and foreign first-day and souvenir covers (245704).

Lindroth, Dr. Carl H., Lund, Sweden: 25 flies from Kodiak Island, Alaska (247356); (through Dr. E. L. Bousfield) 5 amphipods from Kodiak Island (243605).

Link, Joseph, Branford, Conn.: (Through Early American Industries Assoc.) 3 19th-century hand tools (247520).

Lipman-Wulf, Peter, New York, N.Y.: Woodcut, *The Cathedral*, by donor (247023).

Littman, Lt. Col. A. A. (address unknown): (Through Sidney D. Haas) 15 distinctive insignia collected by donor (243349).

Livingstone, Dr. D. A. (See Duke University)

Locke, Jonathan, Laurel, Md.: Shell from Chincoteage Island, Va. (243402).

Locklin, Charles R., Pontiac, Mich.: 9 marine mollusks from the Caribbean and Florida (242699).

Loftin, Horace (See Florida State University)

Long, Dr. William E. (See Ohio State University)

Longhurst, Dr. A. R. (See Interior, U.S. Department of the)

Longwood Gardens, Kennet Square, Pa.: 6 phanergams and 20 ferns (244003).

Loomis, Harold F., Miami, Fla.: 8 centipedes from the U.S. (243687).

Loomis, Mrs. Van Wyck (See Doig, Mrs. Arthur H.)

Los Angeles County Museum, Los Angeles, Calif.: Cast of skull of a fossil sea lion (239837, exchange).

Louisiana, Northwestern State College of, Natchitoches, La.: Phanerogam from Guatemala collected by Dr. Hugh C. Land (244459).

Louisiana State University, Baton Rouge, La.: 21 phanerogams from Mexico (248038); (through Dr. Harold V. Anderson) 20 slides containing paratypes of Recent Foraminifera from the lower Mississippi River Delta (242680).

Louisville Water Co., Louisville, Ky.: (Through Neil Dalton) 106 linen drawings of Erasmus D. Leavitt's Louisville pumping engine (244500).

Lowe, Robert C. (See Duncan, Lillian)

Lowenstein, Ernest, New York, N.Y.: 5 postage stamps of British Guiana and Mauritius (247574).

Ludington, Morris H., Silver Spring, Md.: Specimen sheet of engine turning patterns used in the manufacture of stamps and currency (246878).

Luke, Mr. and Mrs. Daniel S., Falls Church, Va.: 7 invertebrate fossils from the Devonian of Thorn Mountain Cave, W. Va. (247617).

Lumnitz, Janice S., Flushing, N.Y.: (Through Dr. Robert M. Finks) 28 frag-

ments of crinoid stems from New Jersey (246401).

Lunds Universitet, Lund, Sweden: (Through Dr. T. Soot-Ryen) 5 fresh-water bivalves from Chile (242598).

Lurton, Sallie E., Washington, D.C.: Wedding underwear from trousseau of 1902 (243102).

Luttermoser, Harry, Kensington, Md.: 4 fresh-water mollusks from Lebanon (247475).

Lyko Mineral and Gem, Inc., El Paso, Texas: Magnetite from New Mexico (245310).

Lyman, Frank, Dozier, Ala.: 324 marine and fresh-water mollusks from Alabama and Australia (230306, 242880).

Lynch, Dr. James E., Seattle, Wash.: 48 fairy shrimps, neotype and paraneotypes (246774).

Lyon, Rowland (See Thompson, Mrs. C. M.)

Lytle, Mrs. Myrtle V., Clyde, Ohio: 3 Mexican silver coins and 2 U.S. Indian head cents (246523).

M & E Marine Supply Co., Camden, N.J.: (Through E. W. Edmund) MARVEL underwater camera case (243352).

Macdonald, Alfred (See Recordak Corp.)

MacDougall, Thomas, Tehuantepec, Oaxaca, Mexico: 4 phanerogams from Mexico (244853, 245564).

MacDowell, Clara P. (See McDowell, Robert William)

MacFarlane, Mrs. Omie Peter, Kansas City, Mo.: Raffia fiber cloth from the Congo (243652).

MacKenzie, Warren L., Baltimore, Md.: First-day cover bearing U.S. 4-cent Mercury postage stamp (245890).

Macurda, Dr. Donald B., Jr., Madison, Wis.: 250 brachiopods from the Ordovician of Grant Co., Wis., and 3 invertebrate fossils, syntypes, from Nevada (245952, 247624).

Magill, J. J., Brielle, N.J.: Iron ring of World War II, found on the New Jersey coast (243000).

Magner, Mr. and Mrs. Daniel F., Washington, D.C.: 38 ceramic and bronze objects from Iran (245305).

Magtoto, Eduardo (See Defense, U.S. Department of)

Mahgoub, Dr. Osman Moharram (See Geological Museum)

Mainieri, Eng. Calvino (See Instituto de Pesquisas Tecnológicas)

Major, J. D., Belton, S.C.: Grain binder (242427).

Malaya, Federation of: *Geological Survey*: (Through Dr. B. H. Flintler) yttritungstite from Malaya (239523, exchange).

Malkin, S., Washington, D.C.: Fluting iron (243360).

Mallos, Alexander, Takoma Park, Md.: RCA projection television receiver (242717).

Maloney, W. B. (See Colt's Patent Fire Arms Manufacturing Co.)

Mamay, Dr. S. H. (See Interior, U.S. Department of the)

Mamedov, Dr. A. B. (See Azerbaidzhan Institute of Petroleum Chemistry)

Manara, L. J. (See American Cyanamid Co.)

Mandaville, James P., Jr., Dhahran, Saudi Arabia: 185 potsherds and figurine fragments and a copper hoe from Saudi Arabia (247716).

Manfredini, Mrs. Anna (See Galli, Mr. and Mrs. Angelo)

Mangor, Elovius (See Norway, Government of)

Mangum, Raymond (address unknown): Human skull found near Accokeek, Md., by donor (246850).

Manjo, Dr. Guido, Boston, Mass.: Brass spike believed to be from U.S.S. *New Hampshire* (243890).

Mann, William H. (See E. Leitz, Inc.)

Manning, Albert H., New York, N.Y.: 2 bronze medals, a plaque commemorating famous chemists, and an etching of Prof. F. Haber (243475, 243809).

Manning, Raymond B. (See Interior, U.S. Department of the, and Miami, University of)

Manno, Mr. and Mrs. Vincent J., New York, N.Y.: 9,756 presidential issue precancels and 1,644 defense and Win-the-War issue precancels (245481).

Mansfield, Alice Weber (See Pi Beta Phi Fraternity)

Manson, Haskel G., Rochester, N.Y.: Philatelic cover bearing postage stamps of the German occupation of Poland, Sept. 17, 1941 (247976).

Mansueti, Dr. Romeo, Solomons, Md.: 5 amphipods (242884).

Mantel, Dr. W. P., Wageningen, Netherlands: 3 thrips from the Netherlands (243411, exchange).

Marble, Mrs. Adele (See Thomas, Mrs. Edward)

Marchman, Watt P. (See Rutherford B. Hayes Library and Museum, The)

Marcott, Mrs. Edna, St. Petersburg, Fla.: 43 marine mollusks and 224 land snails from Florida (230601, 241097, 244545).

Marine Laboratory, Aberdeen, Scotland: (Through Dr. Z. Kabata) 18 parasitic copepods (237807, exchange).

Marks, Dr. E. N., St. Lucia, Brisbane, Australia: 3 mosquitoes from Australia (247722).

Marks, Dr. Jay G., Denver, Colo.: 208 minute marine mollusks from Venezuela (199208).

Maroy, M. A., Miami, Fla.: Pair of pantalettes handmade in Lyons, France, 1850 (245183).

Marsden, Mrs. Linda (See Galli, Mr. and Mrs. Angelo)

Marsh, Harry S. (See Sioux Falls Army Store)

Marshall, Byron C., Hot Springs National Park, Ark.: 148 miscellaneous insects from Arkansas (242781, 247733).

Marti, Mrs. Ann, Balboa, Canal Zone: 11 marine mollusks from Panama (226260).

Martin, Mrs. Hemme, Gilroy, Calif.: 24 specimens of chalcedony after halite from Kansas (246677).

Martin, Thomas Howard, Clovis, N. Mex.: Medal commemorating the Golden Anniversary of the State of New Mexico, 1962 (244390).

Martin L. Erhmann Co., Beverly Hills, Calif.: 4 bowls and 129 minerals from various localities (230720, 243794, exchanges).

Martinez, Federico, Monterrey, Mexico: Mexican 1-peso note (247027).

Martínez, Dr. Maximino, Mexico, D.F.: Phanerogam, isotype (247817). (See also Herbario Nacional del Instituto de Biología)

Martini, Dr. E., La Jolla, Calif.: 8 new species of calcareous nannoplankton from the Experimental Mohole drilling (243339).

Martof, Dr. Bernard S. (See Georgia, University of)

Maryland, University of, College Park, Md.: Mammals from Ruanda-Urundi, Africa (247046); (through Thomas Savage) 610 freshwater fishes from Maryland and Pennsylvania (241920); (through Dr. Robert Traub) 453 mammals from West Pakistan (244315); mammals and 6 birds from Mexico (246019).

Maryland Academy of Sciences, Baltimore, Md.: (Through Nigel O'C. Wolff) 3 minerals from Canada, England, and the U.S.S.R. (244470, exchange).

Maryland Archaeological Society, Baltimore, Md.: (Through Douglas Woodward) 24 Indian artifacts possibly from a Revolutionary-period site (246872).

Maryland State Roads Commission, Baltimore, Md.: (Through G. Bates Chaires) cast-iron milepost, ca. 1840 (247888).

Mason, Dr. Brian (See American Museum of Natural History)

Mason, Dr. Herbert L. (See California, University of)

Massachusetts General Hospital, Boston, Mass.: (Through Edna S. Lepper) bedside table from a ward in the Old Bulfinch Building, ca. 1870 (244762).

Massachusetts Institute of Technology, Cambridge, Mass.: (Through Dr. Harold E. Edgerton) underwater strobe light (242703).

Massachusetts Institute of Technology, Cambridge, Mass., and **Woods Hole Oceanographic Institution**, Woods Hole, Mass.: (Through Dr. Harold E. Edgerton) deep sea stereo camera (242079).

Massie, Capt. E. L. (See Defense, U.S. Department of)

Massmann, William H. (See Virginia, State of)

Matejka, Dr. James J., Jr., Chicago, Ill.: Philatelic cover dated 1883, bearing 3-cent green U.S. stamp, and post-marked Sitka, Alaska (245805).

Mather, Bryant, Jackson, Miss.: 4 lacewings and 31 caddis flies from Mississippi (245202, 243865).

Mathews, Mrs. P. H. (See Florence Crittenton Bazaar)

Mathis, Henry W., Washington, D.C.: Franklin sedan, 1923 (244503).

Matthews, Allan F., Washington, D.C.: Collection of archeological material from Yemen (229308).

Matthews, Robert A. (See California, State of)

Matthews, W. C., Morehead City, N.C.: (Through Josiah W. Bailey) model of the Sprintsail skiff *Alma* (245326).

Mattusch, Dr. and Mrs. K. B., Clifton, Va.: Shaman boat with sails and cross from Korea (242339).

Mauritania, Government of: *Philatelic*: 3 first-day covers of Mauritania (247791).

Mauritius Institute, Port Louis, Mauritius: (Through Dr. J. Vinson) 48 beetles, paratypes, from Mauritius and Reunion (247015, exchange).

May, Mrs. Herbert A., Washington, D.C.: Napoleon diamond necklace and a leather and velvet box (244520); Brussels needlepoint and bobbin applique lace collar, and a 19th-century gros point de Venise cape (244655).

May, James, Ogdensburg, N.J.: (Through Richard Hauck) zincite-willemite from Sterling Hill, N.J. (245307).

Mayer, Dr. A. G., Princeton, N.J.: 354 hard corals (244643).

Mayer, Mrs. Eugene S., and Douglass, Mrs. A. C., Annapolis, Md.: 17 items of American costume and a pair of eyeglasses, 19th and 20th centuries (242327).

Mayer, F. M. (See Continental-Emsco Co.)

Maytrott, Warren W., Vineland, N.J.:

184 precanceled U.S. postage stamps (245622).

McAllister, Dr. D. E. (See Canada, Government of)

McCain, John C. (See Virginia, State of)

McCall, Francis J. (deceased): Citation stamp album, 2 examples of circular postage rates, and 160 miscellaneous U.S. and foreign philatelic covers (245616, 246797, 247650).

McCannon, Col. J. E., Bradenton, Fla.: Manchu costume from Peking, China, and coat and boots from Outer Mongolia (235200).

McCart, Dr. William L. (See Laredo Junior College)

McCarthy, Mrs. Eileen (See Smithsonian Institution)

McCarthy, Robert B., River Edge, N.J.: Coin, 7 currency notes, and 60 mint stamps from Indonesia (243588, 245610).

McCarty, Col. William A., Omaha, Nebr.: Marine mollusk from Okinawa (242700).

McCaul, Dr. William E. (See Virginia, State of)

McClory, Mrs. Robert W., Urbana, Ill.: 8 pieces of embroidery from China (244217).

McCloskey, Lawrence R., Durham, N.C.: Fish from North Carolina (245348).

McClure, Dr. Elliott, Pahang, Malaya: 237 miscellaneous insects from Malaya (244747).

McClure, Dr. F. A., Washington, D.C.: 64 miscellaneous bamboo specimens (244855).

McComas, Mrs. Frederick W., Washington, D.C.: Woman's silk dress, ca. 1877, and black mitt, mid-19th century (244370).

McConnell, Dr. Duncan (See Watanabe, Dr. Takeo)

McCormick-Goodhart, Leander, Alexandria, Va.: Collection of 74 plaster casts of Admiral Vernon medals preserved in the British Museum and 37 brass, copper, and silver tokens, medals, and coins, worldwide (245321, 245783).

McCrosky, Dr. Richard E. (See Smithsonian Institution)

McCullough, Dr. Herbert A. (See Howard College)

McDermott, Frank A., Wilmington, Del.: 2 beetles, holotype and allotype, from Bolivia (246783).

McDonald, William A. (See Health, Education, and Welfare, U.S. Department of)

McDowell, Robert (See McDowell, Robert William)

McDowell, Robert William (deceased): (through Clara P. MacDowell, Dr. Eleanor VanDyke Pearson, Mrs. Don C. Stransberry, and Robert McDowell) model of ship of the line *Ohio* built by donor (242362).

McElwee, Lt. John J., Palmyra, Pa.: World War I flight helmet and goggles (247167).

McFadden, Gilbert, Elizabethtown, Ky.: (Through Sidney D. Haas) U.S. Army distinctive insignia of the 28th Field Artillery Battalion (245087).

McFarlin, James B., Bradenton, Fla.: 7 cultivated ferns (245686).

McGean, John, Los Gatos, Calif.: Ship building plans for *H.M.S. Centurion* (243889).

McGee, Rex O., Dallas, Tex.: 5 items of U.S. revalued postal stationery (242264).

McGill University, Montreal, Canada: *Bellairs Research Institute*: (Through Dr. John B. Lewis) 60 sea anemones, 3 hermits, and 137 marine invertebrates (230308, 237515, 238329, 242106). *Macdonald College*: 14 copepods, including 6 syntypes (239974); (through Dr. Marshall Laird) 2 slides of protozoans (232143).

McGinty, Thomas L., Boynton Beach, Fla.: Holotypes of 3 new species of marine mollusks from Florida and the West Indies (245663).

McGlauchlin, David C. (See Interior, U.S. Department of the)

McGuinness, Al, Eugene, Ore.: 30 minerals from various localities (243325, 243723, 244620, 246117, exchanges).

McKee, James (See Quincy Mining Co.)

McKendree Methodist Church, Washington, D.C.: (Through Charles Sutton) folding ladder, 1872 (244657).

McKeown, James Preston, Jackson, Miss.: 5 trematode worms from Mississippi (246666).

McLain, Mr. and Mrs. M. G., Clackamas, Ore.: Labradorite and sagenitic quartz from California and Oregon (243849).

McLaughlin, Pat (See Interior, U.S. Department of the)

McLean, James H., Stanford, Calif.: Sea anemone (241464).

McMullin, Dr. John G., and Parker, Eugene K., Schenectady, N.Y.: "Brown Bess" musket believed to be ca. 1760 (245581).

McVaugh, Dr. Rogers (See Michigan, University of)

Mead, Dr. Giles W. (See Harvard University)

Mearns, David C., Chevy Chase, Md.: Woman's nightgown and petticoat, 19th century, and a pair of man's sunglasses (242616); 37 political campaign and inaugural items (242990).

Meehan, Ruth L., Washington, D.C.: Jenny Lind album (246874).

Meeter, Leonard C., Washington, D.C.: Statuette from Africa (245767).

Mehta, Dhirubhai, Bombay, India: 24 first-day covers and 22 mint postage stamps of India (242127, 243277, 244959).

Meininger, Ronald E., Chevy Chase, Md.: 12 tags with stamps affixed from diplomatic mail (245467).

Melder, Keith E., Washington, D.C.: Scrapbook with clippings concerning Maryland and other local, state and national political campaigns, 1895-97 (246531).

Melson, William, Princeton, N.J.: 2 sillimanite specimens from Benson Mines, N.Y. (244621).

Meltzer, Doris, New York, N.Y.: 18th-century stipple etching (245965).

Melville, Richard, Washington, D.C.: Buddhist monk's robe, modern cigarette canister and lid, rice carrying and stor-

age basket, rice basket, 2 knives from Cambodia, and 2 straw hats from Thailand (242951).

Mencken, August, Baltimore, Md.: Bone and ivory umbrella swift (247372).

Mennehan, John F. (See Fuller and d'Albert, Inc.)

Mentch, G. W. (See Eastman Kodak Co.)

Mentzer, R. D. (See Defense, U.S. Department of)

Merrell, Theodore R., Jr. (See Interior, U.S. Department of the)

Metcalf, Mrs. A. C., Dexter, Kans.: 235 fossils from the Permian of Kansas (246206).

Metcalf, Artie L., Washington, D.C.: 2 crayfishes (242505).

Mexico, Government of, Mexico, D.F.: (Through Rafael Murillo Vidal) embossed album containing stamps commemorating the visit of President Kennedy to Mexico (243479).

Meyer, Dr. D. E. (See Botanischer Garten und Museum)

Meyer, Dr. Frederick G. (See Agriculture, U.S. Department of)

Miami, University of, Miami, Fla.: (Through Samuel H. Gruber) 32 parasitic copepods (241627); (through Raymond B. Manning) 11 sea anemones, holotype and 2 paratypes of a shrimp, and 2 stomatopods, holotypes (238272, 239993, 242631); holotype of a stomatopod (245925, exchange); (through Donald R. Moore) 11 amphipods (242831); (through Dr. Anthony J. Provenzano, Jr.) 3 hermit crabs, holotypes and allotype, from Florida (233448); (through Dr. John E. Randall) 17 sea anemones (230838); (through Dr. C. Richard Robins) fish, paratype (244247); (through Bernard J. Yokel) 26 parasitic copepods (241487).

Michigan, University of, Ann Arbor, Mich.: Steel engraving of James Buchanan Eads, C.E. (245216); (through Dr. L. C. Anderson) picture frame with components of Edison storage battery (243600); (through Dr. William S. Benninghoff) 82 microscope slides of pollen (244615, 244618, exchanges); (through

Prof. Orlan W. Boston) profilograph, ca. 1930 (244228); (through Dr. Claude W. Hibbard) amphipod and 3 fossil crayfishes (245149); (through Dr. Rogers McVaugh) 1,203 grasses from Queensland, Australia (247549); (through Dr. Robert R. Miller) 3 leeches, 334 shrimps, 99 crayfishes, and 28 crabs (239994); (through Dr. William R. Murchie) 8 earthworms, including type (242729, 243642); (through Dr. Henry van der Schalie) 11 mollusks from Tropical America (221817, exchange). *Herbarium*: 268 phanerogams, 339 grasses, and 17 ferns (242252, 244004); 342 phanerogams, 4 grasses, and a fern from Central America and Mexico (246674, exchange).

Michigan College of Mining and Technology, Houghton, Mich.: (Through Dr. S. Williams) calumetite, type, from Houghton County (246890, exchange).

Michigan State University, East Lansing, Mich.: 60 phanerogams and 152 grasses from southern U.S. and Guatemala (212091, 242074, 245542); 185 phanerogams, 49 grasses, and 4 ferns from Mexico, collected by Dr. John H. Beaman (242251, exchange).

Middlekauf, Dr. W. W., Berkeley, Calif.: (Through Dr. H. F. Strohecker) 2 grasshoppers from the U.S. (246785).

Mid-South Earth Science Club (See Hall, Margaret Jane)

Mikoda, Philip M. (See AnSCO)

Miles, G. D., Portland, Ore.: Customs receipt, 1801, and a woman-suffrage card, 1898 (247793).

Millar, Dr. John R. (See Chicago Natural History Museum)

Miller, Dr. Carl F., Washington, D.C.: 29 land snails from Washington, D.C. (242590).

Miller, Mrs. George (address unknown); (Through Mildred Winthor) 19th-century quilt (244077).

Miller, Mrs. Henry, Washington, D.C.: Ceramic lamp and basketry model from Laos (244330).

Miller, Lee D., Pittsburgh, Pa.: 2 moths, paratypes, from Arizona (247732).

- Miller, Peter J. (See Glasgow, University of)
- Miller, Ralph L. (See Interior, U.S. Department of the)
- Miller, Dr. Robert R. (See Michigan, University of, and Wilimovsky, Dr. Norman J.)
- Mills, John G. (See Thos. Mills & Bro., Inc.)
- Mills, Lewis E., Mechanicsburg, Pa.: Lincoln cent, 1960, small date (245611).
- Minard, J. P., Washington, D.C.: Jumping mouse from New Jersey (244867).
- Ministère de l'Agriculture et du Paysannat, Tananarive, Madagascar: *Service des Eaux et Forêts*: 50 wood specimens from Madagascar (242962, exchange).
- Ministerio de Agricultura, Lima, Peru: (Through Norma Chirichigno F.) 1,141 fishes from Peru (247044).
- Ministerio de Agricultura y Cria, Caracas, Venezuela: *Instituto Botánico*: 47 grasses and 98 phanerogams from Venezuela (241483, 242832, 242965, 244331, 244458, 244464, 245945, 246637); (through Drs. Leandro Aristeguieta and Dr. Julian A. Steyermark) 12 miscellaneous phanerogams from Venezuela (245446); (through Dr. Julian A. Steyermark) 35 phanerogams and 213 ferns from Venezuela (242248, 242858, 244704).
- Minnesota, University of: *Duluth Campus*: (Through Dr. Pershing B. Hofslund) 2 mounted whooping cranes (247009, exchange); (through Dr. Tibor Zoltai) pre-Cambrian algae from Biwabik formation of Michigan (241612, exchange).
- Mishler, Clifford, Vandalia, Mich.: (Through Token and Medal Society) 2 Civil War Centennial medals, 4 canceled dies of the medals for the Alaska-Hawaii Statehood and Astronaut John H. Glenn, Jr. (247481, 247482).
- Misko, Mrs. George, Chevy Chase, Md.: U.S. saber, ca. 1800-15 (242998).
- Missouri, University of, Columbia, Mo.: (Through Col. Clarence M. Jenni) wightmanite partly altered to szaibelvite and a new calcium carbonate from Crestmore, Riverside Co., Calif. (242942, exchange).
- Missouri Botanical Garden, St. Louis, Mo.: 1,068 phanerogams, 52 grasses, and 62 ferns from Panama and Peru (245940, exchange); 2 phanerogams from Ecuador (246778); (through Dr. James A. Duke) 4 phanerogams from Panama (242471); (through Dr. Robert E. Woodson, Jr.) 53 phanerogams and 148 ferns from Ecuador, Panama, and Peru (242057, 246974).
- Mitchell, Donald, Honolulu, Hawaii: Tapa groover, 2 plaster casts and a wood model from Hawaii (242335).
- Mitchell, Terry (See Frick Co.)
- Mitchell, Mrs. W. A. (See Sewing Group of the Emmanuel Episcopal Church)
- Mixson, Mrs. Mary Ann Shuttleworth (See Kinney, Mrs. Margaret Shuttleworth)
- Moe, Martin (See Florida, State of)
- Moffett, E. T. (See Bethlehem Steel Co.)
- Moffett, Rear Adm. William A., London Bridge, Va.: 119 miscellaneous items relating to the naval career of donor's father, Rear Adm. William A. Moffett (248048).
- Moharrum, Dr. Osman (See Geological Museum)
- Molina, Dr. Antonio (See Escuela Agricola Panamericana)
- Moloney, William B., Arlington, Va.: 20 U.S. cartridges (243900).
- Monaco, Government of: *Principauté de Monaco*: (Through H. Chiavassa) 62 mint postage stamps of Monaco (243020, 245877).
- Moneymaker, Mrs. Dean, St. Louis, Mo.: Handbag, pair of gold earrings, and a chiffon fan of the 1880's (243742).
- Monod, Dr. Th. (See Institut Français d'Afrique Noire)
- Montana State College, Bozeman, Mont.: 10 grasses from Montana (245191).
- Monteiro, Fernando (See Banco do Brasil, S.A.)
- Montero O., Dr. Gilberto, Temuco, Chile: 24 phanerogams from Chile (242697, 244514).

- Montgomery, Phil** (See Halliburton Co.)
- Montgomery County Police**, Bethesda, Md.: 3 human skulls and 1 lot of bones from Montgomery Co., Md. (247341).
- Moody, Adele**, Washington, D.C.: Pair of French vases, Empire period, and a sterling silver soup ladle, 1793 (245701).
- Moore, Sen. Charles C.** (See Citizens of Greenville and Spartanburg, S.C.)
- Moore, Donald R.**, Miami, Fla. (Through Dr. Frederick M. Bayer) 25 crustaceans (240507). (See also Miami, University of)
- Moore, Earl E.**, Wynnewood, Pa.: 101 miscellaneous U.S. and foreign covers, 3 19th-century newspaper clippings, a photograph of the first stage depot at Bridgeton, N.J., 1794, and a 10-subject sheet of early 19th-century Bank of the U.S. check blanks (244958, 245605).
- Moore, Earl E.**, Wynnewood, Pa., and **Moore, Kenneth R.**, White Bear Lake, Minn.: 22 post cards, covers, and associated philatelic memorabilia, and letters patent signed by President Woodrow Wilson, presented in memory of Stephen K. Nagy, Jr. (242828, 245798).
- Moore, Dr. Harold E., Jr.** (See Cornell University)
- Moore, Mrs. Helena Wetherald**, and **Wetherald, Dorothy**, Sandy Spring, Md.: Cast-iron box stove (247961).
- Moore, Kenneth R.** (See Moore, Earl E.)
- Moravian Museum V Brně**, Brno, Czechoslovakia: (Through Dr. T. Kruša) 140 minerals from various localities (243328, exchange); model of the Sazovice, Czechoslovakia, meteorite (245772).
- Moreau, Dr. Jules** (See Institut Géologique de l'Université de Louvain)
- Morgan, Clarence**, Chilmark, Mass.: Partial skull of fossil walrus from off Noman's Land, Mass. (247562).
- Morgan, Leonard**, Haddonfield, N.J.: 2 dickites from Pennsylvania (245309).
- Morley, Col. and Mrs. A. R.**, Downey, Calif.: Small pottery jar from Costa Rica (243042).
- Morley, Capt. Sonya M.**, Pheonixville, Pa.: Gourd rattle from the San Blas Cuna Indians of Panama (243836).
- Morrah, Sen. P. Bradley** (See Citizens of Greenville and Spartanburg, S.C.)
- Morris, Elkan J.**, Tucson, Ariz.: 153 reptiles and amphibians, 14 fishes, and 5 crabs from Mexico and Panama (242039, 245589).
- Morris, Henry C.**, Washington, D.C.: 7 silver ores from Nevada and molybdenite from New Mexico (245306).
- Morris Loeb Bequest Fund, Smithsonian Institution**: 5 meteorites from Kansas, Texas, and Wisconsin (242479).
- Morrison, Dr. John T.**, Washington, D.C.: 20th-century fan (242507).
- Morse, Frank E.**, Mount Vernon, Va.: 25 copper coins of the world (245100).
- Morton, Dr. C. V.**, Washington, D.C.: 809 photographs of phanerogams, types, from Europe and 148 ferns, types, from Munchen, Germany (247145, 247750). *Made for the Smithsonian Institution*: 5,269 photographs of ferns, types (247922).
- Moseley, Ernest, Jr.** (See Moseley Metal Craft Co.)
- Moseley Metal Craft Co.**, West Hartford, Conn.: (Through Ernest Moseley, Jr.) spinning lathe and samples, and metal notcher and samples (242979).
- Mosher, Mrs. Helen Augusta**, Estate of: (Through State Street Bank and Trust Co.) 839 pieces of pottery and porcelain (240968, bequest).
- Mosler, Mrs. Linnie A. Kirk**, Philadelphia, Pa.: 153 military items, 1880 through World War I (247735).
- Motec Industries, Inc.**, Hopkins Minn.: 1918 Moline-Universal tractor with two-bottom plow attached and a horsedrawn two-wheel sulky plow (242414).
- Motz, Chris** (See Havre de Grace Marina)
- Moyd, Louis**, Yonkers, N.Y.: Dunite from North Carolina (247563); (through Dr. Frederick H. Pough) spodumene from Afghanistan (246680).
- Mueller, Prof. G.**, Concepcion, Chile: Terrestrial glass from Chile (246091, exchange).

Muesebeck, Dr. Carl F., Washington, D.C.: 20 miscellaneous foreign philatelic covers bearing postage stamps (247651).

Muhlenberg College, Allentown, Pa.: 543 phanerogams, 46 grasses, and 31 ferns from Pennsylvania (244338).

Mullane, Mrs. John, Cincinnati, Ohio: (Through Herbert F. Koch) locomotive headlight, ca. 1876 (245637).

Mullins, Gene, Mt. Rainier, Md.: Can of axle oil (247995).

Mumford, L. Quincy (See Library of Congress)

Munn, Walter, Cambridge, Mass.: 2 crustaceans and a specimen of the Sterling, N.J., meteorite (244817, 246859).

Murchie, Dr. William R., Flint, Mich.: Holotype and 2 paratypes of earthworms (242551). (See also Michigan, University of)

Murillo, Maria Teresa (See Instituto de Ciencias Naturales)

Murphy, Mrs. Priscilla, Sanibel Island, Fla.: 64 mollusks and barnacles and 7 echinoids from the Pleistocene of Sanibel Island (244632).

Murrow, Edward R. (See United States Information Agency)

Murrow, W. R., Independence, Kans.: 2 oil well time bombs (243597)

Museo de Historia Natural "Javier Prado," Lima, Peru: 10 phanerogams from Peru collected by Oscar Tovar (244335); (through Dr. Ramón Ferreyra) 13 phanerogams from Peru (245503).

Museu Nacional, Rio de Janeiro, Brazil: (Through Dr. Fernando Dias de Avila-Pires) paratype of a rodent (245459).

Museum National d'Histoire Naturelle, Paris, France: 104 phanerogams and a fern (247920, exchange); (through Prof. André Aubreville) 1,003 miscellaneous ferns, mostly from China (247613, exchange); (through Mlle. Simonne Caillère) 29 minerals from France and Madagascar (243327, exchange).

Muzzrole, Richard J., Washington, D.C.: English scratch-blue saltglaze

teacup, ca. 1765 (245598); 2 British and Spanish buttons (247361).

Myers, Dr. George S. (See Stanford University)

Nagatomi, Dr. Akira, Uearata-cho, Kagoshima, Japan: 18 flies from Japan (245090, exchange).

Naidin, Dr. D. P., Moscow, U.S.S.R.: (Through W. A. Berggren) 13 Cretaceous ammonites from U.S.S.R. (246302, exchange).

Nakahara, Dr. Waro, Tokyo, Japan: 29 brown lacewings from Japan (246788).

Namegata, Tomitaro, Chiba-ken, Japan: 11 ferns from Japan (240825, exchange).

Nancy, The Viscountess Astor, London, England: Porcelain bust of a French soldier (243219).

Nash, Carolyn Ryan, Washington, D.C.: 11 pieces of postal stationery, booklet on visit of Far Eastern Squadron to Yokohama in 1905, and an album of scenic post cards (242398).

National Aeronautics and Space Administration, Washington, D.C.: Film viewer, 2 cameras and 2 Strobolux lamps (247173, 247797); (through Leo Abernathy) puma from Bolivia (243343); (through Geri Ann Armstrong) 2 Project Mercury covers canceled "first day of issue" and autographed by John H. Glenn, Jr. (245211).

National Aeronautics and Space Administration Fund, Smithsonian Institution: Tektites from Thailand (242481, 244859).

National Audubon Society, New York, N.Y.: (Through Carl W. Bucheister) Kent pattern broadaxe, late 19th century (247885).

National Institute of Science and Technology, Manila, Republic of the Philippines: (Through Dr. Patrocino S. Santos) 40 lichens from the Philippines (244132).

National Lumber Manufacturers Association, Washington, D.C.: (Through Mortimer B. Doyle) scale model of a contemporary school building (246217).

National Museum, Manila, Republic of the Philippines: 102 phanerogams,

3 grasses, 2 ferns, and 2 cryptogams (243668, exchange).

National Savings and Trust Co. (See Gargiulo, Joseph A.)

National Trust for Historic Preservation, Washington, D.C.: (Through Robert G. Stewart) 111 items of wearing apparel and miscellaneous objects associated with President and Mrs. Woodrow Wilson (243594).

National and University Institute of Agriculture, Lev Hasharon, Israel: (Through Martin Chudnoff) 12 microscope slides of woods from Israel (247-123, exchange).

Natural History Museum, San Diego, Calif.: 40 phanerogams and 8 grasses from Baja California (243313); (through Emory P. Chace) 3 polychaete worms and 2 shrimps (221875).

Naturhistorisches Museum, Vienna, Austria: (Through Dr. Karl H. Reehinger) 100 cryptogams (242687, exchange).

Naylor, Mrs. Cecil H., Silver Spring, Md.: Pieced and stuffed work quilt, ca. 1812 (242609).

Neal, Oscar (See Treasury, U.S. Department of the)

Nebraska, State of: *Division of Sanitation*: (Through Dr. William F. Rapp, Jr.) 25 slides of ectoparasites, including species of fleas from the U.S., and 5 crayfishes (244864, 246166).

Neill, M. Agnes, Washington, D.C.: 15 examples of costume and engraved greeting cards, 19th and 20th centuries (247068).

Nelson, Dr. Ira S. (See Southwestern Louisiana, University of)

Nelson, Ronald, Rock Island, Ill.: 30 stamps, 7 bills, and 4 coins of Indonesia (243006, 243997).

Nelson, Mrs. W. D., Waynesboro, Pa.: Book, *The Offering of Beauty*, 1847 (246088).

Nelson Fund, Edward W., Smithsonian Institution: 5,000 miscellaneous insects from the Neotropics (248063).

Netherlands, Government of: *Netherlands Postal and Telecommunications Service*: (Through A. Hoolbaans) 24 mint postage stamps of the Netherlands

(245325, 247579). *Netherlands Postal Museum*: (through R. E. J. Weber) 2 silvered plaster reproductions of medal "Jubileumpenning van een postmeester, 1688" (242369).

Neuman, Dr. Robert B., Washington, D.C.: 50 brachiopods from the early Medial Ordovician of Kielce, Poland (242474). (See also Interior, U.S. Department of the)

Nevada, University of, Las Vegas, Nev.: (Through Dr. James E. Deacon) 153 hydroids (246587).

Neviaser, Albert E., Silver Spring, Md.: Postmaster's commission issued in 1898 to donor's father, Isaac Neviaser (246451).

Newberry, Dr. A. Todd (See Hopkins Marine Station)

Newman, Dr. Russell W. (See Defense, U.S. Department of)

New York, State of: *Conservation Department*: (Through Jack Foehrenbach) 6 marine bivalves from the south shore of Long Island, N.Y. (242063); (through Dr. John C. Poole) 3 parasitic isopods (241693); (through Dr. Richard H. Schaefer) 33 amphipods and a snail egg (242149).

New York Botanical Garden, New York, N.Y.: 315 phanerogams and 181 grasses, mostly from South America (229186, 240506, 242299, 242648, 242829, 243823, 245740, 246294); 358 phanerogams (242695, 246299, 247923, exchanges).

New York State University College of Forestry, Syracuse, N.Y.: (Through Dr. Maurice M. Alexander) sponge, holotype (246670).

Niagara Mohawk Power Corp., Buffalo, N.Y.: (Through E. B. Strowger) 1901 Riedler-Allis-Chalmers pumping engine and an 1899 Quimby screw type pump (243295).

Nicéforo María, Brother (See Instituto de la Salle)

Nichols, Thomas J., Washington, D.C.: Keystone moviegraph projector (245317).

Nickel Plate Road, Cleveland, Ohio: (Through M. B. Phipps and Allen Coun-

ty Historical Society) 2 builder's plates (244242).

Nicol, Alan H., Buffalo, N.Y.: Heyde's Aktino-Photometer, Model III (245098).

Niering, Dr. William A., New London, Conn.: 69 earthworms (240865).

Nikiforoff, Mrs. C. C., Hyattsville, Md.: Linen towel commemorating the Centennial of the U.S., 1876 (242803).

Nogelhout, Mrs. Richard, Kansas City, Kans.: Hand embroidered bobbinet bedspread, 1877-79, and an extra piece of embroidered net (242608).

Nolan, Dr. Thomas B. (See Interior, U.S. Department of the)

Nolin, John A. (See Interstate Commerce Commission)

Norris, Prof. Robert M. (See California, University of)

North, Mrs. Clayton N., Shoreham, Vt.: Revolutionary War fuse-type shell (247768).

North Carolina, State of: *Wildlife Resources Commission*: (Through Dr. James R. Davis) 70 marine invertebrates (240024).

North Carolina State College, Raleigh, N.C.: (Through Dr. James W. Hardin) 27 phanerogams from North Carolina collected by Dr. Hardin (244342, exchange).

North Carolina State Museum, Raleigh, N.C.: (Through Dr. David A. Adams) bird skin (246639, exchange).

North Dakota State University, Fargo, N. Dak.: 39 phanerogams and 14 grasses from North Dakota (244557, gift-exchange).

Norway, Government of: *Norwegian Embassy*: (Through Elovius Mangor) 27 mint postage stamps, post cards, and stationery of Norway (239512, 242557, 247790).

Norweb, R. Henry, Cleveland, Ohio: 188 Newfoundland coins, 1865-1947 (246795).

Nucker, Mr. and Mrs. Delmas H., Chevy Chase, Md.: 41 ethnological items, 40 marine invertebrates, and 699 mollusks from the Caroline Islands (246673).

Oakland, Steven J., Nashville, Tenn.:

4 grasses from Washington, D.C. (243885).

Oaks, Robert, Jr. (See Yale University)

Oberthol, Ferdinand (See Columbia University)

O'Brien, John, College Park, Md.: 3 Civil War etchings and 9 engravings (245265, exchange).

O'Brien, Mrs. Robert E., Athens, Ga.: Dress of the 1880's (243653).

O'Connell, Prof. George, Adelphi, Md.: Drypoint *Revelation I* by donor (247794).

Ohio State University, Columbus, Ohio: (Through Dr. William E. Long) coal sample from the Antarctic (247982).

Okada, Muneo, Ehimeken, Japan: 21 small moths from Japan (245579).

Okumura, George T. (See California, State of)

Old, William E., Jr., New York, N.Y.: 260 miscellaneous mollusks and a lot of brachiopods from the Paleozoic of Queensland (203186). (See also American Museum of Natural History)

Olden, Kurt A. (See Olden Camera and Lens Co.)

Olden Camera and Lens Co., New York, N.Y.: (Through Kurt A. Olden) Burke and James motion-picture camera with 8 magazines contained in 2 metal cases (243147).

Oliver, Comdr. and Mrs. James P., Dayton, Ohio; Oliver, John P., Mt. Hamilton, Colo.; and Hall, Mrs. Ruth P., Reidland, Ky.: Crazypatch slumber throw, ca. 1857-59 (248077).

Oliver, John P. (See Oliver, Comdr. and Mrs. James P.)

Oliver, W. A., Jr. (See Interior, U.S. Department of the)

Olsen, Dr. E. (See Chicago Natural History Museum)

Olsen, Dr. Stanley, Tallahassee, Fla.: 3 Spanish hand-forged spikes and a brass fragment of a British ammunition chest strap, 17th and 18th centuries (246794).

Olson, Richard Emil, Cotuit, Mass.: 2 German uniform jackets and a field cap, World War II (246627).

Olson, Dr. Richard H., Reno, Nev.: Invertebrate fossil from the Ordovician of Box Elder Co., Utah (217573).

Olson, Wilbur M., Newport, Wash.: Beryl and a garnet from Pend Oreille Co., Wash. (246682).

Olsson, Axel A., Coral Gables, Fla.: 7 marine mollusks from Ecuador (247474); 10 brachiopods from the Tertiary of Ecuador, 39 recent brachiopods from Panama, and 723 mollusks, including type, from the Tertiary of northwestern Colombia (247622).

Oman, Dr. Paul W., Beltsville, Md.: 2,600 miscellaneous insects from India (245089, 247935).

Ontiveros, Manuel, El Paso, Tex.: 16 minerals from Mexico (243332, 247621).

Oregon State University, Corvallis, Oreg.: 2 grasses from Oregon (244617); (through Dr. Kenton L. Chambers) 56 wood specimens and 42 phanerogams (247462, exchange); (through Dr. Herbert F. Frolander) 160 copepods (242629).

Orr, Virginia, Philadelphia, Pa.: (Through Dr. Harald A. Rehder) 7 samples of Foraminifera bearing raw sedimentary material from various localities (242678).

Ortmann, Clara, Cocheton, N.Y.: 8 bone buttons (244079).

Osborn, Dr. Dale, Thessaloniki, Greece: 692 mammals from Germany, Japan, and Turkey (245750).

Oshkosh Public Museum, Oshkosh, Wis.: (Through Ralph N. Buckstaff) specimen of the Angelica, Wis., meteorite (242771, exchange).

Oulu, University of, Oulu, Finland: (Through Tauno Ulvinen) 98 cryptogams from Finland (242577, exchange).

Owsley, William D. (See Halliburton Co.)

Oyawaye, Dr. Soba (See Ibadan, University of)

Pabst, Dr. G. F. J. (See Herbarium Bradeanum)

Packard, Mr. and Mrs. Kent, Paoli, Pa.: 21 items, mostly belonging to Christian Gobrecht, engraver at Philadelphia mint, 1836-44 (247607).

Paillard Incorporated, New York, N.Y.: (Through Hans Stauder) Bolex H16 reflex motion picture camera with transparent housing (245203).

Pakistan, Government of: Geological Survey: (Through Dr. A. F. M. Mohsenul Haque) 750 Permian brachiopods from the Salt Range, Pakistan (227731, exchange).

Palkin, Dr. Joseph R., Washington, D.C.: 17 U.S. Naval uniform items (243701).

Pallot, Marion S., Jersey, Channel Islands, England: Guernsey 3-pence piece of 1959, 2 pennies commemorating the 300th anniversary of the flight to Jersey of Charles II, and bronze medal struck in commemoration of the liberation of Jersey in 1945 (242545, 244511).

Palmer, Dr. A. R. (See Interior, U.S. Department of the)

Palmer, Ann B., Alexandria, Va.: 6 fairy shrimps (244558).

Palmer, Donald B., Springfield, N.J.: (Through Early American Industries Assoc.) 4 19th-century hand tools (247525).

Palmer, Elden, Machiasport, Maine: (Through Mrs. R. E. Ankers) Ashanti stool from Ghana (246395).

Palmer, P. F. D. (See aFnning Island Plantations Ltd.)

Palmer, Russell, Enterprise, Fla.: Indian cashmere shawl (242986).

Palyinological Laboratory, Stockholm-Solna, Sweden: (Through Prof. Gunnar Erdtman) 4 microscope slides of pollen (245075); 7 microscope slides of pollen (245871, exchange).

Pan American Petroleum Corp., Tulsa, Okla.: (Through G. A. Ayling) standing and traveling sections of valves (242978); (through Dr. Donald W. Engelhardt) 765 microscope slides of pollen (242960, 243883, exchanges).

Pan American Zoonoses Center, Azul, Argentina: (Through Dr. Benjamin D. Blood) 2 vials of nymphs, a parasitised nymph, and 15 mammals from Argentina (242295, 242722); (through Dr. William L. Jellison) 307 miscellaneous insects from Argentina (247943).

- Pancoast, Ross**, Silver Spring, Md.: Telescope (243713).
- Papcum, Michael**, Melrose, Iowa: 29 goethite specimens from Marion Co., Iowa (246968, exchange).
- Parfin, Sophy I.**, Meriden, Conn.: 231 miscellaneous insects from the U.S. (242804, 243565).
- Parke, Davis & Co.**, Detroit, Mich.: (Through H. D. Beck) 7 bottles of vitamins and antimalarial tablets (245104, 245989).
- Parker, Alice and Priscilla**, Washington, D.C.: Centennial exhibition puzzle (247374).
- Parker, Dr. E.**, Washington, D.C.: 2 bird mummies (247927).
- Parker, Eugene K.** (See McMullin, Dr. John G.)
- Parker, Frances L.**, La Jolla, Calif.: 221 slides of Recent planktonic Foraminifera from Pacific sediments (242681).
- Parker, John** (See Daystrom, Incorporated)
- Parker, Priscilla** (See Parker, Alice)
- Parkes, Dr. Kenneth** (See Carnegie Museum)
- Parks, Mrs. Lillian Rogers**, Washington, D.C.: 5 items of memorabilia that belonged to Mrs. Calvin Coolidge, Mrs. Warren G. Harding, Mrs. Herbert Hoover, and Mrs. William H. Taft (243468).
- Parrish, Lt. Dale W.** (See Defense, U.S. Department of)
- Parsons, Robert T.** (See Van Keuren Co., The)
- Pascucci, Vito** (See G. Leblanc Corp.)
- Passano, Dr. L. M.** (See Yale University)
- Patchin, Mrs. Joseph**, Macedon Center, N.Y.: Booklet containing fashions of 1868 from *Demorest's Monthly Magazine* (242859).
- Patterson, Prof. Paul M.** (See Hollins College)
- Pautzke, Clarence F.** (See Interior, U.S. Department of the)
- Payne, L. L.** (See Hughes Tool Co.)
- Pearce, John N.**, Washington, D.C.: Electric light shade, ca. 1920 (245973).
- Pearcy, William G.**, Corvallis, Oreg.: Holotype of a squid from off Tillamook Bay, Oreg. (242744).
- Pearson, Dr. Eleanor VanDyke** (See McDowell, Robert William)
- Peck, William B.**, Warrensburg, Mo.: 93 insects from North America (242488, 245573).
- Pecora, Dr. W. T.**, Washington, D.C.: Clinohumite from Montana (245453).
- Pedersen, Helen O., Estate of:** (Through Cornelius Whalin) jar, dragon robe, bowl and stand from China, and statuette and netsuke from Japan (242664, bequest).
- Penfield, Loren Hall**, Montreal, Quebec, Canada: Slide caliper and depth gage and a pair of hand-forged pliers (243134).
- Penn, Dr. George Henry** (See Tulane University)
- Pennsylvania, State of, Harrisburg, Pa.:** *Department of Internal Affairs:* (Through Dr. Davis M. Lapham) 3 minerals from Maryland and Pennsylvania (242013, exchange).
- Pennsylvania, University of, School of Veterinary Medicine**, Managua, D.N., Nicaragua: (Through Dr. L. G. Clark) 127 mammals from Nicaragua (242220).
- Pennsylvania State University, University Park, Pa.:** (Through Prof. F. W. Schmidt) Rider hot-air pumping engine, ca. 1907 (245592).
- Pensa, A. E.** (See Estonian Philatelic Society)
- Perdew, A. G.** (See Rotruck, Otis)
- Perkins, Herbert C.** (See Interior, U.S. Department of the)
- Perkins, James, Jr.** (address unknown): (Through Sidney D. Haas) 13 distinctive insignia collected by donor (243350).
- Perloff, L.**, Winston-Salem, N.C.: 3 allanites from Bryson City, N.C., cerargyrite from Chile, and tetrahedrite from Germany (242956, 244629).
- Permanent Mission of Guinea to the United Nations, The** (See Guinea, Government of the Republic of)
- Permutit Co., Paramus, N.J.:** (Through R. C. Adams) Permutit water purification apparatus (244644).

Perrie, Nathan W., Washington, D.C.: 2 motors (245891).

Pessagno, Dr. Emile A., Jr., Davis, Calif.: 6 slides containing Foraminifera, including holotypes and 2 paratypes, from the Cretaceous of Puerto Rico (243335); holotype and paratype of an invertebrate fossil from the Oligocene of Puerto Rico (246685).

Peter, Mrs. Armistead, III, Washington, D.C.: Block of dressed rhyolite from the Great Wall of China (244848).

Peterkin, Ernest W., Washington, D.C.: Post Office Department "Notice of Reward" dated Sept. 27, 1897 (246414).

Peters, Harry T., Jr. (See Peters, Mrs. Natalie W.)

Peters, Mrs. James E., Bethesda, Md.: Uniform, badges, military music, and artillery accessories owned by donor's father, Toner A. Hugg (245193).

Peters, Mrs. Natalie W., Webster, Mrs. Natalie P., and Peters, Harry T., Jr., New York, N.Y.: 11 American lithographs (242030).

Peterson, Dr. B. V., Guelph, Ontario, Canada: 115 black flies from North America (243696).

Peterson, Dr. Clifford L. (See Inter-American Tropical Tuna Commission)

Peterson, E. B. (See British Columbia, University of)

Peterson, Mrs. LaNelle W. (See Interior, U.S. Department of the)

Peterson, Mendel L., Washington, D.C.: Medal bearing likeness of William H. Seward (242603); collection of coins, weights, counters, tokens, medals, trial copper pieces, facsimiles, jetons, necessity issues, store cards, encased stamps, and charms (244399, 244662, 244664, 247633, 247634, 247635, 247636, 247637, 247638, 247639, 247640, 247642); 5 bronze medallions by Jean Pierre David d'Angers, 1788-1856 (244663); 63 coin weights, mostly from England, 17th and 18th centuries, and an Egyptian glass weight (247641); late 18th-century grapeshot stand from Fort George, Western Caicos, B.W.I. (245316).

Peterson, Robert (See Puleston, Peter)

Petit, Richard E., Ocean Drive Beach, S.C.: 5 Cenozoic echinoids from the Intracoastal Waterway, South Carolina (246509).

Peyton, Bernard, Princeton, N.J.: 76 miscellaneous U.S. and foreign, mint and used postage stamps (245212, 245469, 245878).

Phelan, Sgt. Thomas F., Peru, Ind.: Marine invertebrate from Logansport, Ind., and 74 fossil corals from the Miocene of Florida (245689, 247623).

Phelps, Mrs. Rusha, Ocean View, Del.: 3 U.S. Coast Guard uniforms worn by Lt. Robert I. Hudson (245641).

Philippines, University of the, College, Laguna, Philippines: 2 grasses from the Philippines (243666).

Phillips, E. W. J. (See Forest Products Research Laboratory)

Phipps, M. B. (See Nickel Plate Road)

Pi Beta Phi Fraternity, St. Louis, Mo.: (Through Mrs. Alice Weber Mansfield) 13 examples of 20th-century textile crafts (242636).

Pickens, A. L., Charlotte, N.C.: 3 phanerogams from North Carolina (244332).

Pierpont, E. M., Kinnaird, B.C., Canada: 2 pyrrhotites and 4 mossotites from British Columbia (243850, 244468).

Pillai, Dr. N. Krishna, Trivandrum, India: 8 copepods (240765, exchange).

Pinch, William W., Rochester, N.Y.: 4 minerals from Vermont and 9 meteorites from worldwide localities (247681, exchange); (through Dr. George Switzer) 6,741 miscellaneous insects from worldwide localities (247936).

Pippin, Maj. Warren F. (See Defense, U.S. Department of)

Pirone, Dominick J., Mount Vernon, N.Y.: 232 grasshoppers from Arizona (247346).

Plath, Walter, Sr., Dunnville, Ontario, Canada: 253 beetles from Czechoslovakia (243867).

Pletsch, Dr. Donald J., Mexico, D. F.: 22 ethnological items from Japan, Taiwan, and Formosa and 37 slides of

mosquitoes and fleas from Japan and Montana (242950, 246209).

Plitt, Mrs. Karl Frederick, Kensington, Md.: Woman's dress, waist, and a pair of stockings, ca. 1905 (246607).

Poland, Government of (Through Przedsiębiorstwo Eksportu) 128 mint postage stamps and first-day covers (245324, 247792).

Polaroid Corp., Needham Heights, Mass.: (Through Dr. Edwin Land) 6 different models of Polaroid cameras (245204).

Pollack, Mrs. Virginia (See Delue, Donald)

Pomona College, Claremont, Calif.: 7 phanerogams from Mexico (227876).

Poole, Dr. John C. (See New York, State of)

Poole, Katherine R. (See Poole, Martha Sprigg)

Poole, Martha Sprigg and Katherine R., Washington, D.C.: Wine glass, ca. 1785-95 (246220).

Portobello Marine Biological Station, Portobello, New Zealand: (Through Dr. Elizabeth J. Batham) 5 sea anemones (225656).

Post, Mrs. H. Lee, Washington, D.C.: Embroidered-lace baby bib, ca. 1912 (243361).

Post Office Department, Washington, D.C.: (Through Greever Allan), 4,196 miscellaneous foreign mint postage stamps, souvenir sheets, postal stationery and meter impressions (243478, 245548); (through James M. Bell) 165 mint U.S. postage stamps (242297); (through J. F. Kelleher) 25,219 certified proof sheets and 161 die proofs of U.S. stamps (242463); (through Conrad L. Trahern) Pitney-Bowes Model "D" canceling machine (243017).

Potomac Electric Power Company, Washington, D.C.: (Through R. W. Wilson) remains of small Aqualodont whale from Maryland (245690).

Potomac Speleological Club, Arlington, Va.: 100 early invertebrate fossils from the Devonian of Pendleton Co., W. Va. (247822).

Potter, Lawrence, Bellport, N.Y.: 4

marine mollusks from New York (242-017).

Pough, Dr. Frederick H., New York, N.Y.: 20 minerals from various localities (246679). (See also Moyd, Louis)

Powell, Mrs. Alexander, Washington, D.C.: Small boy's dress of the 19th century (246046).

Powell, Frank, White Plains, N.Y.: Gold matchbox (241947).

Pratt, Richard, Woods Hole, Mass.: 307 marine invertebrates, 15 brachiopods, 86 mollusks, and 1 fish (241465).

Preston, Edward H., Long Island City, N.Y.: Pen and letter that belonged to donor's grandfather given in memory of his father, James David Preston (243-496).

Preston, Floyd W. (See Kansas, University of)

Price, Herbert W., Washington, D.C.: 30 pieces of shell money from Vella Lavella Island, Solomon Ids. (247028).

Price, Mrs. Stewart (See Young, Mrs. Gordon Russell)

Prince, Frederick H., Jr., Long Island, N.Y.: Indian-head insignia of the Lafayette Escadrille Squadron taken from the Spad flown by donor during World War I (244759).

Prologue to Freedom, Beaufort, N.C.: (Through H. E. Danner) 2 "Huguenot Half Dollar" commemorative medallions, struck in connection with the quadricentennial celebration of the expedition of Jean Ribaut and his French Huguenots to Port Royal, S.C., 1562 (242364).

Propson, Mrs. Bertha Cady, Stratford, Conn.: Ceramic mug (242599).

Provenza, Pat V., St. Augustine, Fla.: 4 commissary cards and a token used in the St. Augustine area (243111).

Provenzano, Dr. Anthony J., Jr. (See Interior, U.S. Department of the, and Miami, University of)

Provincial Museum, Victoria, B.C., Canada: (Through Dr. Adam F. Szczawinski) 39 lichens and mosses from British Columbia and the Yukon (244642).

Przedsiębiorstwo Eksportu (See Poland, Government of)

Public Service Electric and Gas Co., Newark, N.J.: (Through J. E. Hulsizer) Tim calculating machine (244668).

Puckett, D. Hugh, Martin, Tenn.: 2 crayfishes (245547).

Puerto Rico, University of, Mayaguez, Puerto Rico: (Through Dr. Luis R. Almodovar) 86 marine algae from Puerto Rico (244343, exchange); (through Dr. John E. Randall) 6 sea anemones, 5 fragments of isopods, and an eel from Puerto Rico (239973, 240785, 247254); (through Dr. Juan A. Rivero) 18 sea anemones (222057). *Institute of Marine Biology*: (Through Dr. Luis R. Almodovar) 93 marine algae from the West Indies (242250, exchange).

Puig, Dr. Félix Cardona, Caracas, Venezuela: 35 phanerogams, grass, and a fern from Venezuela (246773).

Pulawski, Dr. W. J., Wroclaw, Poland: 233 wasps from Europe (243412, 246331, exchange).

Puleston, D. E., Brookhaven, N.Y.: 1,962 miscellaneous insects from New Jersey (244385).

Puleston, Peter, and Peterson, Robert, Brookhaven, Long Island, N.Y.: 400 moths from Florida (242588).

Purdue University, Lafayette, Ind.: 136 phanerogams, 2 grasses, and 28 ferns from the West Indies (247461, exchange).

Pyne, William E. (See Baltimore and Ohio Railroad)

Pyramid Rubber Co., Ravenna, Ohio: (Through Mrs. Elaine Evans) 5 Evenflo baby nipples and 2 complete nursers (242719).

Quate, Dr. Lawrence W. (See Bishop Museum, Bernice P.)

Quigley, Mrs. Mary M., Washington, D.C.: 1,500 miscellaneous insects from Forest Glen, Md. (247932).

Quinby, Elsie Howland, Washington, D.C.: 18th-century, Martha Washington-type armchair (243814).

Quincy Mining Co., Hancock, Mich.: (Through James McKee) 5 gages (244877).

Quynn, Prof. and Mrs. William Rogers, Frederick, Md.: (Through C. Mal-

colm Watkins) fragments of window glass (246876).

Rabor, Prof. D. S. (See Defense, U.S. Department of)

Radke, C. V., Jennings, La.: Yellow dog lamp (247980).

Radovsky, Dr. Frank J., Berkeley, Calif.: 42 slides of mites from North America, including holotype, allotype, and 16 paratypes (244865, 247725).

Rageot, Roger, Norfolk, Va.: Beetle from the U.S. (244068, exchange).

Ragge, Dr. David R., London, England: 5 grasshoppers and cockroaches from Africa and Arabia (241054, exchange).

Rainwater, H. Ivan (See Agriculture, U.S. Department of)

Rake, Joseph, Newburgh, N.Y.: (Through Early American Industries Assoc.) 5 19th-century hand tools (247515).

Ralph Waldo Emerson Junior High School, Los Angeles, Calif.: (Through Mel L. Webster) crab from the Tertiary of Florida (246701, exchange).

Ramaut, Dr. J. L. (See Université de Liège)

Ramsey, Mrs. Dewitt Clinton, Washington, D.C.: 98 ethnological items from worldwide localities from the estate of donor's husband, Adm. Dewitt Clinton Ramsey, a mandolin, ca. 1900, and a liquor chest with embroidered cover (244937, 245694); (through Paul E. Garber) framed photograph (246143).

Rancho Santa Ana Botanic Garden, Claremont, Calif.: 2 phanerogams from California (245942).

Randall, Dr. John E., St. John, Virgin Islands: 4 zoanthids, 59 gorgonians, 25 coral fragments, and a sea anemone (231645, 232671). (See also Miami, University of, and Puerto Rico, University of)

Randol, Ward, New York, N.Y.: 90 phanerogams, 13 grasses, 4 ferns, and 3 cryptogams collected by Dr. J. W. Goodsell (242902).

Raney, Dr. Edward C., Ithaca, N.Y.: 563 miscellaneous marine invertebrates, 25 insects, 107 mollusks, and 16 frog larvae (242765); (through Leslie

Knapp and William Richards) paratype of a fish from Etowah River, Georgia (246435). (See also Cornell University)

Ranger, Mrs. Richard Howland, Norfolk, Va.: Photograph of Richard Howland Ranger and 3 copies of early photoradiograms (247979).

Rapier, Corp. Richard Dale, Falls Church, Va.: Fragment of wooden coffin lid from Egypt (247749).

Rapp, Dr. William F., Jr., Lincoln, Nebr.: 50 slides of diatom materials from Nebraska (246298). (See also Nebraska, State of)

Rasetti, Dr. Franco, Baltimore, Md.: 19 trilobites from the Upper Cambrian of Quebec (244473).

Rathbun, Ner Wilmot (See Wilmot's)

Raup, Dr. David M. (See Johns Hopkins University)

Rausch, Dr. Robert L. (See Health, Education, and Welfare, U.S. Department of)

Rawson, Dr. George W., New Smyrna Beach, Fla.: 7,993 butterflies and moths from North America (245201)

Raymond, Mrs. Wayte, New York, N.Y.: 620 modern coins, worldwide (245508).

Raymond H. Weill Co., New Orleans, La.: 71 U.S. Civil War, Confederate States, and foreign philatelic covers, letters, and stamps (242370, 242715, 246042).

Rayo, Omar, New York, N.Y.: Relief print, *September Evening*, by donor (242281).

Read, Dr. W. F. (See Lawrence College)

Rechinger, Dr. Karl H. (See Naturhistorisches Museum)

Recordak Corp., New York, N.Y.: (Through Alfred Macdonald) Recordak Model 1 microfilmer and Model 4 film reader (246941).

Reda Pump Co., Bartlesville, Okla.: (Through Ivey W. Kirtley) Reda pump (248050).

Reddell, James R., Austin, Tex.: Centipede from North America

(245954). (See also Texas Speleological Survey)

Redfearn, Dr. Paul L., Springfield, Mo.: 89 cryptogams and 79 mosses from the U.S. (245950, 246999, exchanges).

Reed, Dr. Clyde F., Baltimore, Md.: 164 mosses from Costa Rica, Puerto Rico, and South Africa (244646, 247818).

Reed, Dr. E. B., Fort Collins, Colo.: 58 plankton specimens (231300).

Reed Roller Bit Company, Houston, Tex.: (Through Roy A. Bobo) 5 rotary drilling bits (246411).

Reeder, Dr. John (See Yale University)

Rees, Dr. W. J. (See Great Britain, Government of)

Rehder, Dr. Harald A., Washington, D.C.: 863 German copper and silver coins, 18th and 19th centuries (245789). (See also Orr, Virginia)

Reichenbach, G. E., St. Petersburg, Fla.: Bronze medal for Panama Canal Service, 1906-10 (244395).

Reid, Dr. J. A., London, England: 50 mosquitoes from Asia (247011).

Reid, Merle R., Denver, Colo.: 4 barites and a sphalerite from Eagle Mine, Gilman, Eagle Co., Colo. (242434, exchange).

Reinert, Mrs. Frederick F., Essex, Mass.; Blown-glass medicine bottle and pressed-glass perfume bottle (245976).

Reinhard, Prof. H. J., College Station, Tex.: 4 flies from Texas (243564, exchange).

Reish, Dr. Donald J., Long Beach, Calif.: 19 polychaete worms (244910); (through Dr. J. Laurens Barnard) 875 amphipods, including 21 types (239468).

Reitz, Father Raulino, Santa Catarina, Brazil: 575 phanerogams and 254 grasses from Brazil (246905).

Remmert, Dr. Hermann (See Zoologisches Institut)

Renfroe, Charles, North Little Rock, Ark.: Montmorillonite from Jeffrey Quarry, North Little Rock (242086).

Renshaw, Lillie Carpenter, Glendale, Calif.: Handkerchief from California, 1889 (245464).

- Rentz, David C.**, San Francisco, Calif.: 4 grasshoppers from the U.S. (246786).
- Republic of China:** (Through T. Y. Ho) 35 mint postage stamps and souvenir sheets of the Republic of China (241200, 247644).
- Reynolds, John A.**, Arcadia, Fla.: 11 invertebrate fossils from the Miocene of Florida (242128).
- Rheinisches Landesmuseum, Bonn**, West Germany: (Through Dr. Irwin Scollar) set of casts of the Neanderthal skeleton excavated from Neander River valley, Germany, 1856 (244967).
- Rhoads, Dr. Arthur S.**, Jacksonville, Fla.: 63 isopods (242830).
- Rhodes University, Grahamstown**, South Africa: (Through Dr. J. L. B. Smith) 2 fishes (244443).
- Rice, Richard L.**, Hillsboro, Ore.: 2 calcites from Mexico, and 5 rutilated quartz specimens from Brazil (243844, exchange).
- Rice, Mr. and Mrs. Richard L.**, Hillsboro, Ore.: 42 azurites from Bisbee, Ariz. (241399, exchange).
- Rice, Mr. and Mrs. William M.**, Hampton, Va.: 23 fossil mollusks from Rice's pit, Hampton, Va. (244731).
- Richards, Mrs. A.**, Brookmont, Md.: 18 relics from World War II, formerly the property of Lt. Paul J. Riley, U.S.N. (243892).
- Richards, Abraham**, Washington, D.C.: Badge worn by donor at the 1940 Democratic National Convention (243471).
- Richards, Dr. Charles S.** (See Health, Education, and Welfare, U.S. Department of)
- Richards, Dr. Horace G.**, Philadelphia, Pa.: 16 corals from Colombia (243946).
- Richards, Dr. W. R.** (See Canada, Government of)
- Richards, William** (See Raney, Dr. Edward C.)
- Richey, Mrs. Ada B.**, Monticello, Fla.: 4 drafting instruments (243754).
- Richfield Oil Corp.**, Long Beach, Calif.: (Through W. T. Rothwell, Jr.) 147 invertebrate fossils from the Spanish Sahara (243493).
- Richmond, Prof. I. A.**, Oxford, England: (Through Iron & Steel Institute) 4 samples of Roman iron nails (244230).
- Riegel, Dr. Garland T.**, Charleston, Ill.: 14 parasitic wasps including holotype, allotype, and 12 paratypes, from the U.S. (246866).
- Riggin, Dr. G. Thomas, Jr.**, Greenville, S.C.: 2 slides of Tardigrades, holotypes (242394).
- Rijksherbarium, Leiden**, Netherlands: (Through Dr. M. Jacobs) wood (245072); (through Prof. H. J. Lam) 28 phanerogams from Malaysia (244616, exchange).
- Rijksmuseum van Natuurlijke Historie, Leiden**, Netherlands: (Through Dr. W. Vervoort) slide of a hydroid (247137).
- Riley, Matthew**, Seattle, Wash.: Dobsonfly from Washington State (244948).
- Ring, Bernard**, Brooklyn, N.Y.: 3 American First Day Cover Society convention covers (244393).
- Ring, E. Raymond, Jr.**, Houston, Tex.: 45 fresh- and brackish-water mollusks from American Indian kitchen midden sites in Harris Co., Tex. (221976).
- Ringer, L. D.**, Hagerstown, Md.: Girandole mirror in carved gilt-gesso frame (243465).
- Rivero, Dr. Juan A.**, Mayaguez, Puerto Rico: Paratype of a new species of frog from Puerto Rico (244905), exchange). (See also Puerto Rico, University of)
- Rivinus, Edward F.**, Washington, D.C.: Bird skin (247566).
- Roberts, Mrs. Alfred**, Baltimore, Md.: French clock (241968).
- Roberts, Dr. Frank H. H., Jr.**, Washington, D.C.: Industrial Workers of the World official membership book (244658).
- Robertson, Alan W.**, Pinner, Middlesex, England: Cacheted cover commemorating the Seaborne Mail Exhibition, Greenwich, England, 1960 (247381).
- Robertson, Dr. Robert**, Philadelphia, Pa.: 3 sea anemones (242061). (See

also Academy of Natural Sciences of Philadelphia)

Robertson, Mrs. W. B., Athens, W. Va.: Tiffany Favrite vase (244654).

Robins, Dr. C. Richard (See Miami, University of)

Robinson, Dr. J., Tifton, Ga.: 9 planarians and a fish (245437).

Robinson, John M., Houston, Tex.: Smith drilling rig (243598).

Rocca Fund, Smithsonian Institution: Legrandite from Mexico (242228).

Rockefeller Foundation, Bogotá, Colombia: (Through Dr. Robert F. Ruppel) 552 slugs and 27 land planarians from Colombia (216981).

Roebling Fund, Smithsonian Institution: 780 miscellaneous minerals from worldwide localities (239992, 241695, 242076, 242344, 242345, 242346, 242428, 242475, 242477, 242480, 242586, 242587, 242637, 242668, 242954, 243070, 243099, 243445, 243543, 243675, 243676, 243677, 243681, 243842, 244088, 244101, 244152, 244316, 244350, 244351, 244352, 244353, 244367, 244465, 244466, 244628, 244860, 244861, 244943, 245081, 245082, 245083, 245566, 245569, 245670, 246005, 246114, 246115, 246180, 246301, 246402, 246421, 246510, 247111, 247470, 247471, 247619); amethyst statuette, coral, and coral beads (244505); pink fluorite from St. Gotthard, Switzerland (242347); 20 meteorites from worldwide localities (247472).

Roger Williams Park Museum, Providence, R.I.: (Through Maribelle Cormack) 3 mounted birds (246093, exchange).

Rogers, Prof. C. M., Detroit, Mich.: 36 phanerogams from North America (242535).

Rogers, Mrs. Josephine Ranson, Alexandria, Va.: Hitching weight and wagon jack (244240).

Rogers, Ken E., Auburn, Ala.: 5 grasses from Alabama (246612).

Rogers, Mark E., Loma Linda, Calif.: 37 marine mollusks, including a paratype, from the Gulf of California (243857).

Rohde, Dr. K., Kuala Lumpur, Ma-

laya: 2 slides of trematode worms, holotypes, from Malaya (245440).

Rohwer, Dr. G. G. (See Agriculture, U.S. Department of)

Roivainen, Dr. H. (See Helsinki, University of)

Roland, Adm. E. J. (See Treasury, U.S. Department of the)

Roldan, Dr. Arsenio N., Jr. (See Springer, Dr. Victor G.)

Roloff, Dr. E., Karlsruhe, Germany: 22 fresh-water fishes from Ecuador and Thailand (242381).

Rolston, Dr. L. H., Fayetteville, Ark.: 13 scarab beetles from North America (247629).

Roosevelt, Cornelius Van S., Washington, D.C.: Book, *The Silva of California*, originally presented to President Theodore Roosevelt (246915).

Rosary College, River Forest, Ill.: (Through Sister Mary Brandon) 7 examples of 19th-century chemical equipment (247191).

Rose, James M., Washington, D.C.: Marine mollusk from Atlantic City, N.J. (237610).

Rose, Paul W., and Family, Bethesda, Md.: 340 mint and used postage stamps of Tibet (245702).

Rosen, Dr. Donn E. (See Hambly-Clark, R. J.)

Rosenberg, William, Balsam, N.C.: 16 scarab beetles from North America and Thailand (242491, 247760).

Rosenblatt, Dr. Richard (See Scripps Institution of Oceanography)

Ross, R. J., Jr. (See Interior, U.S. Department of the)

Roth, Alfred F. M., Trenton, N.J.: 2 cacheted covers, one bearing 4 5-cent United Nations airmail stamps and the other a 4-cent 50-star-flag stamp, both canceled first day of issue (242864); first-day cover bearing 10-cent commemorative Internal Revenue documentary stamp (243019).

Roth, Herman M. (See Atomic Energy Commission)

Rothwell, W. T., Jr. (See Richfield Oil Corp.)

Rotruck, Otis, Martin, W. Va.: (Through A. G. Perdew) crinoid from

the Silurian or Devonian of West Virginia (244472).

Rout, John C., Washington, D.C.: Guide tool for making flat gages, ca. 1906-07 (242720).

Rowan, J. W., Mars, Pa.: Illinois watch with gold case (247992)

Rowan, John P., Washintgon, D.C.: 2 facsimiles of Confederate \$20 notes (247187).

Rowell, Dr. A. J., Ilkeston, Derbyshire, England: 31 brachiopods from the Silurian of Great Britain (244942, exchange).

Roy, Dr. B. C. (See India, Government of)

Royal, Mrs. Forrest, Washington, D.C.: 15 examples of lace and needlework, 19th and 20th centuries (243364).

Royal Botanic Gardens, Kew, Surrey, England: 5 phanerogams (242031); 162 phanerogams and 33 ferns from Borneo, and 155 grasses (246110, 246296, exchanges).

Royal Forest Department, Bangkok, Thailand: (Through Tem Smitinand) 21 phanerogams and 21 wood specimens from Thailand (245447, exchange).

Royal Ontario Museum, Toronto, Canada: (Through Dr. E. J. Crossman) 24 fishes from Ontario (245346).

Rozman, Sol, New York, N.Y.: Russian Zemstvos collection of used philatelic covers and postal stationery (239452).

Rubel, Dr. Madis (See Geologia Institut)

Ruhoff, Theodore B., Washington, D.C.: 36 miscellaneous U.S. and foreign stamps, covers, and postal stationery (245876).

Ruhoff, Mr. and Mrs. Theodore B., Laurel, Md.: 39 miscellaneous U.S. and foreign postage stamps, covers, and registration labels (247656).

Ruhr, C. E. (See Tennessee Game and Fish Commission)

Ruppel, Dr. Robert F. (See Rockefeller Foundation)

Ruschi, Dr. Augusto, Santa Teresa, Espirito Santo, Brazil: 34 forest-game-

bird calls and roll of tape recordings (244382).

Rutgers University, New Brunswick, N.J.: (Through Prof. J. B. Schmitt) 3 scarab beetles from the U.S. (246966, exchange); 9 scarab beetles from the U.S. (247160).

Rutherford B. Hayes Library and Museum, The, Fremont, Ohio: (Through Watt P. Marchman) invitations, place cards, and seating plans used in the White House during the administration of President Hayes (243895).

Ryan, James T., Washington, D.C.: 65 first-day covers of Japan and 13 philatelic post cards (245617).

Ryland, Charles S. (See Coors Porcelain Co.)

Ryland, William (See Commerce, U.S. Department of)

Sabin, Dr. Fred C., Little Falls, N.Y.: (Through Early American Industries Assoc.) 19th-century bitstock (247522).

Sabrosky, Dr. Curtis W., Washington, D.C.: 6 wasps, 383 biting midges, and 7 soldier flies, including 2 holotypes, from North America (243693, 246129, 247159).

Sacchini, Wayne N. (See Ajax Manufacturing Co.)

Sachet, Marie Hélène, Washington, D.C.: 142 marine invertebrates, 104 mollusks, and 8 lizards (222490).

Sachs, Mrs. Morris H., Washington, D.C.: 223 paper seals and revenues, mostly Mexican, 19th and 20th centuries (246690).

St. Anselm's College, Manchester, N.H.: (Through John R. Feick) 2 crayfishes (243189).

St. Mary, Francis Carl (See St. Mary's Funeral Home)

St. Mary's Funeral Home, Malone, N.Y.: (Through Francis Carl St. Mary) compound microscope and case (243712).

St. Peter, Mrs. Mary (See Galli, Mr. and Mrs. Angelo)

Sakimura, K., Honolulu, Hawaii: 3 vials and a slide of thrips (245455, exchange).

Salkin, Robert M., Newark, N.J.: 4

fossils from Italy and New Jersey (245079).

Salmon, Dr. J. T., Wellington, New Zealand: 5 springtails, paratypes, from the Antarctic (245456).

Salter, Sgt. Louis Allison (deceased): (Through William E. Salter) cane from Lookout Mountain, 1898, and toy cannon, ca. 1860 (245699).

Salter, William E., Washington, D.C.: 60 fresh-water mollusks from the Potomac River, Prince Georges Co., Md. (242594). (See also Salter, Sgt. Louis Allison.)

Saltonstall, Hon. Leverett, Washington, D.C.: Piano-box buggy of 1900 and a coach harness of 1851 (242232).

Sánchez, Dr. Xavier Madrigal (See Instituto Nacional de Investigaciones Forestales)

Sangster, Mr. and Mrs. J. Gilbert (See Antiques on the Hill)

Sanjeeva Raj, Dr. P. J. (See Connecticut, University of)

Santa Barbara Botanic Gardens, Santa Barbara, Calif.: 3 grasses from California (245012).

Santos, Dr. Patrocinio S. (See National Institute of Science and Technology)

Sasakawa, Dr. Mitsuhiro, Kyoto, Japan: 17 leaf-mining flies from Asia, including 16 paratypes (246128).

Saskatchewan, University of, Saskatoon, Saskatchewan, Canada: (Through Dr. George W. Argus) 33 lichens from Saskatchewan (246237); (through Dr. Ralph Dix) 8 lichens from Saskatchewan (246446).

Saunders, Dr. George B. (See Interior, U.S. Department of the)

Savage, Thomas (See Maryland, University of)

Savicz, Dr. V. P. (See Academy of Sciences of the U.S.S.R.)

Savorio, Ruth, Washington, D.C.: 25-centavos piece and a cordoba note issued in 1959 in Nicaragua (246522).

Sawyer, R. Tom, Ho-Ho-Kus, N.J.: Locomotive builder's plate (244885, exchange).

Schabillon, Robert J., Flora, Miss.: (Through Dr. Francis M. Hueber) 13

pieces of fossil wood from Yazoo Co., and Mississippi Petrified Forest, Flora, Miss. (246507).

Schaefer, Dr. Richard H. (See New York, State of)

Schaldach, William J., Jr., Washington, D.C.: 105 bats from southern Mexico and 17 bird skins (245957, 247627).

Schecter, Larry J. (See Chas. Pfizer and Co., Inc.)

Scheele, Carl H., Arlington, Va.: Edison record (247996).

Schell, Dr. Stewart C., Moscow, Idaho: 52 fresh-water snails from Idaho (230305).

Schiller, Mrs. Dorothy M., Washington, D.C.: 17 miscellaneous U.S. and foreign postal meter impressions (247648).

Schindler, Mrs. George, Falls Church, Va.: Pair of earrings, 19th century, and a pair of man's shoe buckles, 18th century (245540).

Schluter, D. W. (See Duffy, Raymond)

Schmid, Alfred (See Schmid, Walter)

Schmid, Dr. Fernand, Lausanne, Switzerland: 714 caddis flies, worldwide (247972, exchange).

Schmid, Walter and Alfred, and **Chapman, Mrs. Josephine M.**, Philadelphia, Pa.: Model of a parlor chair car, ca. 1875 (247886).

Schmidt, Prof. F. W. (See Pennsylvania State University)

Schmitt, Prof. J. B. (See Rutgers University)

Schofield, Dr. W. B. (See British Columbia, University of)

Schreter, A. Harvey (See A. Schreter and Sons Co., Inc.)

Schreyer, Dr. W., Kiel, Germany: 6.23 grams of the Kiel, Germany, meteorite (246678).

Schultz, A. C. (See Capitol Medals, Inc.)

Schultze-Motel, Dr. W. (See Botanischer Garten und Museum)

Schwab Safe Co., Inc., Lafayette, Ind.: (Through George M. Burgess) Van Horn planer, 1856 (239321).

Schwalberg, Robert, Wetzlar, Ger-

many: Ducati miniature camera with Vitor lens (244389).

Schwartz, H. W., Manaus, Amazonas, Brazil: (Through Dr. Herbert R. Axelrod) aquarium fish (247278).

Schwengel, Gen. Frank R. (See Schwengel, Jeanne S.)

Schwengel, Jeanne S., Estate of: (Through Gen. Frank R. Schwengel) 14 marine mollusks from the Gulf of Nicoya, Costa Rica (242649).

Scollar, Dr. Irwin (See Rheinisches Landesmuseum)

Scott, Brig. Gen. James D. (address unknown): (Through Sidney D. Haas) 12 distinctive insignia of World War II (243582).

Scott, Raymond C., Arlington, Va.: 11 copper and silver coins from the Near East (245607).

Scovel, Mrs. Frederick Gilman, Stony Point, N.Y.: 5 pairs of shoes, pair of boots, insignia of rank, pair of cuffs, "dragon robe," banner, pillow cases, cloth, and a child's costume from Anhwei Province, China (242949).

Scoville, Mrs. John A., Pocatello, Idaho: Dress, child's purse, and a woman's purse, 19th century (247327).

Scripps, Josephine, San Luis Rey, Calif.: Tourmaline from El Alamo, Baja California, Mexico (242121, exchange).

Scripps Institution of Oceanography, La Jolla, Calif.: (Through Dr. Edward Brinton) 100 crustaceans, including holotypes, allotypes, and paratypes (241321); (through Dr. Abraham Fleminger) 34 copepods (246748); (through Dr. Carl L. Hubbs) 11 isopods and 11 shrimps (245555); (through Dr. Richard Rosenblatt) fish from California (243799).

Scudder, Dr. G. G. E., Vancouver, B.C., Canada: 22 chinch bugs from the Island of Saba (243453).

Seal, W. L. (See Agriculture, U.S. Department of)

Seaman, David (See Seaman, Hubert G.)

Scaman, Elwood A. (address unknown): Frog from the Azores (241634).

Seaman, Hubert G., Estate of: (Through David Seaman) 1,085 minerals, 58 gemstones, and 44 micromounts (241316, bequest).

Seed, Allen H., Jr. (See Carto-Philatelists)

Seeley, Elizabeth Sterling, Bridgeport, Conn.: 2 silver-plated doorknobs used in the Harral-Wheeler house and the home of P. T. Barnum (242862).

Segrè, Prof. Emilio, Lafayette, Calif., and Istituto Fisico dell'Università, Rome, Italy: (Through Prof. Edoardo Amaldi) radon-beryllium neutron source (247572).

Seidel, Alvim, Corupá, Santa Catarina, Brazil: 12 phanerogams from Brazil (244461).

Seki, Dr. Y., Urawa, Japan: 7 minerals from Japan (244623).

Senckenbergische Naturforschende Gesellschaft, Frankfurt, Germany: (Through Dr. Wolfgang Klauswitz) fish, holotype from the Marquesas Islands (231987); 837 fishes from various localities (236481, exchange).

Serebrakian, S., Monroe, N.Y.: 11 varieties of the Epila Madonna souvenir sheets issued by Spain in 1937 (244666).

Seshadri, Dr. T. (See Delhi, University of)

Setzer, Dr. Henry W., Washington, D.C.: 10 miscellaneous foreign covers bearing postage stamps and meter impressions (247649).

Sewing Group of the Emmanuel Episcopal Church, Alexandria, Va.: (Through Mrs. W. A. Mitchell) late Victorian quilt top (245859).

Shannon, R. C. (deceased): 2,548 miscellaneous insects from South America (246304).

Shasky, Dr. Donald R., Glendale, Calif.: Marine mollusk from Guaymas, Mexico (247762).

Shaw, Frederick C., Cambridge, Mass.: 10 silicified brachiopods from the Crown Point formation of New York (247755).

Shaw, Dr. J. N., Corvallis, Oreg.: 5 fresh-water snails from Oregon (245139).

Sheaffer, Mrs. Daniel M., Wayne, Pa.:

Statuette of "Man o'War," framed folder describing it, scrapbook, and a book (242358).

Sheriff's Office, Franklinton, La.: (Through Sheriff Dorman A. Crowe) human left maxilla and mandible found near Franklinton, La. (247340).

Sherman, Kenneth (See Interior, U.S. Department of the)

Shertz, A. W., Lancaster, Pa.: 17 fossils from the lower Cambrian of Pennsylvania (244474).

Sherwood, M. W., Lombard, Ill.: 2 pen points (242506).

Shewell, Dr. G. E., Ottawa, Ontario, Canada: 14 black flies from North America (246132).

Shrestha, Ganga L., Washington, D.C.: 7 first-day covers of Nepal and 7 Nepalese coins commemorating the coronation of Mahendra Vir Vikrana in 1956 (244486, 244661).

Shure, Sidney N., Evanston, Ill.: 3,064 postage stamps, covers, and related material of Israel and Palestine (245498, 247789).

Shuttleworth, Charles Jackson (See Kinney, Mrs. Margaret Shuttleworth)

Sikes, Wingate, Arlington, Va.: 19th-century clarinet and flute (243873).

Sillery, H. P., Albuquerque, N. Mex.: Brace and bits, and gouge of the early 19th century (243485).

Simms, Dr. B. T., Arlington, Va.: 21 fresh-water mollusks from Turkey (247164).

Simon, Dr. J. E. (See Estación Experimental Agrícola La Molina)

Simpson, Henry A., Geneva, Fla.: Slide fastener (247798).

Sioux Falls Army Store, Sioux Falls, S. Dak.: (Through Harry S. Marsh) pair of World War I U.S. Army boots (247869).

Skinner, Dr. Hubert C., New Orleans, La.: (Through Dr. G. A. Cooper) 134 Foraminifera from the Upper Cretaceous of Arkansas (242085, exchange).

Sladen, Dr. William J., Baltimore, Md.: 81 birds from the Pribilof Islands, Alaska (242353).

Slater, Dr. James A., Storrs, Conn.: 21 insects, worldwide (243863).

Sledge, Dr. W. A. (See Leeds, University of)

Smalley, Dr. Alfred E. (See Tulane University)

Smalley, Orton, Gouverneur, N.Y.: 3 tirodites and tremolite from Tazeville, N.Y. (243848).

Smith, Mrs. Francis A., St. Petersburg, Fla.: 15 marine mollusks from Mullet Key, Fla. (242597).

Smith, Dr. and Mrs. Francis A., St. Petersburg, Fla.: 1,150 marine mollusks from Pinellas Co., Fla. (224401). (See also Steger, Mr. and Mrs. Daniel)

Smith, George Dewey, Panama City, Fla.: Pair of drumsticks said to have been used by donor's father, Otto Smith, during the Civil War (244444).

Smith, Gertrude, Brookfield, Mass.: 192 miscellaneous U.S. and foreign postage stamps (242601).

Smith, Hon. Gus (See Citizens of Greenville and Spartanburg, S.C.)

Smith, Harry L. (See Virginia, State of)

Smith, Dr. J. L. B. (See Rhodes University)

Smith, Dr. Marion E., Amherst, Mass.: 27 mosquitoes from North America (246311).

Smith, Mrs. Mildred Grey, Southington, Conn.: Overshot coverlet, "Single Chariot Wheel" pattern, ca. 1850 (241956).

Smith, Stanford D., Moscow, Idaho: 46 caddis flies from western North America (246912, exchange).

Smith, Rear Adm. W. J. (See Treasury, U.S. Department of the)

Smith, Lt. Col. Willard A., Berkeley, Calif.: $\frac{1}{3}$ interest in silver presentation vase with wooden case (245502).

Smith, William P., Washington, D.C.: 2 political stickers used in President Hoover's 1932 campaign (245101).

Smithsonian Institution, Washington, D.C.: (See Harrington, Awona, Wells, C. Edward; also the following funds: Batchelor, Charles and Rosanna, Canfield, Chamberlain, Morris Loeb Bequest, National Aeronautics and Space Administration, Nelson, Edward

W., Rocca, Roebing, Springer, Walcott) Deposits: 11 bird skeletons and a marble switch panel (247719, 247990); (through Dr. Alexander Wetmore) 52 bird skeletons, 199 birds, 700 bird skins, an egg, and 49 mammals from southern Africa and Panama (239950, 242355, 242968, 243686, 244633). *Editorial and Publications Division*: (Through Mrs. Eileen McCarthy) 282 U.S. and foreign covers and used stamps (247581). *International Exchange Service*: (Through Jeremiah Collins) 41 U.S. and foreign covers and used stamps (247580). *Library*: (Through Ruth E. Blanchard) 2,560 U.S. and foreign covers and postage stamps (247485). *Found in Collections*: 15 cables (242266); 98 miscellaneous tubes (242268, 242269, 242270, 242271, 242373, 242374, 242375, 242605); 44 cameras and miscellaneous equipment (242660); 24 incandescent lamps (242716); bipolar motor, ca. 1885 (242718); 7 lamp sockets (243021); 24 leeches from Indo-China (243227); brass-trimmed belt (243366); 7 crabs and an isopod (243429); century view camera, with fiber carrying case, and a film holder (243888); wooden case for telephone receiver, 2 clamps from Bell's telephone, G. E. transformer, telephone apparatus made by Bell, and an I-insulator (243904); Howe radio receiver of 1925 (243905); 18 items of electrical equipment (243906); printing telegraph, telegraph keys, and sounders (243907); telephone hand set (243908); radiator and gas light fixtures (244484); 17 minerals from various localities (244622); Peirce gravity measuring pendulum (244667); opalized asbestos from Salt River Canyon, Ariz. (244733); gold from Washoe Co., Nev. (244734); 2 silk printed handkerchiefs (245205); 14 archeological specimens (245301); lithograph of Richard Trevithick, 1771-1833 (245478); roll of Kodak Airgraph safety film (245597); Jacquard woven textile with medallions of Gen. John J. Pershing (245774); restored Spanish earthenware olive-oil jar (245970); terracotta tobacco pipe (245978); U.S. military button, 1812 (246138); early 20th-century electric iron, fiberglass fabric, and a Wheeler and Wilson sewing machine (246144); tintype and cabinet print (246518); 6 volumetric measures (246882); Barbour calculator, 1875 (247030); 7 European and British socket bayonets, late 18th and 19th centuries (247166); 4 theater announcements (247375); 2 plankton nets and a Nansen bottle (247806); calculator comptograph, 1889 (247834); African war shield (247954); needle, coupling hook, and a frog plate (247985). *Collected*: 87 mammals from Panama collected by George Barrett (247862); 1,454 miscellaneous insects from South America collected by Mrs. Doris M. Blake, 1962-63 (248043); insects, marine invertebrates, mollusks, fishes, amphibians, reptiles and mammals, and dried plants and ethnological material from South America collected by Mrs. Doris H. Blake and Dr. Doris M. Cochran, December 1962-January 1963 (246662); 232 fresh-water mollusks, 28 phanerozoms, and 130 crustaceans from Oregon and Washington, and 7,826 Lepidoptera and miscellaneous insects from the Pacific Northwest collected by Dr. J. F. Gates Clarke (243858, 246575, 246790, 247478); 1,000 crustaceans collected by Drs. Thomas E. Bowman and I. G. Sohn (242731); 22 invertebrate fossils, corals, and brachiopods from the Silurian of the Arctic, collected by Dr. Henry B. Collins, 1953-54 (246683); 2,797 phanerozoms, 438 grasses, 133 ferns, 2 cryptogams collected by Drs. Richard S. Cowan and Thomas R. Soderstrom (239482); 900 insects from Bavaria, Germany, collected by Dr. Ralph E. Crabill, Jr. (245577); 8,431 archeological items from 2nd Judicial Division, Alaska, collected by Dr. James A. Ford (242284); jaw of a fish collected by Dr. J. A. F. Garrick (247585); 290 cryptogams from Oregon collected by Dr. Mason E. Hale (248039); 1,914 mammals, 71 birds, 71 reptiles and amphibians, 5 fishes, and 36 mollusks from

Panama collected by Dr. Charles O. Handley, Jr., and Frank M. Greenwell (239437); 31 vertebrate fossils from the lower Permian and Upper Triassic of Texas and middle Oligocene of South Dakota, collected by Dr. Nicholas Hotton, III (246511); partial skull of amphibian and remains of another amphibian in matrix collected by Dr. Nicholas Hotton III and James W. Kitching (245691); earthenware fragments and stoneware fragment, bearing mark of Paul Cushman collected by Edgar M. Howell (245465); 105 phanerogams and 348 ferns collected by Dr. Hans Hürli- mann in New Caledonia (242921); 574 phanerogams, 9 grasses, and 40 woods from Costa Rica and Panama collected by Robert Merrill King (244457); mammals, insects, 100 marine invertebrates, 93 mollusks, 141 fishes, reptiles, 228 birds, and 92 plants from the Malagasy Republic collected by Kenneth I. Lange and Herbert G. Deignan (242082); walrus from St. Lawrence, Alaska, collected by the Los Angeles County Museum and the Hugh H. Logan Foundation (239693); 30 archeological items from the Marcará Valley, Province of Carhuas, Peru, collected by Dr. Marshall T. Newman (242574); 551 miscellaneous objects recovered from wreck sites off Bermuda by Mendel L. Peterson (231558); 1,000 insects, 2 birds, 4 ghost crabs, 22 reptiles, plants, and mammals from Libya collected by Gary L. Ranck (242932); 428 mammals, 117 reptiles, 7 marine invertebrates, insects, and fishes from Iran collected by Gary L. Ranck and Lee Herman (243439); 1,194 marine and land mollusks from Eniwetok Atoll, Marshall Islands, and 14 lots of marine invertebrates collected by Dr. Joseph Rosewater (244404); 84 plant specimens collected in Venezuela by Dr. Velva E. Rudd (243880); 419 marine invertebrates, 41 fishes, 93 mollusks, insects, and plants collected by Dr. Waldo L. Schmitt in the Bahama Islands (239841); 14,000 water beetles and miscellaneous insects from Puerto Rico and the Virgin Islands collected by Dr. Paul J. Spangler (248045); 308 fishes from Bermuda and 5 crustaceans collected by Dr. Victor G. Springer (247250); 77 woods, 355 phanerogams and 7 grasses from Colorado, Oregon, and Wyoming collected by Dr. William L. Stern (244719); 7,664 phanerogams, 403 grasses, 930 ferns, 198 cryptogams, and 63 woods from Peru, collected by Dr. John J. Wurdack (241283); 423 phanerogams and 15 ferns from New Caledonia collected by the University of Zurich (245007). *Made in Laboratories*: Model of a blue whale (212122); model of White & Hazard's wire cable suspension bridge, 1816 (243030); model of primitive Tibetan timber cantilever bridge (243031); model of iron truss bridge, Trumbull, 1841 (243032); wooden carriage, trail and axle, for British Infantry accompanying gun (243461); model of the Finley chain cable suspension bridge, ca. 1810 (243483); model of Chang Heng seismoscope (243714); replica of Chinese clay gear mold, ca. 200 B.C.-200 A.D. (245473); 9 model cannons (245874); model of iron chain suspension bridge, 18th century (246416); model of a section of a cast iron arch ring, Sunderland Bridge over the Wear, 1796 (246696); attachment to osteometric board for measuring thickness of the cranial vault, designed by Dr. Juan R. Munizaga (246853); half of a *Doughty* cutter (247770); 522 photographs of phanerogams, ferns and cryptogams (247921); model of a section of arch tube, St. Louis Bridge, 1874 (256533). *Astrophysical Observatory*: Colorimeter (248010); (through Dr. Richard E. McCrosky) specimen of the Bedminster, N.J., meteorite (246860). *Purchased*: 305 ethnological items from Africa and Cambodia (228606, 238333, 242869, 244218, 245445, 246849); Yap stone money and tea money with Chinese stamp (228912, 242915); 10 rodents from Peru (233731); model of U.S. sloop-of-war *Hartford* (235347); Clovis, N. Mex., meteorite from Curry Co., N. Mex. (235735); model of 1919 box car (236227); drawing of an Egyptian

royal cubit (237790); crab and 8 shrimps (239463, 241236); specimen of the Tribune, Kans., meteorite (240379); 266 marine mollusks and 38 slabs containing approximately 120 echinoids from worldwide localities (240821, 242431, 247926); panorama entitled *The Army of the Cumberland* painted by William De Laney Trimble Travis, with sketches made during the Civil War (241045); 5 photographs mounted by John Laughlin (241142); model of ancient Roman method of founding bridge piers (241245); 3 carcharhinid sharks from Florida (241380); replica of Lord Rayleigh current weigher, ca. 1884 (241706); 3 costume and 3 textile items (242068, 242341, 246067); .22 caliber Quackenbush improved air gun (242177); models of locomotive *Gowan and Marx* and D.C. electric locomotive (242186); 150 ferns from Malaya (242350, 246396); 5 aircraft models (242360, 242361, 243893, 244950); replica of antique quadrant (242376); DeForest responder (242405); 365 Chinese ethnological specimens from Taiwan, 3 birds, 10 specimens relating to agriculture and forest products, and an Ivor Johnson shotgun (242415); 13 prints of bridges (242532, 244093, 244493, 247832); compass, and a collection of various rules, weights, and measures (242721, 246417, 244831, 245634, 245991); replica of Brown & Sharpe Vernier measuring machine of 1851 (242734); artificial stone cast of ancient Roman relief (242870); model of Allis-Chalmers-Westinghouse double compound engine-generator, 1902-04 (242871); model of locomotive *Consolidation*, 1866 (242872); 12 clocks of various makes and types (242903, 243024, 243025, 247803, 247826, 247827, 247833); 354 phanerogams, 6 grasses, and 15 cryptogams (242963, 243560); 2 Dutch engravings, late 17th and early 18th centuries (242974); color etching, *The Divinity School, Oxford*, by Valerie Thornton (242980); mortar, British "Piat" projector (242992); 47 miscellaneous coins and medals and a silver wedge (243002, 243003, 243894, 245323); 2 models of telescopes (243023, 243489); Pike astronomical telescope (243490); manual telescope, ca. 1700 (248009); 9 models illustrating methods of soft ground and hard rock tunneling (243029); 15th-century pen and ink drawing of bloodletting manikin from southern Germany, ca. 1480 (243033); set of French trepanning instruments, 17th century (243034); iron Tule shoe (243148); Conestoga wagon (243296); models of M-60 tank and M-8 armored car, a half track M3A1, and a 105 Howitzer M7 (243345); chiaroscuro woodcut, *Death of Ananias*, by Ugo da Carpi (243355); model of Union Pacific Railroad locomotive *Big Boy* (243428); model of U.S. sloop-of-war *Benicia* (243458); models of 38-gun and 44-gun frigates *Constellation* and *Congress* (243460); 42 U.S. covers and postal documents and 4 U.S. handstamps and marking devices (243590); Geissler tube display (243703); 4 pieces of White House China from the Administration of President Andrew Jackson (243711); 136 mammals from Roan Mt., N.C.-Tenn. (243793); Grant Hammond automatic pistol, Webley Fosbery revolver, and a Pederson semiautomatic rifle (243899); model of wagonette (243902); model of a 1907 Pennsylvania Railroad steel passenger coach (243903); snuff bottle, miner's gold scale, quill-pen cutter, mouse trap, hand scales, ell measure, and 13 trade tokens, 17th, 18th, and 19th centuries (244021); dish bearing log-cabin motif (244103); lot of fashion plates (244128); lot of American watercolors (244129); 18th-century quilted petticoat (244131); 5 antique bottles (244236); reproduction of armillary sphere (244363); 5 multipliers (244394); Model of Long's timber truss bridge, 1830 (244396); model of Main River bridge at Hassfurt, Germany, 1867 (244397); model of Peronet's Neuilly bridge, 1768 (244398); replicas of component parts of Judson slide fastener (244479); Staffordshire redware punch pot and cover (244483); magnetometer and magnetic compass (244490); model of Tagus River bridge,

Alcantara, Spain (244492); model of Niagara railway suspension bridge, 1855 (244497); model of the Rhine River bridge at Schaffhausen, 1755 (244498); model of the Howe deck truss bridge, 1850 (244501); model of the Whipple bowstring truss bridge, 1849 (244502); cutaway model of Jansen microscope (244504); 17,900 Lepidoptera and Coleoptera comprising the Hopfinger collection (244635); 4 base scopes and an M-1 grenade launcher (244637); model of steam yacht *Turbinia* (244647); model of U.S. cartridge box, 1874 (244651); wheels for Revolutionary War gun carriage (244758); U.S. Army Air Force Mark XV bomb sight and stabilizer with bomb sight data equipment book (244953); 2 aquatints, *A Philosopher Showing an Experiment on the Air Pump* and *Lesson on the Orrery* (244964); 2 diffraction jewel pendants of 1770 (244965); Ecuadorian pottery figurine (245070); U.S. Army Air Forces metal flight helmet of World War II (245084); 7 U.S. Civil War artillery items (245085); Italian sanitary poster dated 1723 printed for the city of Guastalla (245103); painting of the *USS Newark* by Edward Russell (245461); U.S. Cavalry sword and scabbard (245463); diorama of an Egyptian bow lathe, ca. 1817 (245474); model showing erection of iron tubes, Britannia bridge, 1848 (245475); 2 top handpieces for an Egyptian bow drill (245477); 4 Dutch hand planes (245479); 10 primitive media of exchange and 6 foreign coins (245613, 245614); model of a Chinese "south-pointing chariot" (245633); box iron, 2 brass candlesticks, carved modillions, 4 turned balusters, wooden bucket, and a Spanish oil jar (245698); 5 antique drafting instruments (245711); model of Baltimore clipper brig *Numa* (245712); scale model of ship *Cohota* (245713); model of side-wheel steamer *Joseph Henry* (245714); scale model of a stern-wheel steel towboat (245715); 2 model locomotives (245716); model of locomotive *Philadelphia* (245729); replica of a Phenakistoscope and a Zoetrope (245775); blue-painted sea chest, 1797, and district school sign (245875); replica of etalon, 1892, used by A. A. Michelson (245892); model of ship *Oliver Cromwell* (245894); model of steamer *Comanche* (245896); model of Friendship sloop *Lizzie M.* (245898); model of Hudson River steamer *Mary Powell* (245899); scale model of Revolutionary War vessel *Rhodes* of Salem (245900); mechanical orrery (245902); reproduction of Agricola touch needles (245903); etching by G. B. Piranesi (245967); replica of Christopher Polhem gage rod, ca. 1700 (245982); model of "Colossus" bridge, 1812 (245987); glass cup, 9-10th century (246141); globe (246219); scale model of schooner (246222); omnibus, ca. 1880 (246324); figurine and carved post from New Guinea (246393); 5 U.S. Civil War knapsacks (246405); U.S. Civil War trunnion level, 1853 (246406); model of U.S. gun ship *Delaware* (246408); model of a sloop-galley, 1806 (246409); oil painting by W. Gilbert Gaul in maple frame (246410); bridge model, 1904-05 (246418); oil painting by George Bacon Wood, Jr., 1875 (246419); replica of geared astrolabe by Muhammad B. Abi Bakr (246532); Nashua watch (246535); meter-bar blank (246536); refractometer (246579); 44 fabric samples, sewing case and clamp, needle case, embroidered silk picture, front of a cap, half of an Englishman's waistcoat, Louis XVI waistcoat, 18th-century purse and 5 19th-century purses, 1840 bouquet holder, and 3 pairs of silver shoe buckles (246610, 246111, 247542); 2 Jean Valin candlesticks, a wooden angel, 3 pewter fountains, a religious plaque, and a sculpture, *Holy Family* (246635); exhibit, "Growth of an Idea" (246693); model of hand-riveting machine, ca. 1850 (246697); model of St. Louis bridge, ca. 1873 (246698); 248 assorted patent medicines (246707); model of locomotive *Rocket* (246799); face mask and photographs of a Peruvian Indian (246852); 684 phanero-

gams from Ecuador collected by the Fielding-Druce Expedition, 1962 (246858); etching, *Profil d'Espagne*, by J. Sanjo (247024); color aquatint, *La Promenade Publique*, by Philibert-Louis Debucourt, and a color etching, *The Snuff-Taker*, by Peter Schenk (247025); 9 scientific instruments (247031); American gentleman's greatcoat ca. 1820, and an umbrella (247070); 10 anthropometric instruments (247142); model of Confederate ram, *Tennessee* (247170); 2 pine candle boxes, wrought andirons, and a tablecloth (247177); 15 examples of linen, paneled pew end, hobby horse, iron butterfly hinge, and a set of 3 Shaker coat hangers (247178); pair of brass andirons (247179); tripod candlestand with octagonal top (247180); set of 4 ship hourglasses (247182); 10 prints and a map, 18th and 19th centuries (247183); wig and stand (247184); school demonstration water pump (247209); replica of Cockcroft-Walton accelerator (247256); original print of an X-ray, 1896, by Roentgen (247371); model of Da Vinci filecutting machine, ca. 1500 (247386); pair of handmade shoes, ca. 1830-40 (247409); 1855 portable stereoscope 17th-century halberd, and a lumber stick (247480); 2 plaster-of-Paris casts made from upper and lower surfaces of skeleton (247508); brass warming pan, bottle holder, tobacco cutter, and a stoneware jar (247632); replica of Pacinotti dynamo (247658); Thomas Mudge #14 chronometer (247659); 18th-century manuscript and doctor's diploma, 1584 (247764); scale model of Revenue Service schooner *Alexander Hamilton* (247769); scale model of *USS Harriet Lane* (247784); collection of fire engine lithographs (247824); Mudge & Dutton bracket clock (247825); bimetallic balance-wheel model (247828); 2 lithographs of Great Western Railway, by John Bourne (247829); model of Tavanasa bridge (247830); dividers of 1835 and 18th-century pincers (247831); English orrery, 1791 (247833); model of *Sharpie* boat hull (247835); model

of a Chincoteague skiff (247836); model of a Bushwack rowboat (247837); model of Cope packet ship *Shenandoah* (247838); model of Ohio River steamer *Buckeye State* (247839); model of ship *Emily F. Whitney* (247840); model of Philadelphia & Reading hopper car, 1880 (247841); model of locomotive *Phantom* (247842); table model of New York Third Avenue elevated railway, 1880 (247843); model of cannery tender *Bonita* (247844); model of brig *Swift* (247845); box iron, wing chair, and a Rhode Island card table (247863); color etching *L'Atlantique*, by Cyril (247876); 1,912 true bugs from Egypt, including 23 holotypes, and 10,000 water beetles from northwestern U.S. (247974, 248044); silk-screen print, *In Black Space*, by Norio Azuma (247978); 7 original engravings of textile machinery and operations, ca. 1835 (247986); model of Eden Park bridge (247991); model of Alvord Lake bridge (247994); model of Kentucky River cantilever bridge, 1876 (247997); model of Plumier metal-cutting lathe, 1689 (247998); 2 Chinese oracle bones (248005); oil painting, *USS Supply* (248047); engraving, *The Jolly Flat Boat Men* (248049); 2 prints of patent looms (248054); Shaker sundial and a lumber scale (248057); model of an 1897 steel hopper car (248059); model of Hog Island steamer *Lake Worth* (248060); 1770 Phaeton model (248061). *National Zoological Park*: Bird skin and 19 bird skeletons and alcoholics (247930). *Office of Registrar*: (Through Helena M. Weiss) 145 miscellaneous U.S. and foreign covers and used stamps (247484).

Smitinand, Tem (See Royal Forest Department)

Snelling, Roy R., Los Angeles, Calif.: 75 ants from North America (247739, exchange). (See also California, State of)

Snyderman, Mr. and Mrs. Isadore, Brooklyn, N.Y.: Gold plaque by Victor D. Brenner commemorating the removal of the remains of John Paul

Jones from Paris to Annapolis in 1905 (239716).

Sociedad de Ciencias Naturales La Salle, Caracas, Venezuela: (Through Brother Gines) 48 marine mollusks from Northern Venezuela (199038).

Soderstrom, Dr. Thomas R., Washington, D.C.: 221 phanerogams, 77 grasses and 12 ferns from Mexico and Venezuela (242247, 245948).

Sohio Petroleum Co., Okmulgee, Okla.: (Through J. D. Castner) Pieces of wooden sucker rods (243705).

Sohl, Dr. Norman F. (See Interior, U.S. Department of the)

Sohn, Dr. I. G., Washington, D.C.: Polychaete worm, 2 axiids, and a mollusk (240580). (See also Interior, U.S. Department of the, and Kornicker, Dr. Louis S.)

Solecki, Dr. Ralph, New York, N.Y.: Shoe, wooden pipe, spindle, comb, and fan from Iraq (242336).

Sommerman, Dr. Kathryn M. (See Health, Education, and Welfare, U.S. Department of)

Sonnedecker, Prof. Glenn (See Wisconsin, University of)

Soot-Ryen, Dr. T. (See Lunds Universitat and Zoologisk Museum)

Soukup, Dr. J., Lima, Peru: 35 phanerogams and 4 ferns from Peru (245419).

South Florida, University of, Tampa, Fla.: 8 grasses from Florida (245495); (through Dr. Olga Lakela) 12 phanerogams from Florida collected by Dr. Lakela (242964).

Southern California, University of, Los Angeles, Calif.: *Allan Hancock Foundation*, (Through Capt. Fred C. Ziesenhenné) 2 star fishes (241149).

Southwestern Louisiana, University of, Lafayette, La.: (Through Dr. Ira S. Nelson) 3 phanerogams (244341).

Spangler, Dr. Paul J., Washington, D.C.: 15,170 miscellaneous insects and 17 crayfishes from North America (243-983, 244221, 247931). (See also Karstens, Jerry)

Spangler, Richard, College Park, Md.: Star-nosed mole from Plummers Island, Md.: (242356).

Spano, Angelo F., Melbourne, Australia: Mounted penguin (244381).

Speers, Mrs. Anne B., Sinton, Tex.: 177 marine mollusks from Texas (238-353).

Speirs, Mrs. John N., Edinburgh, Scotland: Folding tortoise-shell fan, 19th century (243826).

Spencer, Dr. Kenneth A., London, England: 15 leafminers, worldwide (247357).

Spencer, Roland (See Bolte, William J.)

Springer, Ethel M., Alexandria, Va.: Beaded bag used by Maria Harlow Smiley and doll's clothing (243870, 244002).

Springer, Dr. Victor G., Washington, D.C.: (Through Dr. Arsenio N. Roldan, Jr.) 7 sharks from the Philippines collected by donor (243108). (See also Interior, U.S. Department of the)

Springer Fund, Smithsonian Institution: 129 crinoids and echinoids from the Oologah and Fayetteville formations of Oklahoma and the Paleozoic of Western U.S.; 10 slabs with 96 micridarid specimens from the Permian of Washington Co., Utah; 6 cystoids from the Cambrian near Pioche, Nev., and 2 slabs containing fossil crinoids from Kane Co., Utah (242676, 242957, 246398, 246684).

Squires, Dr. Donald F., Washington, D.C.: 11 fossil gorgonians from New Zealand (244665); 129 corals from the Tertiary of various localities (243672). (See also Ballent, Joseph E., and Yale University)

Sri Paku Alam VIII, Djakarta, Indonesia: 25 Indonesian court costumes (245067).

Staack, Betsy R., Washington, D.C.: Doll house furniture and furnishings (243707).

Stack, Benjamin, New York, N.Y.: Silver mainz "albus," 1693, colonial and obsolete State Bank notes, and medal issued by the Grand Lodge of Massachusetts in commemoration of Seno D. Nickerson, 1823 (243583, 245600, 245778).

Stack, Harvey, New York, N.Y.: 19

medals and tokens (243585, 245780, 245609) ; 2 uncut sheets of notes issued by the Norfolk Bank and 10 emergency notes issued by General Gordon in Khartoum, Sudan (245779, 245788).

Stack, Joseph B., New York, N.Y. : 4 notes issued in 1802-03 by the Exchange Bank in Newcastle-upon-Tyne, Great Britain, and 2 1720 medals relating to John Law and his Mississippi System (245792, 245803).

Stack, Morton, New York, N.Y. : 7 historical silver and copper medals and tokens, 5 monetary decrees and documents relating to the history of numismatics, and 3 aquatints (245782, 245794, 245801).

Stack, Norman, New York, N.Y. : French coin balance of the 18th century (242368) ; original appointment by President Zachary Taylor of William M. Meredith as Secretary of the Treasury, March 8, 1849 (243586) ; 4 ancient Greek silver and bronze coins (245608) ; 44 artistic and commemorative bronze medals and plaquettes (245781, 245786) ; 3 examples of Isle of Man card money issued in 1816 (245791) ; 18 emergency issues from the East European sector, World War I and Post-World War I (246691).

Stack's, New York, N.Y. : 14 ancient coins (245790) ; 68 original drawings of coin designs, various medals, and other material illustrating significant phases in the development of coin and medal design (245795, 245799, 245800) ; 1,240 seals of financial institutions and various official agencies in Bavaria and Saxony (245796) ; 8 pieces illustrating 19th-century U.S. mint history and coin design (245797) ; 754 U.S. checks and other documents of value (246692).

Stainforth, Dr. R. M. (See Creole Petroleum Corp.)

Stanford University, Stanford, Calif. : (Through Hugh H. DeWitt) 14 fishes, including 5 paratypes, collected in McMurdo Sound, Antarctica (242453) ; (through Dr. George S. Myers) angler fish and 8 frogs, paratypes, from Colombia, Ecuador, and the Philippine Islands (238219, 244809, exchanges) ; 6

fishes, including a holotype, from Antarctica and the Gulf of Thailand (241919, 244674).

Stark County Historical Society, Canton, Ohio : (Through Edward T. Heald) McKinley commemorative poster and leaflet (243896).

State, U.S. Department of (See District Bank Limited)

State Historical Society of Colorado, The, Denver, Colo. : (Through Orian L. Lewis) 4 badges (242520).

State Street Bank & Trust Company (See Mosher, Mrs. Helen Augusta)

Stauder, Hans (See Paillard Incorporated)

Stearns, R. E., Baltimore, Md. : 397 archeological materials from Florida and Maryland sites (247561).

Steele, Glenn E., Garden Home, Ore. : 34 ilvaite specimens from South Mountain, Idaho (246699, exchange).

Steeves, Harrison R., III, Birmingham, Ala. : 5 isopods, including holotype, allotype, and paratype (241206) ; 3 scarab beetles from Georgia and Tennessee (247349).

Steger, Mr. and Mrs. Daniel, Tampa, Fla. : (Through Dr. and Mrs. Francis A. Smith) 18 minute marine clams from dredgings off the west coast of Florida (242276).

Steinbarger, Mrs. Helen T., Washington, D.C. : 573 U.S. philatelic covers from the General Thomas Thomson Taylor correspondence (242712).

Stern, Louis J., Gainesville, Fla. : Phanerogam (245245).

Stern, Dr. William L., Washington, D.C. : 2 ferns from the Hawaiian Islands (242469) ; 615 wood specimens, 99 phanerogams, and 6 herbarium specimens from worldwide localities (244460, 244939, 247463) ; 3,600 microscope slides of sectioned and macerated wood (244941).

Sterne, Mrs. Maurice, Mount Kisco, N.Y. : Balinese scroll (245562).

Stewart, J. George (See Architect of the Capitol)

Stewart, John I. (See Burnham Golden Jubilee, Inc.)

- Stewart, Robert G. (See National Trust for Historic Preservation)
- Stewart, Robert H., Balboa Heights, Canal Zone: Marine mollusk from Panama (248042).
- Steyermark, Dr. Julian A. (See Ministerio de Agricultura y Cria)
- Steyskal, George, Washington, D.C.: 503 miscellaneous insects, including types, from worldwide localities (238414, 242492, 243689, 243690, 244744, 244745, 245956, 246133, 246134, 246516).
- Stief, William I., Arlington, Va.: Shell jewelry made from a marine mollusk (247948).
- Stiefel, Mrs. Alfred C., Arlington, Va.: 20 dresses, accessories, fashion magazines, and 2 examples of machine made lace (244543).
- Stirling, Dr. Matthew W., Washington, D.C.: 8 pieces of aboriginal bark paper from Mexico (245069).
- Stock, A. Dean, St. George, Utah: 27 mammals from Utah (245517).
- Stock, Dr. J. H. (See Zoologisch Museum)
- Stockvis, Mr. and Mrs. A. Philip, Alexandria, Va.: (Through Howe P. Cochran) 2 parian statuettes, a perspective glass with 8 prints, a Chippendale chair, and a small bed, late 18th and mid-19th centuries (245777).
- Stockwell, Mr. and Mrs. H. O., Hutchinson, Kans.: Norcatur meteorite from Kansas (244471).
- Stoller, Ezra, Rye, N.Y.: 4 framed color prints and 2 color transparencies of architectural photographs (240871).
- Stone, Dr. Benjamin C., Agana, Guam: 136 phanerogams, 44 grasses, 12 ferns and 4 cryptogams (243876).
- Stransberry, Mrs. Don C. (See McDowell, Robert William)
- Strasburg, Dr. Donald W. (See Interior, U.S. Department of the)
- Straw, Dr. Richard M., Los Angeles, Calif.: 5 bee flies from Mexico (241209).
- Strawn, Dr. Kirk (See Arkansas, University of)
- Streeter, Donald, Iona, N.J.: 9 tools, keys, and lock picks, early 18th and 19th centuries (245629).
- Strelak, Joseph, Waukegan, Ill.: 54 first-day wrappers of Canada, Canal Zone, the United Nations, and the U.S. (243710, 247578).
- Strimple, Harrell L., Iowa City, Iowa: 2 fossils from the Fayetteville formation, Oklahoma, paratypes (245953); brachiopod from the Pennsylvanian east of Tulsa, Okla. (244378).
- Strohecker, Dr. H. F., Coral Gables, Fla.: 3 grasshoppers, holotype, allotype, and paratype, from the U.S. (243568). (See also Middlekauf, Dr. W. W.)
- Strowger, E. B. (See Niagara Mohawk Power Corp.)
- Struhsaker, Paul J. (See Interior, U.S. Department of the)
- Sudlow, W. R. (See Texas Instruments, Inc.)
- Sullivan, Robert, Minneapolis, Minn.: (Through Dr. Herbert R. Axelrod) fish from Thailand (242546).
- Sulzer, Alexander J., Atlanta, Ga.: 24 fresh-water snails, from Candler Lake, Atlanta, Ga. (241120).
- Summers, Ray, Petaluma, Calif.: 5 marine mollusks, paratypes, from Easter Island (243553).
- Surange, Dr. K. R. (See Birbal Sahni Institute of Palaeobotany)
- Surber, Eugene W., Cincinnati, Ohio: 14 fresh-water clams from Ohio (244301).
- Sussman, Children of Abraham Moses, Jamaica, N.Y.: (Through Mrs. Bruce Vickers) 70 amber specimens from the Baltic Sea given in memory of donors' father (247154).
- Suter, Dr. Wallace, Kenosha, Wis.: 522 isopods (244911).
- Suter, Walter R., Evanston, Ill.: 45 land mollusks from Eastern U.S. (240461).
- Sutherland, Mrs. W. A., Washington, D.C.: 31 pieces of European porcelains and a dish from Turkey (243837, 244873, 245961, 246140).
- Sutton, Charles (See McKendree Methodist Church)
- Swan, Dr. Emery F., Durham, N.H.: (Through Dr. Paul L. Illg) 3 amphipods (230918).
- Swanson, Floyd (See Atlantic Research Corp.)

Swenson, Mrs. Edwin L. (See Traver, Lucy Lambert Cookingham)

Swicegood, Claude, Maryville, Tenn.: Coral from Tennessee (247539).

Switzer, Dr. George, Washington, D.C.: Actinolite from Sonoma Co., Calif. (244730). See also Pinch, William W.)

Swomley, Calvin, Buckeystown, Md.: Incomplete skeleton of Indian child and small lot of potsherds from near Buckeystown (242575).

Syz, Dr. Hans, Westport, Conn.: 17 pieces of 18th-century German porcelains (245497).

Szancer, Dr. Henryk, Flushing, N.Y.: 4 Polish notes (241707).

Szczawinski, Dr. Adam F. (See Provincial Museum)

Taft, Charles P., Cincinnati, Ohio: Dress suit worn by President William H. Taft (246918).

Tagawa, Dr. M. (See Kyoto, University of)

Takaki, Dr. Noriwo, Mizuho-ku, Nagoya, Japan: 300 mosses from Japan (240930, exchange).

Takata, Michio (See Hawaii, State of)

Talbot, Dr. F. H., Cape Town, Africa: 16 alcyonarians (229917).

Talmadge, Robert R., Willow Creek, Calif.: 48 brackish-water mollusks and 3 land snails, paratypes, from California (237611, 243556).

Talon, Inc., Meadville, Pa.: (Through F. C. Layng) slide fastener element machine and a zipper (247984).

Tamolang, Dr. Francisco N. (See Forest Products Research Institute)

Tamsitt, Dr. James R., Bogotá, Colombia: Collection of frogs from Colombia (242396).

Tamsitt, Dr. James R., and Valdivieso, Dário, Bogotá, Colombia: 18 amphibians from Colombia and Panama collected by donors (247235).

Tansill, Robert W., Evanston, Ill.: Marine mollusk from Yap, Caroline Islands (242701).

Tapscott, Mrs. Ida Latta, San Angelo, Tex.: Civil War fife, volunteer certificate, and discharge (246767).

Taube, Clarence M., Ann Arbor, Mich.: 4 crayfishes (242848).

Tavares, Dr. C. N. (See Instituto Botânico and Universidade de Lisboa)

Tavares, Isabelle (See California, University of)

Tavares, Dr. Sérgio, Recife, Pernambuco, Brazil: 167 phanerogams, 10 grasses, 2 cryptogams, and 8 ferns from Brazil (243665, 244273, 245939).

Taylor, Dwight W. (See Interior, U.S. Department of the)

Taylor, Dr. Edward H., Lawrence, Kans.: 2 paratypes of a bat (247016).

Taylor, George W. (See Woodward Governor Company)

Taylor, Dr. J. S., Port Elizabeth, South Africa: 89 wasps, 7 bees, and ichneumonids from Africa (242489, 245458).

Taylor, James (See Taylor, William J. R.)

Taylor, Keith L., Albury, N.S.W., Australia: 26 plant lice from Australia (244751).

Taylor, Martha M., Washington, D.C.: Black-chiffon fan (242602).

Taylor, Prentiss, Arlington, Va.: Preliminary sketch, transfer sketch, zinc plate, and artist's proof of the lithograph *La Presa-Marfil* (247366). See also Washington Society of Printmakers)

Taylor, William J. R., and Taylor, James, South Woodstock, Vt.: 18th-century cannon stove (245158).

Tebo, Dr. J. D. (See Bell Telephone Laboratories)

Technische Hogeschool, Delft, Netherlands: (Through J. L. H. Bemelmans) 13 billitonites from Indonesia (245235, exchange).

Telander, K. W. Bradenton, Fla.: 3 desk clocks (245737).

Temple, Col. Harry D. (See Defense, U.S. Department of)

Templeton, J. P. (See Joseph Dixon Crucible Co.)

Tennessee, University of, Knoxville, Tenn.: (Through Dr. A. C. Cole) approximately 250 ants, including 125 paratypes, from Western U.S. (244742).

Tennessee Game and Fish Commission, Nashville, Tenn.: (Through C. E.

- Ruhr) 85 fishes from Tennessee (244105).
- Terrell, Dr. Edward E., Beltsville, Md.: 148 phanerogams, 12 grasses, and 13 ferns from Minnesota (243663).
- Territory of Papua and New Guinea: *Department of Forests*: 171 phanerogams, 10 grasses, 11 ferns, and 2 cryptogams from New Guinea (247858, exchange).
- Texas, State of: *Game and Fish Commission*: (Through Henry Compton) 3 shrimps and 2 stomatopods (237503).
- Texas, University of, Austin, Tex.: 5 grasses (243443, exchange).
- Texas Instruments, Inc., Houston, Tex.: (Through W. R. Sudlow) Worden gravimeter (248052).
- Texas Research Foundation, Renner, Tex.: 147 phanerogams and 8 grasses from worldwide localities (232610, 242349); (through Dr. Donovan S. Correll) fern from Texas (245941, exchange).
- Texas Speleological Survey, Austin, Tex.: (Through James R. Reddell) 4 crayfishes (246667).
- Texas State Department of Health Laboratories, Austin, Tex.: (Through Dr. J. S. Wiseman) ectoparasitic worm (242815).
- Thao, Nguyen Duy, Saigon, South Viet-Nam: 55 miscellaneous used postage stamps of South Viet-Nam (244957).
- Thatcher, Dr. Vernon E., Balboa Heights, Canal Zone: Holotypes of trematode worms from Tabasco, Mexico (245246).
- Theis, Pasteur Edouard (See Collège Cévelon)
- Thistle Metal Spinning Company, New Haven, Vt.: (Through Edward A. Young) 4 brass cuspidors (246218).
- Thos. Mills & Bro., Inc., Philadelphia, Pa.: (Through John G. Mills) 40-quart ice-cream freezer (241690).
- Thomas, Mrs. Edward, Lorton, Va.: (Through Mrs. Adele Marble) Mexican onyx beads given in memory of Dr. John Marble (245688).
- Thomas, Mrs. Gloria, Kingston, Jamaica, B.W.I.: 2 sea anemones (231-601).
- Thomas, William, Ann Arbor, Mich.: Set of antlers of Schomburgk's deer (243868).
- Thompson, A. R. (See Bell Telephone Laboratories)
- Thompson, Mrs. C. M., Mansfield, Pa.: (Through Rowland Lyon) late 19th-century glass olive-oil bottle (245971).
- Thompson, Fred G., Coral Gables, Fla.: 21 land snails, paratypes, from Mexico and a mollusk from Rainbow Springs Run, Fla. (243223, 244006).
- Thompson, George Richard (See Thompson, Virginia Adler)
- Thompson, Prof. J. T. (See Johns Hopkins University)
- Thompson, John R. (See Interior, U.S. Department of the)
- Thompson, Virginia Adler (deceased): (Through George Richard Thompson) sleeve cuff worn by Laura Keen (242707).
- Thomson, Dr. John W. (See Wisconsin, University of)
- Thornton, Dr. Wilmot A. (See Universidad del Valle)
- Threadgold, Dr. Ian, Madison, Wis.: 13 minerals from Tasmania (242675).
- Tidemand, Odin, Baltimore, Md.: 3 limestone "rattle boxes" from Moen's Cliffs, Denmark (244624).
- Timberlake, Prof. P. H., Riverside, Calif.: 23 bees from North America (243577).
- Time Incorporated, New York, N.Y.: (Through Alex Groner) V-mail edition of Time magazine (247174).
- Tipton, Maj. V. J. (See Defense, U.S. Department of)
- Tissot, Dr. A. N., Gainesville, Fla.: 65 amphipods (242876).
- Titchell, Haskell C. (See Bulova Watch Co.)
- Titschack, Prof. E., Hamburg, Germany: 8 thrips from Germany and 3 slides of thrips from Australia and England (243860, 246473, exchanges).
- Tobey, Alton S., Larchmont, N.Y.: Oil painting, *Greek Bronze Age Warriors*, by donor (247570).
- Todd, Ruth (See Hiltermann, Dr. H., Hornibrook, Dr. N. de B., Interior, U.S. Department of the)

Token and Medal Society, Baltimore, Md.: (Through Dr. George Fuld) 13 American contemporary silver and copper medals (245802). (See also Burnham Golden Jubilee, Inc., Capitol Medals, Inc., Carroll, Maj. Sheldon S., Chatham Medals Committee, Kotler, Joseph Mark, Mishler, Clifford, and Wilmot's)

Tokyo, University of, Tokyo, Japan: (Through Dr. Tokiharu Abe) 14 sharks and a chimaerid from Japan (247051).

Tomich, Dr. P. Quentin (See Hawaii, State of)

Tormey, Miriam M., New York, N.Y.: Silk crazy-patch quilt top, 1886, and 2 matching pillow shams (247329).

Toronto, University of, Toronto, Canada: (Through Dr. Roy F. Cain) 75 cryptogams from Mexico (242911).

Towne, Rubenstein & Foster (See Cushing, Katherine A.)

Townes, Dr. Henry, Ann Arbor, Mich.: 30 wasps, holotypes (245773).

Trahern, Conrad L. (See Post Office Department)

Traub, Colonel Robert (See Defense, U.S. Department of, and Maryland, University of)

Traver, Lucy Lambert Cookingham (deceased): (Through Mrs. Edwin L. Swenson) woman's dress, drawstring bag, marriage certificate, and shawl (244988).

Treasury, U.S. Department of the, Washington, D.C.: Ensign from the U.S. Coast Guard cutter, *Avoyel* (243459); 25-foot lifeboat, capstan cap, and bronze plaque (245398). *Alcohol and Tobacco Tax Division*: Zoli, Italian automatic pistol (247165). *Bureau of Customs*: Approximately 221 pieces of jewelry and minerals, 2 gold watch cases, gold findings, and a mink stole and jacket (242160, 242482, 242483, 242484, 242585, 242669, 243324, 244348, 244469, 245293, 245401, 245451, 245452, 245570, 245571, 246118, 246608, 246609, 247753, 247820); bird skin (243851); collection of pharmaceutical and medicinal materials (245480); Belgian machine pistol (247018); .38 caliber pistol (247020); 119 ethnological

items from Hong Kong and 144 bronzeware pieces from Bangkok, Thailand (247141); antique wood carving from India (247225). *Bureau of the Mint*: 6 trial strikings of new coins issued by the French Mint in 1961-62 (244665). *Bureau of Engraving and Printing*: (Through Henry J. Holtzclaw) four-plate, flatbed, "Hoe" intaglio printing press complete with automatic feeder and take-off devices (243014); 194 certified plate proofs of U.S. postage stamps (245468). *Coast Guard*: 48-star National ensign flown by the U.S. Coast Guard icebreaker *Storis* during its passage around the North American Continent, 1957 (244090); (through Capt. V. E. Day) 28 miscellaneous items pertaining to U.S. Coast Guard activities and vessels (242359); (through Adm. E. J. Roland) 7 models of U.S. Coast Guard vessels (247872, 247873, 247875); (through Rear Adm. W. J. Smith) model of U.S. Coast Guard cutter *Fessenden* and a half-model of an unknown vessel (248087). *Internal Revenue Service*: Winchester rifle and a Browning shotgun (247359); (through Mortimer M. Caplin) 5,000 Internal Revenue 10-cent documentary commemorative stamps and 13 pieces of associated production material (243015, 243709); 15,000 U.S. Internal Revenue stamps, series 1940 (247646); (through Oscar Neal) aircraft machine gun, 1918 (246207).

Trigueiros, Florisvaldo dos Santos, Rio de Janeiro, Brazil: Set of 1956 commemorative coins and medals from Brazil (245603).

Truman, O. H., Hollywood, Calif.: No. 2 gravity meter (240475).

Tryon, Dr. Rolla M. (See Harvard University)

Trytten, Dr. M. H., Washington, D.C.: 2 tektites from the Philippines (247121).

Tuck, Edward, Washington, D.C.: Red and blue macaw (242352).

Tucker, Edward B., Somerset, Bermuda: 3 clay pipes and 3 musket balls from the wreck of the *Eagle*, ca. 1658 (244653).

Tulane University, New Orleans, La.:

(Through Dr. George Henry Penn) 3 crayfishes (243606); (through Dr. Alfred E. Smalley) 3 shrimps, holotype and 2 paratypes (246025). *Newcomb College*: (Through Dr. Milton Finger- man) crayfish and 2 isopods (245327, 245350).

Tulsa, University of, Tulsa, Okla.: (Through Dr. Albert P. Blair) 83 crayfishes (245150, 246978).

Turnbull, Colin M. (See American Museum of Natural History)

Turnbull, W. W. (See Humble Oil & Refining Co.)

Turner, Dr. Charles H. (See California, State of)

Turner, George T., Washington, D.C.: 1,357 miscellaneous U.S. and foreign postage stamps and covers (245882, 247647).

Tuve, Dr. M. A. (See Carnegie Institution of Washington)

Uihlein, Mrs. Viola, Albuquerque, N. Mex.: Pair of pince-nez eyeglasses (245-105).

Ulvinen, Tauno (See Oulu, University of)

United Arab Republic, Government of, Cairo Egypt: (Through Saad El-Chichini) 65 mint postage stamps and first-day covers of the United Arab Republic (243013, 245619).

United Nations Postal Administration, United Nations, N.Y.: (Through D. Thomas Clements) 650 United Nations postage stamps (244760, 245621, 246526, 247378).

United States Information Agency, Washington, D.C.: (Through Edward R. Murrow) presentation album containing three sheets of stamps commemorating the centenary of the liberation of Southern Italy by Garibaldi (242265).

Universidad de Buenos Aires, Buenos Aires, Argentina: (Through Dr. Arturo J. Amos) 99 invertebrate fossils from Argentina (233214, exchange).

Universidad de Nariño, Pasto, Nariño, Colombia: 44 phanerogams, 2 grasses, and a fern from Colombia (243-181).

Universidad del Valle, Cali, Colombia: (Through Dr. Wilmot A. Thorn-

ton) 4 toads from Rio Raposo, Valle, Colombia (244328).

Universidad Nacional Autónoma de Mexico, Mexico, D.F.: 888 phanerogams from Mexico collected by Dr. Faustino Miranda (243664, exchange).

Universidad Nacional de Trujillo, Trujillo, Peru: 21 phanerogams from Peru collected by Dr. Abundio Sagástegui Alva (246013).

Universidade de Lisboa, Lisbon, Portugal: (Through Dr. C. N. Tavares) 25 lichens (247004, exchange).

Universidade do Paraná, Curitiba, Paraná, Brazil: 40 phanerogams, 6 grasses, and 12 ferns from Brazil (242-855).

Universidade do Rio Grande do Sul, Porto Alegre, Brazil: (Through Dr. Darcy Closs) 7 Foraminifera from the Gulf Coast area (247081, exchange).

Université de Liège, Liège, Belgium: (Through Dr. J. L. Ramaut) 10 lichens from Africa (242036).

Université de Montpellier, Montpel-lier, France: (Through Prof. A. L. M. Bonnet) cultivated fern (243828).

Université de Paris, Paris, France: (Through Hubert Curien) 2 minerals from Iran (242673, exchange).

Universitetet i Bergen, Bergen, Nor- way: 42 phanerogams, 2 grasses, and 6 ferns from Norway (247816, exchange).

University College of the West In- dies, Kingston, Jamaica, West Indies: (Through Dr. Ivan M. Goodbody) 77 sea anemones and 213 amphipods (230-310, 237992).

University School of Forestry, Brno, Czechoslovakia: Botanical Institute: (Through Dr. Antonín Vězda) 90 lichens (244940, 247003, exchanges).

Uribe Uribe, Dr. Lorenzo (See Instituto de Ciencias Naturales)

Unknown: Dagger and scabbard from Japan (237257).

Utah, State of, Salt Lake City, Utah: Department of Fish and Game: (Through Albert W. Heggen) 2 bird skins (247626).

Utah State University, Logan, Utah: (Through Dr. Arthur H. Holmgren) 43

phanerogams, 13 grasses, and a fern (224110).

Utexiquial Products, Inc., South Plainfield, N.J.: Stock exchange "Bull and Bear" medals used in determining sequence of buy and sell orders (247376).

Valdivieso, Dário (See Tamsitt, Dr. James R.)

Valdosta State College, Valdosta, Ga.: (Through Prof. Wayne R. Faircloth) fern from Georgia (244966).

Valluzzo, George P. (See Danbury Centerless Grinding Co.)

Vanderbilt University, Nashville, Tenn.: (Through Dr. Charles E. Farrell) 26 fishes from Tennessee (244106).

Vanderhoof, Major J., USMC (Ret.), Cocoa Beach, Fla.: 2 Japanese vacuum tubes from World War II (242072).

van der Schalie, Dr. Henry (See Michigan, University of)

Van Engel, Dr. W. A. (See Virginia, State of)

Van Keuren Co., Watertown, Mass.: (Through Robert T. Parsons) light deflection bar (244491).

Van Lint, Victor J., Fontana, Calif.: $\frac{1}{4}$ interest in postage stamp collection (245128).

Van Nierop, Johanna, Washington, D.C.: 4 pairs of women's gloves, ca. 1905-25 (242508).

van Regteren Altena, Dr. C. O., Leiden, Netherlands: 30 marine and brackish-water mollusks from Surinam (247476).

Vatikiotis, Sozon, Tarpon Springs, Fla.: 59 marine mollusks from western Florida (230184).

Velich, Ralph, Omaha, Nebr.: Meteorite from Kennard, Nebr. (245231).

Venezuela, Republic of: (Through Carlos Agostini) 27 mint postage stamps of Venezuela (245213).

Vermont, University of, Burlington, Vt.: *Pringle Herbarium*: (Through Leopold A. Charette) 2 ferns (247153, exchange).

Vervoort, Dr. W. (See Rijksmuseum van Natuurlijke Historie)

Vězda, Dr. Antonín (See University School of Forestry)

Viana, Dr. M. J., Buenos Aires, Argen-

tina: 26 beetles from South America (247724).

Vickers, Mrs. Bruce (See Sussman, Children of Abraham Moses)

Victoria University of Wellington, Wellington, New Zealand: (Through Dr. H. Barraclough Fell) 3 echinoids and 3 starfishes (245015, 247107).

Vidal, Rafael Murillo (See Mexico, Government of)

Viet-Nam, Government of: *Department of Education*: 67 items of Vietnamese handiwork (244852).

Villalobos, Dr. Alejandro (See Instituto de Biologia)

Vinson, Dr. J. (See Mauritius Institute)

Virginia, State of: *Department of Agriculture & Immigration*: (Through Harry L. Smith) phanerogam (244463). *Fisheries Laboratory*: (Through William H. Massmann) 8 marine fishes from off the Virginia coast (234259); (through John C. McCain) 12 sea anemones and 1 lot of Foraminifera from Virginia (244245); (through Dr. W. A. Van Engel) 8 copepods (234239); (through Dr. Marvin L. Wass) 112 sea anemones (238407). *Institute of Marine Science*: (Through George C. Grant) 77 chaetognath worms (242792); (through Dr. William E. McCaul) 2 nemertean worms, holotypes (243283).

Vlastivedné Múzeum V Bojniciach, Bojnice, Czechoslovakia: (Through Dr. Jan Brtek) 59 anostracan crustaceans (246563, exchange).

Vogel, Dr. Karl, New York, N.Y.: Crystal plate watch (245628).

Vogel, Robert M., Takoma Park, Md.: Electric railway manual controller, 1910, 4 pieces of locomotive and trolley equipment, 2 copper engravings, and a typewriter stand (244239, 245893, 245984, 247804).

Vokes, Mrs. Emily H., New Orleans, La.: Marine mollusk from Jamaica (247035).

Volborth, A. V., Reno, Nev.: 4 minerals from Nevada (244729).

Voous, Dr. K. H. (See Zoölogisch Museum)

Wagner, Vice Adm. F. D., Warring-

ton, Fla.: Flight-log book and 6 photographs of naval officers and ships (247957).

Walcott Fund, Smithsonian Institution: 41 crabs and lobsters from the Mesozoic of Texas (242644); 2 lots of fossils from the Ordovician of Oklahoma and the Permian of Kansas (242679); 2,000 fossil echinoids from the Caloosahatchee and Tamiami formations of southwestern Florida collected by Dr. Druid Wilson, Douglas Smith, and Dr. Porter M. Kier, November and December 1961 (242682); 4,000 mollusks from the Upper Cretaceous of Colorado (243839); 5,000 invertebrate fossils from the Miocene of Hampton, Va., collected from Rice's pit by Dr. and Mrs. G. A. Cooper, Dr. Thomas Gibson, and Dr. and Mrs. Druid Wilson, October 1962 (244631); approximately 50,000 invertebrate fossils, mostly mollusks, from the Tertiary of Florida (246399).

Waldo, Mrs. Ruth Chapin, Salt Lake City, Utah: Specimen of the Duchesne Co., Utah, meteorite (242671).

Walker, Dr. T. J., Gainesville, Fla.: 22 crickets from the U.S. (246125).

Walsh, Mrs. Helen (See Walsh, Joseph H.)

Walsh, Joseph H. (deceased): (Through Mrs. Helen Walsh) television and 6 early radios (244092).

Walstrom, Charles D. (See Walstrom, Robert E.)

Walstrom, Robert E. and Charles D., Fresno, Calif.: 2 gillespites, sanbornite with pyrite, 4 taramellites in quartz, and 6 sanbornites from Fresno Co., Calif. (243843).

Walton, Capt. Bryce C., Fort McPherson, Ga.: Land planarian (231705).

Walton, Margaret (See Hobbs, Dr. Horton H., Jr.)

Wänke, Dr. H., Mainz, Germany: 24 tektites from the Philippines (244727).

Warlick, Mr. and Mrs. James B., Washington, D.C.: 2 appliqued quilts, ca. 1860 (244875).

Warmke, Mrs. Germaine L. (See Institute of Marine Biology)

Warner, Monty, Radnor, Ohio: Dobson fly from Ohio (243576).

Warren, Prof. L. O., Fayetteville, Ark.: 11 scarab beetles from Arkansas (247162).

Warren, Richard Dean, Gainesville, Fla.: 3 crayfishes (244114).

Wasbauer, Dr. Marius S. (See California, State of)

Washington, University of, Seattle, Wash.: (Through Dr. Karl Banse) 8 polychaete worms (246589); (through Dr. Kenneth K. Chew) 8 isopods (240797); (through Gayle A. Heron) 34 copepods (246588); (through Dr. Paul L. Illg) 2 sea anemones (244374).

Washington Society of Printmakers, Arlington, Va.: (Through Prentiss Taylor) color lithograph, *Black Fire*, by Jack Perlmutter (247364).

Wass, Dr. Marvin L. (See Interior, U.S. Department of the, and Virginia, State of)

Watanabe, Dr. Takeo, and Kato, Dr. Akira, Tokyo, Japan: (Through Dr. Duncan McConnell) 2 minerals from Japan (242584).

Water, James B., Washington, D.C.: 3 Darling, Brown & Sharpe scales, ca. 1880 (244234).

Waterhouse, James, Chincoteague, Va.: 1840 letter concerning the Whig Party and William Henry Harrison (246879).

Watkins, A. R. (See Chicago Natural History Museum)

Watkins, C. Malcolm, Washington, D.C.: Stoneware insulator used during the Civil War (245972); fragment of glass slag and melting pot from Kohlenberg glass house site, Frederick Co., Md. (246877). (See also Quynn, Prof. and Mrs. William Rogers)

Watkins, Mrs. Charles H., Middleton, Mass.: 2 red earthenware forms for making shoes or stockings (245969).

Watson, George, Sturbridge Village, Mass.: Early race knife, political campaign torch and lantern, and a hand-made ladder (244495, 245215, 247026).

Waxman, Mrs. Ruth, Silver Spring, Md.: 2 women's hats, 1912 (246195).

- Way, Elwood J., Washington, D.C.: (Through Early American Industries Assoc.) 6 early hand tools (247521).
- Weatherly, A. Earl, Greensboro, N.C.: 3 O. Henry anniversary covers (244091).
- Weaver, B. Woodruff (See Barnes, Col. Theodore)
- Weaver, Mrs. B. Woodruff, Washington, D.C.: Pair of high button shoes and a lot of ascots of the 1890's (242517). (See also Barnes, Col. Theodore)
- Weaver, Clifton S., Lanikai, Kailua, Hawaii: 13 marine shells from Argentina, Hawaii, Japan, and South Africa (242935).
- Webb, Mrs. George, Hampton, Va.: 700 invertebrate fossils from the Miocene of Hampton, Va. (244732).
- Webb, Lt. Col. Joseph E., Jr. (See Defense, U.S. Department of)
- Webb, Prof. Robert W. (See California, University of)
- Weber, R. E. J. (See Netherlands, Government of)
- Weber, Dr. William A. (See Colorado, University of)
- Webster, Mel L. (See Ralph Waldo Emerson Junior High School)
- Webster, Mrs. Natalie P. (See Peters, Mrs. Natalie W.)
- Weech, C. Sewell, Baltimore, Md.: Pair of lace mitts, 1885 (246981).
- Weems, Dr. Howard V., Jr., Gainesville, Fla.: 2 wasps from Florida (246911, exchange). (See also Florida, State of)
- Weidenbenner, F. N., Trona, Calif.: Kurnakovite from Boron, Calif. (243063, exchange).
- Weiland, Erwin O., McLean, Va.: (Through Early American Industries Assoc.) 19th-century mitre shooting board and a spoke shave (247517).
- Weir, Lorene V., Bainbridge Island, Wash.: World's Fair trade dollar and an Alaskan 1-dollar token, 1962 (243584).
- Weiss, Helena M. (See Smithsonian Institution)
- Weiss, Leroy (See A.I.T. Diamond Tool Co.)
- Weitzman, Dr. Stanley H., Washington, D.C.: 20 aquarium fishes (247251).
- Welch, Dr. Bruce L., Durham, N.C.: 3 sea anemones (242561).
- Wells, C. Edward, Bridgewater, Conn.: (Through Smithsonian Institution) 24 archeological items from Iran (247717).
- Wells, Dr. G. P., London, England: 4 polychaete worms, paratypes (243310).
- Wells, Dr. Harry W., Tallahassee, Fla.: 42 nudibranchs, including 6 holotypes, from North Carolina and Maryland (239513).
- Welstein, Irving, New York, N.Y.: 10 mint and used imperforate postage stamps of Canada and Newfoundland (245804).
- Werner, Dr. Floyd G., Tucson, Ariz.: 14 antlike flower beetles from North and South America and 6 darkling beetles from Arizona (247347). (See also Arizona, University of)
- West Virginia University, Morgantown, W. Va.: 48 phanerogams, 2 grasses, and 3 ferns from southeastern U.S. (246856, exchange).
- Westbrook, J. C. (See Atomic Energy Commission)
- Western Reserve Historical Society (See Lake County Historical Society)
- Wetherald, Dorothy (See Moore, Mrs. Helen Wetherald)
- Wetmore, Dr. Alexander, Washington, D.C.: 3 bird skeletons from Southern Rhodesia (242354). (See also Health, Education, and Welfare, U.S. Department of, and Smithsonian Institution)
- Wetzel, Wallace P., Philadelphia, Pa.: (Through Early American Industries Assoc.) 19th-century chalk-line reel (247518).
- Weyandt, Claude A., Claysburg, Pa.: 2 quartz specimens from Middleville, Herkimer Co., N.Y. (243446).
- Whalin, Cornelius (See Pedersen, Helen O.)
- Wheeler, Ellen R., Fairfield, Conn.: 26 examples of dress and accessories, 1880-1900 (242445).

- Wheeler, Dr. Marshall R.**, Austin, Tex.: 86 flies from Samoa (244754).
- White, Gordon**, Alexandria, Va.: Eastman Kodak camera, Wynne's "Infallible" exposure meter and the exposure table booklet (247368).
- White, Helen M.**, Washington, D.C.: Becker stereoscope with twin viewers and 2 pairs of women's shoes, early 20th century (245096, 246576).
- White, Joe D.** (See Interior, U.S. Department of the)
- White, John**, Chicago, Ill.: Cherokee Indian metal printing type block (242882).
- White, John H., Jr.**, Washington, D.C.: Horse-car rail, ca. 1877, and a rubber stamp bearing the insignia of the National Recovery Act (243470, 244238).
- Whitehead, Lt. Donald R.**, Army Chemical Center, Md.: 77 caddis flies and 32 beetles (242973).
- White House, The**, Washington, D.C.: 4 pieces of furniture (244454, deposit).
- Whitmore, Dr. Frank C., Jr.** (See Interior, U.S. Department of the)
- Wiat, Newton E.**, Arlington, Va.: Cattle dehorner (242977).
- Wiggins, Dr. Glenn B.**, Toronto, Canada: 2 caddis flies from North America (247713, exchange).
- Wigley, Dr. Roland** (See Interior, U.S. Department of the)
- Wildung, Frank**, Shelburne, Vt.: (Through Early American Industries Assoc.) 19th-century draw knife (247-519).
- Wiley, Joseph L.**, F.P.O. San Francisco, Calif.: Soda pop bottle melted by atomic blast (246791).
- Wilimovsky, Dr. Norman J.**, Vancouver, Canada: (Through Dr. Robert R. Miller) 2 fishes, paratypes (244606, exchange).
- Wilken, D. H.**, Temple City, Calif.: 6 miscellaneous U.S. and foreign covers (242371).
- Willahan, Mr. and Mrs. L. A.**, Los Angeles, Calif.: 197 North American scarab beetles (243862).
- William Skinner & Sons**, Holyoke, Mass.: 8 flying suits, World War II (242993).
- Williams, Dr. S.** (See Michigan College of Mining and Technology)
- Williams, Staunton** (See Capewell Manufacturing Co.)
- Wills, Dr. L. J.** (See Birmingham, University of)
- Wilmot's**, Grand Rapids, Mich.: (Through Ner Wilmot Rathbun and Token and Medal Society) 2 bronze Campau centennial medals struck in 1926 in commemoration of the 100th anniversary of the city of Grand Rapids, Mich. (242367).
- Wilson, Dr. C. L.**, Hanover, N.H.: 2 phanerogams from Australia (244718).
- Wilson, Mrs. R. G.**, Miami, Fla.: 2 cultivated ferns (243400, 243504).
- Wilson, R. W.** (See Potomac Electric Power Company)
- Wilson, Stan**, Cronulla, N.S.W., Australia: Fetal seal from Wilkes, Antarctica (245196).
- Wilson, Dr. Thomas K.** (See Cincinnati, University of)
- Wiman, Virginia**, Hillcrest Heights, Md.: 1,407 miscellaneous U.S. and foreign covers, mint postage stamps, souvenir sheets, ceremony programs, and postal stationery (244391, 247575, 247657).
- Winford, Mrs. T. E.**, Dallas, Tex.: 2 fresh-water snails from Manitoba (243-083).
- Wingard, Franklin**, Rock Island, Ill.: 736 radio instruments (241556).
- Winger, John D.**, Louisville, Ky.: 52 political campaign items (244226).
- Winthor, Mildred** (See Miller, Mrs. George)
- Winthrop, Mrs. Brenda L.**, Scarsdale, N.Y.: Winthrop family correspondence, section II, consisting of philatelic covers of the prestamp period, 1795-1849 (239499).
- Wisconsin, University of**, Madison, Wis.: 113 phanerogams and grasses, mostly from Mexico and the U.S. (242-256, 242909, 243071, 243751, 245244); 23 miscellaneous phanerogams (247271 gift-exchange); (through Prof. Richard N. Dexter) 61 tuning forks (248007); (through Dr. John W. Thomson) 251 lichens from Alaska and Europe (242-254, 245949, exchanges). *School of*

Pharmacy: (Through Prof. Glenn Sonnedecker) 180 bottles of assorted chemical dyes (242799).

Wiseman, Dr. J. D. H. (See Great Britain, Government of)

Wiseman, Dr. J. S. (See Texas State Department of Health Laboratories)

Witt, William L., Washington, D.C.: Crayfish (245330); collection of amphibians and reptiles mostly from Virginia collected by donor (247595).

Wolff, Nigel O'C. (See Maryland Academy of Sciences)

Woloso, Peter, Horseheads, N.Y.: (Through Early American Industries Assoc.) 19th-century hand saw (247-528).

Wood, Dr. D. M., Hamilton, Ontario, Canada: 117 black flies from Canada (243421, exchange).

Wood, Jennings (See Library of Congress)

Wood, Dr. Richard D., Kingston, R.I.: 46 algae from Fiji, New Caledonia, and Samoa (247143, exchange).

Wood, Dr. Stephen L., Provo, Utah: 68 bark beetles from North, Central, and South America (245198, exchange).

Woodman, R., Jr., Orono, Maine: Spodumene from Georgetown, Maine (247239, exchange).

Woods, Mrs. Charles E., Alexandria, Va.: Child's high chair, a candlestick, and 2 lamps (247960).

Woods, Loren P. (See Chicago Natural History Museum)

Woods Hole Oceanographic Institution, Woods Hole, Mass.: (Through Dr. Richard H. Backus) 3 lobsters (245-935); (through Dr. George D. Grice) 239 copepods including types, 692 amphipods, and a plankton (239851, 242756, 244780, 247410). (See also Massachusetts Institute of Technology)

Woodson, Dr. Robert E., Jr. (See Missouri Botanical Garden)

Woodward, Douglas (See Maryland Archaeological Society)

Woodward, Dr. T. E., St. Lucia, Brisbane, Australia: Plant bug from Australia (243553).

Woodward Governor Co., Rockford, Ill.: (Through George W. Taylor)

Woodward hydraulic turbine governor (243909).

Woolcott, Dr. William S., Richmond, Va.: 148 crayfishes (242826).

Worcester Polytechnic Institute, Worcester, Mass.: (Through Prof. Robert J. Hall) 46 Whitworth plug and ring gages (245632).

Workman, William H., Chattanooga, Tenn.: 300 fossils from the Silurian of Tennessee (244475).

Wormser, Charles M., New York, N.Y.: 335 U.S. and foreign commemorative and historical medals and tokens (245599); 526 silver and copper coins, worldwide, 13th-20th centuries (245-787).

Wray, Nancy, Washington, D.C.: McKinley soap doll (245102).

Wright, Mrs. Daniel E., Winchester, Va.: German infantry sergeant's service blouse of World War II and a pair of U.S. Army woman's wool trousers, 1943-44 (244050).

Wrigley, Philip K., Chicago, Ill.: 13 miscellaneous Naval Aviation uniforms worn by donor during World War I (247959).

Wuerz, Charles H., Jr., Riverside, Calif.: 5 used airmail postage stamps of Thailand (247379).

Wycoff, Maj. Dale E. (See Defense, U.S. Department of)

Wyoming, University of, Laramie, Wyo.: 117 grasses, mostly from Mexico (245527).

Yaffe, Paul, Baltimore, Md.: Quartz and 2 tourmalines from Arkansas and Mexico and fluorite with quartz from Blackdene Mine, Durham, England (242536, 246817, exchanges).

Yale University, New Haven, Conn.: 21 phanerogams (242694); grass, isotype (246675, exchange); (through Prof. Vernon W. Hughes) Kapitza-type helium liquifier (246373); (through Robert Oaks, Jr.) 13 fossil crabs from the Pleistocene of Virginia (246887); (through Dr. John Reeder) 3 ferns from Argentina (242578). *Department of Zoology:* (Through Dr. L. M. Passano) 3 crabs (230151). *Peabody Museum of Natural History:* (Through Dr. Donald

- F. Squires) 62 corals (239853). *School of Forestry*: (Through Dr. Graeme P. Berlyn) 4 wood specimens from the Philippines (246503, exchange).
- Yale and Towne Manufacturing Co., Inc.** New York, N.Y.: (Through Paul B. Ingham) bank vault and cross section model of a Yale cylinder lock, Chubb's patent lock, and lock with key (243028, 244235, 246146).
- Yamori, Issei**, Nagoya, Japan: Glazed stoneware plate with bamboo woven rim from Japan (241696, exchange).
- Yanagida, Dr. Juichi** (See Kyushu University)
- Yater, Wallace**, Washington, D.C.: Magic lantern slide with rotating color disc, 2 contact-printing frames, and a graduated plate holder (243353); spectrometer, Thomson-Houston current indicators, tele-typewriters, and galvanometers (243599).
- Yeatman, Dr. Harry C.**, Sewanee, Tenn.: 50 copepods (241931).
- Yedlin, Neal**, New Haven, Conn.: Phillipsite from Thomaston, Conn. (244735).
- Yerger, Dr. Ralph W.** (See Florida State University)
- Yochelson, Dr. Ellis L.** (See Interior, U.S. Department of the)
- Yokel, Bernard J.** (See Miami, University of)
- Yoshimoto, Dr. Carl M.**, Honolulu, Hawaii: 3 cynipid-wasps from Hawaii (243457, exchange).
- Yoshimura, Isao**, Kochi, Japan: 30 lichens from Japan (243877, exchange).
- Young, Edward A.** (See Thistle Metal Spinning Company)
- Young, Mrs. Gordon Russell**, Washington, D.C.: Taffeta dress worn to the White House in 1935 (244970).
- Young, Mrs. Gordon Russell, and Price, Mrs. Stewart**, Washington, D.C.: White organdy dress of 1878, brooch worn with it, and a pair of red-satin shoes of 1894 (244971).
- Young, Helen May**, Covington, Ky.: 13 miscellaneous items relating to Helen May Butler, the first woman bandleader in the U.S. (242392).
- Young, Heum Kang** (See Korea, Bank of)
- Young, Jack R.**, El Paso, Tex.: 5 minerals from Mexico (247565).
- Young, Jake M.**, Bellefontaine, Ohio: Sample from first concrete street laid in U.S. (245130).
- Young, Valma**, South Berwick, Maine: Phanerogam from New England (242959).
- Yule, Mrs. Josephine** (See Galli, Mr. and Mrs. Angelo)
- Yunker, Dr. Conrad E.**, Hamilton, Mont.: 22 millipedes from the Canal Zone (243451). (See also Health, Education, and Welfare, U.S. Department of)
- Zahradnik, Dr. Jiri**, Prague, Czechoslovakia: 4 white flies from Europe (243570).
- Zander, Randolph**, Alexandria, Va.: 13 bronze counters and jetons (242262).
- Zeiss Ikon, Inc.**, Stuttgart, West Germany: (Through Don Karshan) Contax I, Contaflex, and Contarex cameras and accessories (246578).
- Zeller, Mrs. Doris E. Nodine**, Lawrence, Kans.: 52 slides of Foraminifera, including 9 holotypes and 6 paratypes, from the Upper Mississippian of southern Illinois and western Kentucky (243337).
- Zenith Radio Corp.**, Chicago, Ill.: (Through Robert A. Kubicek) 8 dummy transistor hearing aids and a live hearing aid (244008).
- Zetek, Dr. James** (deceased): 180 fresh-water snails from Panama (215499).
- Ziesenhenné, Capt. Fred C.** (See Southern California, University of)
- Zimmerman, Mrs. Frank S.**, Apache Junction, Ariz.: 5 minerals from Ritter Hot Springs, Oreg. (243678).
- Zimmerman, John D., Jr.**, Washington, D.C.: 2 sheets of music from World War I (245959).
- Zoltai, Dr. Tibor** (See Minnesota, University of)
- Zoölogisch Museum**, Amsterdam, Netherlands: (Through Dr. J. H. Stock) 3 copepods, including paratypes

(244449); (through Dr. K. H. Voous) bird skin (247628, exchange).

Zoologisches Institut, Kiel, Western Germany: (Through Dr. Hermann Remmert) 13 midges from Germany (247300).

Zoologisk Museum, Oslo, Norway: (Through Dr. T. Soot-Ryen) 52 marine

mollusks from Madagascar, Peru, and the Seychelles (242596, exchange).

Zumt, Dr. F., Johannesburg, South Africa: 5 blow and bot flies from Africa (243573, exchange).

zur Strassen, Dr. Richard, Frankfurt, Germany: 33 thrips from Austria and Germany (240941, 246474, exchanges).

Appendix

A BUILDING FOR A MUSEUM OF HISTORY AND TECHNOLOGY FOR THE SMITHSONIAN INSTITUTION

The Joint Congressional Committee on Construction of a Building for a Museum of History and Technology for the Smithsonian Institution submits this report on the progress of the planning and construction of the building pursuant to section 4 of Public Law 106, 84th Congress (69 Stat. 189).

The provisions of the act of June 28, 1955, authorized the construction of a building for a Museum of History and Technology, established the joint congressional committee to advise the Board of Regents of the Smithsonian Institution during the planning and construction of the building, and required that the joint congressional committee submit a report annually on the progress of construction.

On May 19, 1963, the Smithsonian Institution took occupancy of the first completed space in the Museum of History and Technology Building. In this space, accepted from the contractor by the General Services Administration and offered to the Smithsonian Institution, Smithsonian personnel are now installing exhibits. The contract provides for partial occupancy in advance of completion, without prejudice to the requirement that all elements of the building be completed as specified in the contract. This procedure was planned from the start in order to minimize the time between completion of the building and its opening to the public.

It is expected that the exhibits will be installed in a sufficient number of exhibition halls to permit the building to be dedicated and opened to the public early in 1964. The date and arrangements for this opening will be determined by the Chancellor of the Smithsonian Institution, the chairman of the joint congressional committee, and the Secretary of the Smithsonian Institution.

The exhibits in this impressive museum building will place before an estimated 5 million visitors each year from all the States in the American Union an inspiring exposition depicting the development of the way of life from early times down to the present day, commemorating our national heritage.

When the exhibits are completely installed, the visitor entering the first floor from Constitution Avenue will find exhibits showing significant advances made in science, engineering, and manufactures. Famous inventions and patent models, such as Slater's spinning frame, Whitney's cotton gin, Henry's electromagnet, Morse's telegraph, Howe's sewing machine, Duryea's automobile, Stevens' steamboat engine, Shole's typewriter, Edison's electric lamp and generator, and Thomson's electric welder, will be shown with many other original examples of the inventions and scientific discoveries made up to the present.

Entering on the second floor directly on the level of the Mall, the visitor will see in the central hall the original Star-Spangled Banner. This great flag, originally measuring 42 feet by 30 feet, inspired Francis Scott Key to compose the words of our national anthem. He saw it in the "rockets' red glare" over Fort McHenry during the defense of Baltimore in the War of 1812. The flag is recognized by many to be the most important historical museum object in the United States.

Nearby will be a number of halls offering chronological displays of the homes, weapons, tools, dress, and activities of our forebears. Treasures, such as Washington's sword and field equipment, the desk at which Jefferson drafted the Declaration of Independence, a printing press at which Franklin worked, and the uniform coat worn by Jackson at the Battle of New Orleans, will be shown in proper context with tradesmen's tools, the products of manufactures and farm industries, vehicles, and engineering structures to trace the evolution of our history. In other halls complete rooms will show furnishings and the decorative arts of many periods. Original gowns worn by all of the First Ladies will be shown in settings constructed in part of original paneling and furnished with original furniture from the White House rooms they represent.

The Armed Forces exhibits on the floor above will display original weapons, uniforms, flags, vehicles, warship models, dioramas, prints, paintings, and maps to trace the chronological development of our Army, Navy, and Air Force and to show their contributions to the defense and development of the country in war and peace. Elsewhere on this floor will be exhibits of the graphic arts, including fine prints, printing presses and composing machines, early cameras and photographs, musical instruments, and ceramics and glass. The national collection of postage stamps will be combined with exhibits on the history of the postal service and the production of stamps. The Smithsonian's outstanding collection of coins and examples of medallion art will be shown with an original display of the history of money. Over 50 exhibition halls eventually will be filled with collections of important objects, many of which have of necessity been in storage for years at the Smithsonian Institution.

On the floors above will be located the extensive study reference collections of some 800,000 objects which will for the first time be conveniently available to students, historians, and members of the public with special interests. Adjacent to these collections will be the workrooms of expert staff members engaged in documentation and research related to these stored objects. Study of this sort is necessary in helping scholars who are writing American history and in assisting the public in the identification of objects of interest and value from the past. In this way Americans can come to know the true story of the general history and the development of technology in this country.

PROGRESS OF CONSTRUCTION SINCE JULY 1961

During the past year the building was brought to 99 percent of completion. Exterior marble facing, cornices, and parapets; granite terrace paving; windows and exterior doors; lighting standards throughout the grounds; sidewalks around the building; and flagpoles were completed. The construction fence has been removed and the grounds have been graded and seeded.

Most interior areas of the building are nearly completed. Partitions and ceilings have been erected, lathed, and plastered; floors were laid and finished; built-in cases were completed; grid ceilings hung; ceiling panels, lighting fixtures, and diffusers installed; and machinery and fan rooms completed. Escalators and elevators have been installed; and decorative wall finishes applied; and walls and ceilings painted throughout.

Work is progressing in the few areas still incomplete, including the Flag Hall and the cafeteria.

Work on additional items as approved by the joint committee at its meeting on June 15, 1962 (see S. Rept. 1702, 87th Cong., 2d sess., July 10, 1962), is progressing. The full cost of these items is covered by the initial appropriation for the building.

New exhibits arrangements of the collections have been prepared for most of the new halls. These have been planned to include frequent arrangements in which free-standing objects will be lighted with eye-catching effect to assist the viewer in identifying significant exhibits. Installation is proceeding in the limited part of the building finished at this time and when the building is completed, installation will proceed concurrently in other halls. After the dedication of the building, it will remain open to permit the visiting public to see the finished halls while installation continues in others. As considerable interest has been expressed in what the individual halls will contain when completed, the following amplification of the above summary is provided.

1. FARM MACHINERY

The visitor entering the first floor of the Museum of History and Technology will find the Hall of Farm Machinery an excellent place to begin his tour. The basic technology of farming will be illustrated by a selection of the tools and machines that have been developed over many centuries. Hand sickles, cradle scythes, sieves, and winnowing fans will be contrasted with the mechanical reapers and threshers. The theme of the exhibits will be the mechanization of farming which took place largely in the 19th century and has distinguished American farming for more than 100 years. A large horse-drawn harvester-thresher of 1886 which accomplished all of the harvesting tasks while moving through the fields will represent an early peak in mechanization. A series of the plows used in America from the middle of the 18th century will illustrate the changes made in the shape of the plow and the transition from iron-sheathed wood plows to those of steel. One exhibit will show how Thomas Jefferson applied his scientific mind and practical knowledge to develop a more efficient plow and then published a method by which any farmer of his time could reproduce it with the tools commonly owned on the farm. Colorful self-propelled steam engines which supplied belted power to the old threshers and other farm machines will be shown with the gasoline and diesel tractors which pull and power large farm equipment.

2. LUMBERING AND WOOD INDUSTRIES

The Forest Products Hall adjoining the Farm Machinery Hall will exhibit the tools of lumbering and the manufacturing methods of forest-based industries. An animated map will indicate the forest

resources of the United States at various periods of time and illustrate how forests now are being replanted and harvested as a long-term crop. A typical exhibit will illustrate the evolution of the American ax with a heavy poll from the European poll-less ax in use for many centuries. A full-size element from a waterpowered sawmill which was in use in the late 18th and early 19th centuries will be compared with models of a steam sawmill and a modern gang sawmill. The methods and the equipment of the large wood users, such as plywood manufactures and the wood pulp industries, will be shown. The history of the use of wood in construction will be brought up to date with models of house framing and heavy timber structures. An exhibit on wooden ship construction and another on "naval stores," such as pine tar, turpentine, masts, spars, ship timbers, and planking will introduce the visitor to the exhibits of watercraft in the adjoining hall.

3. WATERCRAFT

It is appropriate that the visitor will pass from the exhibits of agriculture and forest products to the Watercraft Hall. The early eminence of American shipbuilding was based in part upon the country's timber resources. The movement of farm crops by water was of great early importance and continues to be significant today. The Watercraft Hall will trace the development of American merchant vessels from colonial times. The Smithsonian's unparalleled series of models will be the basis of the exhibits. In addition to the accurate, authentic, and mostly contemporary scale models; prints, paintings, and occasional original elements of watercraft will add interest to the exhibits. These collections which are known to marine historians and architects as a prime source of historical and technical information will be adequately displayed for the first time. They will trace the evolution of sail, steam, and motor vessels of all kinds in exhibits of fishing vessels, fishing boats, seagoing cargo and passenger ships, river and lakes vessels, vessels of all of our coasts, and local watercraft from all maritime areas of the United States. Fast topsail schooners, famous clipper ships, paddle wheel steamboats of the Mississippi and Long Island Sound, and Great Lakes and gulf coast types, will be represented among many others in exhibits which will relate the development of their design to the requirements of the waters and the trades in which they sailed.

4. ROAD VEHICLES

The group of halls exhibiting the technology of transportation continues with the Hall of Automobiles, Carriages, and Coaches. In this hall the many American contributions to the invention and development of vehicles will be emphasized. Three fine examples of early handcrafted vehicles will be seen: a chaise of 1770, a two-wheel gig which traveled from the Eastern Shore of Maryland to New England just before the Revolutionary War, and a family coach of 1810. The visitor will see a stagecoach that was built in 1848 in the shops of Lewis Downing at Concord, N.H. This coach is believed to be the oldest of the hundreds of "Concord" coaches supplied to stagelines in all parts of the country for local transport beyond the lines of the early railroads. A fine example of carriage building of the same period will be seen in

the Lawrence family coach built by Thomas Goddard of Boston in 1851. A city omnibus and a fine "piano box" buggy are included. A detailed collection of high wheel and early "safety" bicycles will be exhibited with an account of the importance of the bicycle in fostering the demand for personal transportation, in promoting good roads, and in developing inventors and manufacturers who later were the pioneers in the automobile and aircraft industries. The Smithsonian's small, but fine, collection of automobiles will illustrate the rapid evolution of automobile design and manufacture from the pioneer American vehicles of the 1890's. A mile-a-minute racer of 1902 and the original Vanderbilt Cup will emphasize the importance of international contests in developing the engineering design of early automobiles. An original heavy truck of 1930 with a number of truck models will illustrate the growth of the American trucking industry which, today, operates over 12 million vehicles.

5. RAILROADS

The period of steam railroad building and operation in the United States will be traced in exhibits of full-size locomotives and accurate, documented, scale models. The locomotive "Sturbridge Lion," brought from Sturbridge, England, in 1829 to be the first steam locomotive to run on an American railroad built for commercial use, will be exhibited with the wood-burning, passenger-service locomotive the "Pioneer," built in 1851, and the 188-ton "Number 1401," a Pacific-type locomotive of 1926. Original elements from the early diesel locomotives and a section of a diesel-electric locomotive power unit will be shown. A model of a locomotive building plant of the mid-19th century will illustrate the early practice of the manufacturing techniques of component fabrication and assembly. An original full-size cable car from Seattle will be exhibited on a section of rail and cable conduit illustrating the method of operation of the cable car system. Other street railway developments will be shown by models and illustrations, including rapid transit systems, such as the elevated and the monorail.

6. BRIDGES AND TUNNELS

Adjoining the Railroad Hall is the Hall of Civil Engineering which will feature exhibits illustrating the evolution of bridge and tunnel building. Among the engineering marvels of all ages are the structures built to carry highways and, later, railroads over or under rivers and bays. The exhibits of bridge models will explain more graphically than any other collections in the Smithsonian the interrelation between the progress made in new materials of construction and the advances in design which the new materials made possible. Stone and wood construction gave way to cast-iron, wrought iron, and steel, as spans became longer and design more advanced. Exhibits will include structural elements and show the techniques of erecting arch, cantilever, truss, and suspension bridges. A number of American bridge builders will be represented by original contemporary models collected from their design offices and from the engineering departments of universities. The Smithsonian's excellent collections of contemporary engineering prints will add graphically to the exhibits.

The methods of tunneling in rock and soft ground will be explained with sectionalized models of important tunnels. Full-scale examples of the timbering systems used to support the workings of soft-ground tunnels in the 19th century will frame exhibits of original tunneling tools and equipment.

7. POWER MACHINERY

In the Hall of Heavy Machinery, original large engines will illustrate the progress made in substituting great power devices for the muscles of men and animals. Steam boilers, engines, and turbines will show how the energy of fuels, such as wood, coal, and oil, is converted and applied to useful work through the agency of steam. Water wheels, hydraulic turbines, steam engines, and steam turbines will memorialize and explain the work of America's great inventors in these fields: Evans, Francis, Stevens, Corliss, Curtiss, and many others. Exhibits of original patent models of internal combustion engines will include those of Drake, Brayton, and Otto. Diesel engines and gas turbines will illustrate more recent developments. Animated models and diagrams will explain the cycles through which these machines operate to convert the energy of water, coal, or petroleum to mechanical work. Many of the original machines will be shown in motion and others will start at the push of a button. Two related and primary uses of power are illustrated in exhibits of machines for pumping and refrigeration. Early engine-driven compressors and their condensers will illustrate the principle of the refrigeration cycle. A hydraulic turbine turned by a stream of water will drive an oil pump used to lubricate the huge machines of a hydroelectric plant. An early steam-electric generator unit will guide the visitor to the Hall of Electricity.

8. ELECTRICITY

The Hall of Electricity will exhibit original apparatus to trace the progress of the science and the technology of electricity. Joseph Henry, first Secretary of the Smithsonian, was an important contributor to both. He was the codiscoverer of the induced electrical current, the discoverer of self-induction and a pioneer in applying the principles of the electromagnet. Instruments left by Henry, apparatus used by Priestly in the 18th century, Henry Rowland's apparatus of the 19th century, and the original tube with which the Nobel Prize winners Davison and Germer demonstrated the "optical" character of electron beams, will illustrate the scientists' progress in understanding the fundamental nature of electricity. The development of electrical machines and instruments will be shown with original dynamos of Farmer, Wallace, Siemens, and others. Two early dynamos by Edison and Westinghouse, contemporary with the contest between direct current and alternating current proponents late in the 19th century, will run continuously. The application of the technology of the electromagnet in wired communication will be illustrated with Morse's original telegraph instruments of 1837 and the patent model of Bell's telephone. The technology of electromagnetic radiation will be traced from an operating reproduction of Hertz' apparatus of 1886-88, through a comprehensive display of

radio equipment. The original standby duplicate of Telstar will indicate the pace of present-day developments.

9. TOOLS

After the visitor has seen the evolution of power devices and their application to land and water transportation, he will pass to the Hall of Tools. Here he will see how machine tools, which developed from the ideas embodied in ancient hand tools, employ the tireless energy of motors and engines to shape materials, increase productivity, and contribute to a high standard of living. The long march toward automation from the 16th century to the present will be described in exhibits including Thomas Blanchard's gunstock lathe of 1820 and an operating model of an automobile assembly line. Exhibits of actual machine tools will illustrate the basic machining operations of drilling, boring, turning, planing, milling, and grinding. A visitor-operated film will show these operations in color with sound. The free-standing machine tools which explain the development will be operated to demonstrate their functions.

A reconstructed pre-Civil War machine shop will be equipped with the oldest and best of the museum's collection of machine tools. These also will be operated.

The extensive collections of antique hand tools will be exhibited in displays representing such ancient trades as the blacksmith, wheelwright, cooper, and pump maker. A large exhibit on the history of precision measuring devices will include original sets of standards and the apparatus for optical measurements.

10. LIGHT MACHINERY

The Hall of Light Machinery will exhibit the evolution of clocks and watches, the typewriter, the phonograph, and locks. Exhibits of these objects will illustrate how their development derived from the skills and techniques of clock and instrument makers. The introduction to exhibits of sundials and other early timekeepers will be a globe demonstrating the rotation of the earth as the original timekeeper. Sandglasses, water clocks, and time lamps will illustrate the progress made before the clock. The development and refinement of mechanical clocks will be traced through the work of Galileo, Huygens, Robert Hooke, George Graham, David Rittenhouse, Eli Terry, and others. The first chronometer made in America will be shown in the original shop in which it was made, with the tools used in chronometer making. The development of the factory system and the introduction of automation will be illustrated in exhibits of the clocks and watches produced by these systems. The central exhibit of the hall will be a clock tower with civil, astronomical, and automaton dials actuated by an American tower clock of 1796. Other exhibits in the Light Machinery Hall will include machines derived from the skills and techniques developed by clock and instrument makers. They will trace the development of the phonograph from Thomas Edison's original invention through the work of Alexander Graham Bell's Volta Laboratory and of later workers. This will include original apparatus presented by Bell who was a Regent of the Smithsonian. Exhibits on the development of the typewriter will trace the history of the development of writing machines with sufficient speed and

legibility to be useful in correspondence and record keeping. Original machines and patent models include those of Sholes and of many inventors before and after him. Locks from Egyptian and Greek times to the present will trace the constant improvement in security utilizing new materials as they develop as well as increasingly subtle engineering concepts. Here also patent models of most of the significant inventions will be shown. Throughout the area the exhibits will emphasize the artistic expression of the craftsmen.

11. PHYSICS

Exhibits in the Hall of Physics will illustrate the story of the development of the sciences of physics, astronomy, and mathematics. It will lead the visitor chronologically to the beginning of nuclear physics and to the nearby Hall of Nuclear Energy. The exhibits in the Hall of Physics start with a section on early science and continue its evolution through the Greek period to the scientific revolution of the 17th century. Early science will be explained in exhibits on the Egyptian land surveyors, the oracle bones used by the Chinese for divination, early mapmaking, the mathematical clay tablets of the Babylonians, and primitive devices for astronomical observation. An operating model of the famous water clock of Ctesibius will be included in this exhibit. There will be exhibits of Islamic and medieval science, including full-scale replicas of the armillary sphere and quadrant designed and used by Tycho Brahe. The finest examples of antique scientific instruments will include astrolabes, orreries, and gunnery and surveying instruments. The scientific revolution and its effects will be demonstrated in exhibits showing 17th century advances in the sciences of astronomy, mechanics, optics, and pneumatics. Original apparatus used by important physicists will be combined with graphic explanations and pushbutton-operated demonstrations. A reconstruction of Benjamin Pike's 19th century New York instrument shop will display original apparatus used for teaching the sciences in American colleges in the late 18th and early 19th centuries. A scene of the survey made of the District of Columbia in 1791 by Andrew Ellicott will include original surveying and astronomical instruments owned by Ellicott and used by him on this survey. Exhibits of original apparatus relating to calculation in science, applied physics, optics, astronomy, and classical physics at the end of the 19th century will introduce the visitor to the Hall of Nuclear Energy, nearby.

12. NUCLEAR ENERGY

Coming to the Hall of Nuclear Energy from the Hall of Physics, the visitor will be astonished to learn how recent are the discoveries that support today's concept of the structure of matter. Exhibits will show the advances made in the closing years of the 1890's in the understanding of electromagnetic waves, radioactivity, X-rays and the electron. The Hall of Nuclear Energy will present in detail the story of the major experiments which contributed to this concept. The Geissler tube, a fundamental tool in this research in the discoveries of the electron, the nucleus, the neutron, and the proton, will be demonstrated alongside replicas of some of the original apparatus used. The observation of isotopes and the final realization of the practicability of "splitting

the atom" will be explained in exhibits of the work of Rutherford, Fermi, and others. The first controlled nuclear fission by Fermi, achieved in 1942, will be commemorated by a replica of his first atomic pile built at Chicago University, reproduced with materials from the original. The hall will show the main lines of modern atomic research: the development of the first Van de Graaff accelerator (the original of which will be installed) leading to Lawrence's cyclotron and the giant synchrocyclotrons. The creation of new elements by means of these accelerators will be explained. Tools and instruments will illustrate the adaptation of our knowledge of isotopes to practical, day-to-day service in industry and medicine. Models of reactors will show the way in which the power inherent in nuclear reactions has been controlled for the service of mankind. Modern developments, such as the direct production of electricity from nuclear energy, will be shown with actual examples of the equipment. The ways in which the physicist can observe atomic phenomena will be shown in exhibits of his major tools. Progress towards applying the energy of thermo-nuclear fusion to peaceful applications will be illustrated by actual equipment used in historic experiments.

13. CHEMISTRY

In the Hall of Chemistry, as in the adjoining Hall of Physics, the visitor will be able to follow further the scientists' historical quest for knowledge. Exhibits will describe the tools and laboratories of the medieval alchemists, the work of the chemists who followed them, and the chemical revolution brought about by Lavoiser and others late in the 18th century. The original apparatus and instruments employed by the early experimenters will be augmented by reproductions of the laboratories in which they worked. These will include the laboratory of Joseph Priestly about 1790, the lecture room of Robert Hare about 1830, and the laboratory of Ira Remsen of 1890. Other exhibits will show the progress made in analytical apparatus and the instrumentations of the laboratory. Working models and original early products of chemical plants will illustrate the contributions of the chemical engineer and his predecessors.

14. TEXTILE MACHINERY AND FIBERS

The Textile Machinery and Fiber Hall will show the evolution of man's efforts to make materials of plant and animal fibers from pre-historic times to the present. It will supplement well the First Ladies Hall and the Hall of Costume because it will demonstrate how dress fabrics themselves and many other textiles are created. It will also demonstrate how the techniques of textile production have changed through the years. The visitor will begin by looking at spindles recovered by archeologists from the sites of early human habitations. He then will see the development of more and more effective machinery for the manufacture of textiles. Some notable "firsts" will be shown, for example, the actual model made by Whitney himself of the cotton gin and the first American spinning frame constructed by Slater in Rhode Island in the 18th century. Visitors will see a most rare and beautiful dress made years ago entirely of silk from silkworms grown in American—the silk fibers processed in

America and then hand sewn in America. Modern synthetic metallic and glass fibers and a wide variety of the textiles and textile machines that have made possible the modern multiplicity of industrial and decorative fabrics will be included in the displays. One of the notable exhibits of this hall is a Jacquard loom more than a century and a half old which has been put in perfect working order. This wonderful punch-card device weaves tapestries and patterned brocades without requiring a laborious setting by human hands. In this textile hall there will be many typical forms of textiles arranged so that each visitor may touch and feel them. Experts in textiles know that only by feeling fabrics can the visitor actually gain a satisfactory knowledge of different types of materials.

15. TEXTILE PROCESSING

Adjacent to the exhibits just described, another area, the Hall of Textile Processing, will display textiles used in human clothing, household decoration, and many industrial functions. This hall will show the history of sewing machines and other devices used in processing the textiles of civilization. Here one will also see illustrated the different types of dyeing and printing that have been used through the years for the embellishment of textiles and collections of great textile types such as lace and embroidery. No one who thinks of our modern world can fail to realize the role that the sewing machines of factory and home have played in the emancipation of women from monotonous toil. The collection of these interesting and effective machines at the Smithsonian is one of the best in the world. The thoughtful visitor who studies them learns not only a mechanical but also a sociological lesson of importance.

16. MEDICINE AND DENTISTRY

Exhibits in the Hall of Medical History will display the development of surgical technique from ancient to modern times. Early trephining and other surgical instruments will be combined with a diorama of an 1805 surgical operation performed by Dr. Philip Syng Physick in the circular room amphitheater of the Pennsylvania Hospital. Diagnostic instruments such as stethoscopes, endoscopes, speculums, and blood-pressure measuring devices will be exhibited with a series of microscopes illustrating the development of these instruments. Exhibits of original galvanometers and other apparatus will trace the development of cardiography and the early use of anesthesia will be shown by apparatus of the American pioneers, William Morton and his contemporary, Crawford W. Long. The development of the devices of modern medicine and surgery will be shown by exhibits of the iron lung, and X-ray tubes, including one tube used by W. C. Roentgen. Medicine chests and surgical kits of different periods will be graphic summaries of the state of medical sciences in the times they represent. Exhibits on the development of dentistry and dental surgery with examples of drilling machines, tooth filling, and extracting tools will be displayed. In addition, dental offices of famous dentists, such as G. V. Black and the father of American orthodontia, Dr. Edward H. Angle, will be reconstructed with their original equipment and instruments.

17. PHARMACY

Exhibits in the Pharmacy Hall will feature the reconstruction of two shops. An 18th century European apotheka, originally from Germany, will be shown complete with a very elegant collection of drug jars, decorated medicinal bottles, wooden containers, balances, mortars and pestles, nested weights, and other tools, portraits, franchises, and documents pertaining to the apothecary art of its time and place. A late 19th century American drugstore will have its shelves filled with patent medicines, cosmetics, chemicals, and drug containers of various sizes and shapes. Its window will be complete with handsome colored show globes. The development of antibiotics will be represented with exhibits of the early utensils and machines used in the manufacture of these "miracle drugs," including a mold and apparatus received from the discoverer of penicillin, Sir Alexander Fleming (1881-1955). The preparation and manufacturing of drugs will be illustrated with exhibits of original machines such as tablet and capsule machines and drug mills and percolators. The Smithsonian's collection of *materia medica*, thought to be the largest, will be shown in an exhibit on the "A to Z" of crude drugs and their origins. A typical exhibit will illustrate the role of cinchona and antimalaria drugs in the fight against disease. A comprehensive exhibit of weights and balances will be placed adjacent to the Hall of Chemistry. It will include examples of ancient and modern weights and balances used in many countries of the world.

18. HEALTH

Years ago, upon representations of national medical associations, the Smithsonian established a Hall of Health. In 1957, this hall was renovated and constructed to be moved intact to the Museum of History and Technology when the new space there has been completed. This modern Health Hall will present the basic anatomical and physiological processes of human beings as they are known to modern science. The hall will show something of the mechanisms by means of which electronics and other technologies assist the physician in measuring and recording the human heart beat, blood pressure, respiration, visual and auditory acuity, and the like. Here the visitor will watch his own heart beat on a cathode-ray tube by holding a receiver on his chest. In this hall will be located a fascinating transparent human figure which, by a series of lights and a concomitant electronically reproduced lecture, will show in a vivid and accurate way the principal organ systems of the human frame and how they work.

19. MANUFACTURES

The machine fabrication of articles of everyday use began early in our history, and the large-scale production of nails, screws, needles, buttons, wire, cooking utensils, and many other common articles, which could be marketed cheaply and widely, has always been a characteristic of the American economy. Exhibits in the Hall of General Manufactures will show the evolution of special purpose manufacturing machines. One series of original machines will trace the evolution of the manufacture of the common wood screw. A

pioneer eyelet machine of 1865 will introduce another series showing the evolution of transfer presses capable of precision forming of metal parts. The contrast between these machines and some early single-action stamp presses will emphasize the great gains in productivity which followed the mechanization of basic steps in machining, such as mechanically feeding the metal blanks to the machine and automatically controlling the cutting and forming tools. An original slide fastener made by the inventor, Whitcomb Judson, in 1896 is part of an exhibit illustrating how the general introduction of this useful device waited upon the development of machines capable of manufacturing it. How this was achieved will be demonstrated by tracing the changes in techniques of production of all kinds of fasteners. An early peddler's wagon filled with pots, pans, lanterns, notions, and tableware will recall the simple art of the tinsmith and exemplify the volume and variety of manufactured goods long available in the United States.

20. PETROLEUM

The importance of energy resources will be illustrated in the Smithsonian in exhibits of power machinery, electric power, coal mining, and nuclear energy. Nowhere is the reliance upon fuel energy better exemplified than in the Hall of Petroleum. The exhibits will illustrate the history of the advances made in the technology of prospecting, well drilling, and the refining of petroleum. The methods used by the geologist and geophysicist to locate and prove the Nation's oil reserves, in pace with the ever-increasing demand, will be illustrated by a wide variety of survey equipment, including many historic items evolved to meet the special needs of the petroleum industry. The development of drilling methods, from the time of Drake's original discovery in 1859, will be shown by models and actual equipment. The development and application of techniques required to stimulate and maintain the flow of crude oil from wells will be shown. The history of oil refining methods will illustrate the progress from the kerosene era to modern high octane gas. The original experimental still of Burton and Humphries which led to the first large-scale thermal cracking of crude petroleum and a model of a polymerization plant, one of the earliest processes for increasing the octane rating of gasoline, will be included. The significance of petroleum as a source of raw materials for synthetics of all kinds will also be shown by a model of a modern petrochemical plant. The history of production and distribution will be summarized in a large map of the United States.

21. COAL

Coal is the source of vast amounts of the energy required to maintain the industrial strength of the United States. In the Coal Hall, the exhibits will begin with the origins of our great resources of coal. Actual fossils of the plants from which coal was formed and a dinosaur track from a coalbed in Utah will dramatize the geologic history of coal formations. Examples of the many varieties of brown, bituminous, and anthracite coals will be shown with explanations of how they differ in origin and use. Tools, machines, and models will illustrate the evolution of mining methods from pick and shovel to modern coal cutting and loading machines. The development of mine safety

measures will be traced with exhibits of timbering, ventilating, safety lamps, gas detectors, and self-rescue equipment. Models and schematic drawings will show the recent progress being made in mining methods including the system of mining by television controlled machines directed from above the ground. Other exhibits will explain the research and experimentation undertaken to convert coal to gaseous or liquid fuels while it is in the ground.

22. IRON AND STEEL

In many halls throughout the museum, the visitor will see repeated the transition from technologies based on wood, in which machine frames, heavy equipment, and even gearing were made of wood, to the engineering machines and structures in which iron and steel predominate. The Hall of Iron and Steel will illustrate the development of methods for the production and fabrication of these basic commodities. The exhibits will begin with the methods used at the Saugus, Mass., iron works of 1644 and proceed to illustrate the progress in blast furnace techniques, and in forging and rolling methods to the period of the Civil War. The growth of large-scale steel production after the war, following the introduction of the Bessemer and open-hearth processes, will be shown with special emphasis on American adaptations and development of these methods. Because of the large size of iron and steel manufacturing equipment, many of these developments will be explained by models and explanatory charts. Historic original objects, such as one of the first steam hammers to be installed in this country, an original electric arc furnace, and a puddling furnace, will be shown. The major changes in the methods of rolling steel and preparing it for use in construction and for consumer goods will be illustrated, including tin plating and porcelain enameling. Modern foundry methods will be shown in the form of a scale model, as will important recent innovations, such as the oxygen process of making steel. The methods of preparations of the raw materials of iron-making, including especially coke, will be described in their historical setting. The importance of quality control will be illustrated by an exhibition of the equipment used for physical testing and chemical analysis.

23. SPECIAL EXHIBITS: HISTORY AND TECHNOLOGY

Programs of changing exhibits will permit the Museum of History and Technology to participate in observations of the anniversaries of historical events, to arrange topical exhibits on the historical backgrounds of current events, and to arrange occasional comprehensive exhibits of recent discoveries of science and new technology. A special exhibition gallery near the Constitution Avenue entrance connects to corridors at the center of the first floor which also are equipped to accommodate changing exhibits. The initial displays in these special exhibition galleries will be selections from exhibits already prepared for the halls which will be opened later. This will give the visitors, in the early months after the opening, the opportunity to see many of the Smithsonian's outstanding objects and to see samples of what "is to come in the Museum of History and Tech-

nology." An active program of special exhibits, changed often and announced in advance, is planned for this gallery.

24. FLAG HALL

The visitor entering the Museum of History and Technology from the Mall will find himself in the central hall of the building, the Flag Hall. Here he will see the Star-Spangled Banner, the flag which flew over Fort McHenry during the attack of the British fleet in September 1814. The gallant defense of the fort and the appearance of the flag inspired Francis Scott Key to write the words of our national anthem. This flag, which is said by some museum experts to be the most important single museum object related to the history of the United States, will for the first time be fully shown. The flag which now measures 30 by 28 feet will be displayed against a supporting fabric which will be large enough to indicate the original dimensions of the flag.

The flag on its supporting fabric will be erected on a specially designed metal grid and will hang in an atmosphere of filtered air carefully controlled for the proper temperature and humidity. The special lighting designed to show the flag with the greatest visual beauty and effectiveness will be carefully screened. Near the flag an exhibit will contain an early edition of "The Star-Spangled Banner," a lithograph of the bombardment of the fort, and typical projectiles of the period. The Flag Hall will be an appropriate introduction to the historical exhibits on this floor.

25. DISCOVERY OF AMERICA

From the Flag Hall the visitor might turn to the corridor in which will stand the well-known statue of George Washington by the sculptor, Horatio Greenough. This statue marks the entrance to the first of five halls in which exhibits will portray the Growth of the United States from the discovery of the Western Hemisphere by European explorers to recent times. In the first hall of the series the voyages of the discoverers will be illustrated with early sea charts, original navigation instruments, arms, armor, and models of ships. Contemporary illustrations of life in the countries from which the explorers and settlers came, personal effects, elements of dress, tools, and weapons, original handbills, and documents will portray the objectives of the explorers, the hopes of the settlers, the homes they left, and what they brought with them. From the natural history and anthropological collections of the Smithsonian, selected plant specimens, animals, and Indian artifacts will illustrate what the settlers found and how they used the land's resources to survive.

26. COLONIZATION IN NORTH AMERICA

In the first century of successful colonization in North America the colonists adjusted to the conditions of the new lands, and patterns of living and working were established. Dominating the second half of the Growth of the United States series will be a full-size New England house of about 1690. This house will be fully equipped with original furnishings of its period. In it the visitor will see the construction of

the home, the central fireplaces which warmed it, the kitchen with its fireplace equipped with hooks, jacks, and beams to support the cooking utensils, the sparsely furnished bedroom, and many other clues to the home life of the colonist, and the start of an architectural tradition. Other exhibits in the hall will illustrate the occupations of the colonists. Farming implements, carpenter and cabinet tools, muskets and snares for hunting, models of boats, church and school furniture, and many others will illustrate the activities and the occupations of the people. The thoughts and hopes of the colonists were expressed in newspapers, prints, books, and broadsides. This aspect of the life of the period will be dramatized by the exhibit of the printing press at which Benjamin Franklin worked.

27. NATIONAL GROWTH

In the third hall of the Growth of the United States series the exhibited objects will portray the activities and the life of the people from Revolutionary times to 1851. The drive to self-government and independence will be illustrated by many documents and objects of the period of 1740 to 1776. Outstanding will be the desk on which Jefferson drafted the Declaration of Independence, Washington's Revolutionary War uniform and sword, and a cannon brought by the French troops under Lafayette. The vital interests that the citizens of the new nation took in themselves and in the land will be illustrated with documentary prints and paintings by Audubon and Catlin. The interest in architecture and design will be illustrated in original drawings and many fine furnishings from the homes of the Washington and Adams families. The enterprise of leading citizens will be illustrated with an exhibit on the building of the Camden & Amboy Railroad which was capitalized on shares to pay for the construction and to purchase the rails and the locomotive, "John Bull," a feature of the exhibit. The ingenuity of the American invention will be illustrated by exhibits of patent models, fine original examples of the Whitney cotton gin, the Colt revolver, McCormick's reaper, Morse's telegraph, and many others. The theme of the hall is American individualism and national pride which is evidenced in the exhibit by the repetition of the American eagle in every field of design, including fire arms, furniture, and textiles. The exuberant culmination of national pride in this period is portrayed in an exhibit depicting the great success enjoyed by the American participation in the first great world's fair, London's Crystal Palace Exhibition of 1851.

28. INDUSTRIAL GROWTH

The great changes which took place in America in the 100 years from mid-19th to mid-20th century are illustrated by the exhibits in the fourth hall of the Growth of the United States series. This was the period of great industrial growth and the mechanization of transportation, communications, mining, farming, and manufactures. The exhibits illustrating this will be composed of outstanding objects selected from the Smithsonian's extensive collections in many fields of technology. Typical of these are the handmade Duryea automobile and the mass-produced Model-T Ford, which illustrate the fact that in about 20 years from the introduction of the gasoline automobile in

this country, it was being produced in great volume with precision and economy and was being sold at a price within the reach of the workmen who built it. Bell's telephone will exemplify the growth of direct communication and Mergenthaler's linotype will explain the surge of mass-produced periodicals and books. The Singer sewing machine will illustrate the application of machine production to clothing as well as the introduction of laborsaving devices into the home. Objects, documents, coins and currency, memorabilia of important men of the times, furnishings, and products of manufactures will illustrate the many changes that took place in the physical, economic, and social aspects of American life of the period.

29. AGE OF SCIENCE

The exhibits in the last hall in the Growth of the United States series will display a number of objects of recent development in many fields of science and technology to illustrate the new eminence of the experimental scientist in the present period of the industrial age. The Goddard rocket, electron optical apparatus, electronic computers, nuclear power, and automation will be among the exhibits. Wherever possible the exhibits will indicate the impact of these and similar developments on the everyday lives of Americans in areas such as home construction, transportation, education, recreation, and entertainment.

30. 17TH CENTURY FURNISHINGS

The two halls of Life in the American Past will exhibit the Smithsonian's collection of period rooms, furnishings, and objects of the decorative arts to illustrate everyday life in America from colonial times through the 19th century. The Hall of 17th Century Furnishings will have an introductory exhibit of European furnishings and arts typical of the homes and circumstances the colonists left to come to America. Adjacent to these will be shown examples of the homes they made in America. A Spanish colonial room will be reproduced from a home in New Mexico. Furniture and folk art from Canadian colonial homes will represent early life in new France. A room of a Story family home built in Essex, Mass., about 1695, will be completely furnished with 17th century objects of appropriate character. This room with its exposed timbers and with one wall of original plaster still intact is an outstanding early period room. Other exhibits illustrating the 17th century life of English colonists will include tools and work of the craftsmen; models and original architectural elements illustrating types of house construction; eating and drinking customs as exemplified by kitchen utensils, tableware, tankards, mugs, and bottles; pottery; and reconstruction of details of 17th century life based on the evidence of archeological finds at a number of colonial sites. The life of the Dutch in America in the 17th century will be indicated in an exhibit of New York State furniture and silver of the period.

31. 18TH AND 19TH CENTURY FURNISHINGS

The second part of Life in the American Past will exhibit in detail the evolution of everyday life in the 18th and 19th centuries. A well-documented early 18th century, three-room log house from Wilming-

ton, Del., will be shown complete with furniture and household objects in keeping with the modest character of the home. Four elegant period rooms of the 18th century will be furnished with fine cabinet work, silver, and pewter. Detailed exhibits of fine silver, 18th century furniture, and outstanding pewter ware will provide collectors and connoisseurs the opportunity to see under the best conditions, the quality of the Smithsonian's collections. Many of the finest of these have been presented to the Smithsonian by generous donors and it is hoped that the fine displays permitted by the new building will repay them, in part, for their splendid cooperation. Exhibits of utensils; carding, spinning, and weaving devices; axes, hoes, and spades; and many other implements, will illustrate the occupations of the farmer and his wife. The visitor entering the 19th century area will find exhibits devoted to the arts and furnishings of the Federal period, American folk art, toys, dolls, and games, heating and lighting utensils, country pottery, mechanical labor-saving devices, sailors' scrimshaw work, and a New Hampshire schoolroom. Victorian taste will be illustrated by exhibits on the Philadelphia Centennial, an 1850 room setting, a library room of 1880 from a Philadelphia house, a complete confectioner's shop and ice cream parlor of 1900, a child's bedroom of 1893, and architecture and furniture of the era. A large exhibit will portray the settlement of the West, and the art of the Shakers will be represented in an exhibit of Shaker furniture.

32. GOWNS OF THE FIRST LADIES

The First Ladies Hall will continue the tradition of exhibiting the dresses worn by the wife or official hostess of each President of the United States in rooms reproduced from various periods at the White House. Two of the rooms will be faithful reproductions of those in the house at 190 High Street in Philadelphia where President and Mrs. Washington lived before the White House was built. All of the furnishings that will be seen in the drawing room reproduced from this house were owned and used by the Washingtons. The rooms from the White House will contain many original features formerly in the rooms. Original fireplaces and mantels, lighting sconces and chandeliers, wall mirrors, and wall paneling will be incorporated into several of the rooms. The rooms will include a music room as it might have looked during the administration of President John Quincy Adams, a reception room of the administration of President Martin Van Buren, a Victorian parlor in the White House, the Blue Room as it looked in 1870, the Blue Room of 1900, and the East Room of the 20th century. In these rooms the gowns of the First Ladies of the White House are displayed on mannequins surrounded by furniture and accessories which have an association with the White House and with the Presidential families. Smaller cases to be placed about the hall will contain personal belongings of the First Ladies and the Smithsonian Institution's collection of White House china. A diorama will show the oval drawing room in the White House of 1814 as it looked after it was redecorated by Dolly Madison and Benjamin Latrobe.

33. HISTORIC AMERICANS

The Smithsonian has for more than a century been known as the national depository for memorabilia of important Americans. It is

appropriate that the families and friends of men and women of national prominence should present to the Smithsonian, as custodian for the American people, interesting and significant objects associated with these men and women. The new building will provide an opportunity to show these collections adequately and fully and the exhibits for the Hall of Historic Americans have been prepared for the purpose of displaying these materials for their maximum inspirational and patriotic effect. A number of Presidents of the United States are represented in the collections by personal and family belongings, furnishings from their homes, objects associated with their recreations and hobbies, memorabilia of significant events, and gifts of state. These will be exhibited in settings to evoke the times and events of their lives. Some of the issues of their days will be illustrated in exhibits of the early campaign badges, banners, and marching regalia of their supporters. Scholars, men of enterprise, scientists, and writers will be represented in the exhibits, and the "first Americans," the Indians, will be remembered in an exhibit of paintings and personal belongings of prominent Indian leaders.

34. AMERICAN DRESS

Authentic examples of the clothing of past periods hold great interest for historians, artists, and the students of style and taste. The Smithsonian collections of garments from the past will be exhibited to the public for the first time when the new hall opens. The best examples of all periods and styles will be shown on lifesize figures which will permit the garments to be seen as they were meant to be worn and also permit the shoes, hats, jewelry, and other accessories to be exhibited as they were worn with the garments. Examples of the dress of American men, women, and children in all periods from the 18th century to recent times will be exhibited. Displays of the costume in the hoop and bustle styles will include unusually detailed and appealing groups of children's dress of the times. From the reserve collections a number of exhibits of hats, shoes, and other accessories as well as extensive collections of jewelry of the 18th, 19th and 20th centuries will be exhibited. Topical exhibits such as "Colors and Fabrics of the 18th Century" and a "Dressmaker's Salon of the 1800's" will provide detailed information on dress materials and the methods of fabricating garments in a number of periods.

35 TO 37. HISTORY OF THE ARMED FORCES

Exhibits arranged in a continuous sequence through three halls of the museum will present the history of the U.S. Army, Navy, Air Force, Marine Corps and Coast Guard. The exhibits of weapons, uniforms, military vehicles, warship models, flags, maps, prints, paintings, aircraft models, and military and naval equipment of many kinds will illustrate the development of the Armed Forces from the experience of colonial Americans in the service of Great Britain, France, and Spain to preparedness for defense against missile attack. Many fine original objects from the Smithsonian collection will be found in this chronology. Washington's favorite sword, a letter written by John Paul Jones, Baron DeKalb's saddle, the flag of a German unit surrendered at Yorktown, the sword carried by Jackson in the War

of 1812, Sheridan's horse, and many other outstanding objects will be shown. The peacetime activities of the Armed Forces will be exemplified with objects from the exploring expeditions of the Army and Navy, in many of which the Smithsonian was associated. Examples of military research and development in such fields as communications, transportation, and medicine will be made particularly effective by reference to the exhibits on these subjects in the science and technology sections of the building. Exhibits on procurement of arms and equipment and the expansion of the services in times of war will illustrate the Armed Forces' dependence upon industry and civilian soldiers.

38. DECORATIONS AND INSIGNIA

Distinctive and honored insignia have played an important role in Armed Forces' history. Pride in unit or ship, esprit de corps, is an essential component of military effectiveness, and it requires that units and their members be easily identified. Exhibits in the Hall of Military and Naval Heraldry will trace the evolution of U.S. insignia. Representative uniforms will be exhibited to illustrate their functions in identifying the wearers and also to show insignia as it was worn on the uniform. A number of outstanding examples of unit flags will be included. Medals of the Armed Forces of the United States awarded for valor, exceptional performance, and service will be displayed and described. These will range from the Medal of Honor to the theater medal. Though the emphasis in these exhibits will be on the U.S. awards, there will be included an outstanding collection of British service medals and what is reported to be the most complete collection of orders of knighthood of the highest grades.

39. ORDNANCE AND THE "PHILADELPHIA"

In the Hall of Ordnance the Smithsonian's renowned collection of arms will be shown well for the first time in exhibits which will trace the evolution of weapons and sporting arms from the Stone Age to the present. American contributions to this development will include original examples from such important inventors as Hall, Colt, Sharps, Spencer, Henry, Gatling, Maxim, and Browning. Individual weapons of great interest will include a Bronze Age sword, a Ferguson breech-loading rifle used in the Revolutionary War, the patent model of the Colt revolver, and the recently introduced U.S. M60 machine-gun. The operation of the mechanisms will be illustrated with animated models and enlarged components of firing and breech systems. The exhibits will include a fine collection of swords and other edged weapons. The heavier types of military and naval ordnance will be reproduced in accurate scale models.

At the end of the Hall of Ordnance is the original Revolutionary War gunboat, *Philadelphia*. This remarkable relic of the Revolution was raised from the bottom of Lake Champlain substantially complete and equipped. Visitors will view it from the floor and also from a raised walkway which will give a view of the mounting of the guns and of the many original small objects found in the gunboat. An accurate scale model will show the *Philadelphia* as she appeared in the battle of Valcour Bay in October 1776.

40. UNDERWATER HISTORY

The methods developed by archeologists during more than 150 years of scientific exploration and excavation of prehistoric sites are being applied now at an accelerating rate to sites falling within the period of American history, with very informative results. Exhibits of the Hall of Underwater History will illustrate how objects obtained from sunken ships have confirmed or added to the knowledge of cultural, marine, and naval historians. Exhibits of divers' equipment will trace the history of diving and show how the use of recently developed techniques has yielded an unexpectedly large number of historically important objects. The rapid advances made in underwater exploration through the development of skindiving will be emphasized in the exhibits. Electronic detectors, underwater cameras, specialized surveying and charting instruments, stakes, and floating markers will illustrate the methods of exploring a wreck or underwater site, surveying and recording its exact position, laying it out accurately so that every object recovered will be documented as to its exact location and its surroundings within the site. Objects recovered from American waters, including many kinds of ship fittings, trade goods, coins, pottery, silver and gold ornaments, bottles, small arms, cannon, and projectiles, will be exhibited and evaluated for their historical significance. Photographs and sketches made of sunken ships will illustrate the technical facts that have been added to the knowledge of early ship design and construction;

41. PHOTOGRAPHY

Philosophers of the Middle Ages knew how to project the image of a brightly lighted outdoor scene upon the wall of a darkened room. A pinhole in a window curtain was all that was needed to demonstrate this. The long evolution of photography from this rudimentary camera obscura to modern high speed and automated equipment will be illustrated with original cameras, lenses, and early photographs. The Smithsonian collection of early direct prints made by the pioneers who discovered light-sensitive chemicals and the methods to employ them to capture picture images will be shown with original early cameras. The work of Daguerre, for example, will be illustrated with the Daguerreotype camera of 1839 used by Samuel F. B. Morse, artist and telegraph inventor. All of the significant wet plate, dry plate, and film cameras will be represented. A photographer's portrait studio of the 1870's will be reproduced and furnished with original equipment.

42. MOTION PICTURE PHOTOGRAPHY

Ingenuous investigators used lines of trip-thread-triggered cameras to photograph the positions of men and horses running past the camera stations. Professor Langley, third Secretary of the Smithsonian, used a camera aimed and triggered like a shotgun to photograph the soaring and gliding actions of birds in flight. These photographs in the Smithsonian's collections answered many scientific questions about motion which could not be seen or recorded directly by eye or brain. They also stimulated inventors to develop apparatus to photograph and reproduce motion. Exhibits in the Hall of Motion Picture

Photography will trace the development with the original cameras and projectors of the pioneers. Patent models of Armat's frame stopping action, Edison's original spool-bank projector, the various mechanisms to synchronize sound with pictures, and a model of an 1892 motion picture studio which revolved with the sun will be exhibited. As in all Smithsonian technological exhibits, the old machines will be used to illustrate the development of the method and processes which made them effective.

43. GRAPHIC ARTS: HAND PROCESSES

This Graphic Arts Hall will illustrate the origins and development of the manual arts and crafts connected with writing, drawing, typographical printing, and pictorial printmaking. The exhibits will include such early methods of graphic communication as cuneiform, pictographs, and hieroglyphics, as well as the evolution of the modern alphabet. The development of typography will be shown through early specimens of type, punches, matrices, and a hand mold for casting type. Examples of fine printing, from a page of the Gutenberg Bible to modern work, will illustrate important advances in type design. Technical displays will show, in step-by-step fashion, how results are achieved in such printing methods as woodcut, wood engraving, line engraving, etching, aquatint, drypoint, mezzotint, lithography, and silk screen stencil. Accompanying historical exhibits will trace the development of each process, through original prints, from early workers to modern practitioners. Included will be excellent impressions by such great printmakers as Durer, Rembrandt, Goya, Whistler, and Matisse. Examples of hand printing presses will include an early screw press made by Adam Ramage about 1820 and a late model of the Columbian Press, America's first iron press, invented by George Clymer in 1813.

44. GRAPHIC ARTS: PHOTOMECHANICAL PROCESSES

The second Hall of Graphic Arts will show the evolution of modern industrial printing methods through the application of photography. Technical displays will include color processes, explain basic principles, and show how results are obtained. Accompanying historical exhibits will trace the development of each method through original examples beginning with the first photomechanical print, a portrait of Cardinal d'Amboise, made by Joseph N. Niepce in 1826. Among the processes described will be photogravure, rotogravure, photolithography, offset lithography, letterpress, collotype, and silk screen printing. Pioneer examples of these processes, drawn from the Smithsonian's unparalleled collection of early photomechanical prints and equipment, will include material by such important workers as William H. Fox Talbot, coinventor of photography and discoverer of the basic principles of photomechanical printing; Paul Pretsch, who established the first commercial firm in this field; Alphonse Poitevin, who patented the first methods for printing in lithography and collotype; and Frederick E. Ives, who developed early methods of halftone printing. Other exhibits will include stereotyping, electrotyping, and the development of power printing machinery. Machines on display will include the first typecasting machine, made by Ottmar

Mergenthaler in 1884; a treadle-operated job press of the 1870's; and Monotype and Linotype typesetting and typesetting machines of more recent date.

45. SPECIAL EXHIBITS OF PRINTS AND PHOTOGRAPHS

For nearly 50 years the Smithsonian has been holding special exhibits of the work of contemporary printmakers and photographers. From these popular and well-attended exhibits the Smithsonian has had the opportunity to select prints and photographs donated by the artists and to build its collections from these gifts. Occasional exhibits in these series will continue to feature selections from the permanent collections. For the first time these special exhibits will have the advantage of modern lighting and adequate space in the new hall designed to display them.

46. NUMISMATICS

The Numismatics Hall, or Hall of Monetary History and Medallion Art, will exhibit the essential elements of a museum of the history of money of all periods and places. Here will be shown real examples of the first coins ever minted in ancient Greece. Following the case that shows these very early coins are others in which a visitor will see illustrated the spread of coinage throughout the ancient Mediterranean world. There will be shown means of exchange other than coins and samples of the gold and other monetary forms of non-European nations. Special feature will be the great collection of colonial American and U.S. coins and paper money for which the Smithsonian has long been famous. The presentation of coins will have a completely novel objective, for it will be organized to teach the history and geography of the world in relation to money. Many of the outstanding gold pieces from the Institution's great Straub collection will be displayed, as will be coins of the Du Pont collection of Russian money. Many examples in the well-lighted cases come from the U.S. mint collection. Examples of almost every coin ever struck in America will be on view or in the study collections of the Institution. The visitor to this hall who comes to it with intellectual curiosity will learn not only the fascinating story of coinage, sculpture, design, and medallion art through the centuries, but also much else that is important in the history of economics and even of civilization itself.

47. PHILATELY

The Hall of Philately is a museum of postal communications, of postage stamps, and of stamp design and printing. An early Stickney rotary press will be in operation simulating the printing of stamps. Other early equipment from the U.S. Bureau of Engraving and Printing will illustrate how the artist's design of a stamp is engraved in steel and how the original engraving is repeatedly transferred to a large steel surface to make a printing plate. The transportation of the mails will be illustrated by models of mail coaches, river and coastwise mail steamers, trucks, mail cars, and airplanes. An early American country-store post office will be reproduced with original fixtures. The postal equipment used in it in 1880 will be contrasted with metered postage printers and other modern equipment. The national

postage stamp collection is an attraction for the thousands of stamp collectors who visit the Smithsonian. For the first time this great collection will be shown in protective cases with enough space to accommodate an example of every postage stamp issued since the first one was printed in Great Britain in 1840. Changing displays of postage stamps will include those issued to commemorate great events or to forward humanitarian causes.

48. CERAMICS

The Ceramic Hall will give an historical and technical representation of ceramic production in Europe and America from about the 17th century to the present day. The introductory section will exhibit the basic processes used in forming and glazing ceramic wares. Adjacent exhibits will contain ceramic materials, such as clay samples before and after firing, and the glaze ingredients, including the powdered metallic oxides used to obtain various colors. A large wall map of the world will give the locations and dates of the important ceramic centers with drawings of typical wares produced or discovered in these areas. A "garden arrangement" of ceramic objects will show the range of ornamental ceramic ware from porcelain tiles to paving bricks.

A chart of the Chinese dynasties with illustrations of significant ceramic advances made in them will introduce the exhibition of Chinese export porcelain. Another unit will show German ceramics, including those from the Meissen factory, the first European factory to discover the formula for true porcelain.

The ceramics of other European countries, including France, Austria, Holland, Italy, Spain, Russia, and England, will follow. The exhibit of American views on Staffordshire will form a transitional exhibition leading to the American and contemporary areas at the end of the gallery. A room opening from the Dutch section and the Staffordshire gallery will contain a detailed collection of tiles. Decorations of pertinent ceramic subjects and techniques, such as the Albrechtsburg Fortress, where Meissen porcelain was first made, will enhance the German room and a ceramic fountain and screen, produced by artists of the New York State Ceramic College at Alfred, will show present-day design trends and techniques in the contemporary American section.

49. GLASS

Fine examples of the glassmaker's art will be shown with exhibits illustrating how glass is made. Technical terms familiar to collectors of glass such as rock crystal, obsidian, and the many variations of glass will be explained through exhibits of the actual materials. The early history of glass will be illustrated with the finest examples from the Smithsonian's extensive collections displayed in chronological and geographical sequence. Each unit whether Egyptian, Roman, Islamic, Italian, German, French, or English will be shown with decorative devices to relate the original glass objects to the styles or patterns of their times. The methods of making early glass will be shown. A large part of the hall will be devoted to American glass of the 18th and 19th centuries. The display of work of such early

American glassmakers as Stiegel and Amelung will be accompanied by sketches illustrating the complexity and size of their glassmaking communities. The long history of popular American pressed glass will be illustrated with examples of the work of many now anonymous designers and makers as well as with the better known Sandwich glass. Scale models of a 20th century glass factory pot furnace and blowing room with an original melting pot will illustrate production methods. A room will be reserved for changing exhibitions of the work of contemporary glass designers.

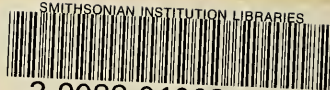
50. MUSICAL INSTRUMENTS

Students of music have an increasing interest in the musical instruments of the periods in which great composers wrote their masterworks. Understanding of fine music is enhanced when the music is heard as originally played on the early instruments for which it was composed. In the Hall of Musical Instruments carefully restored instruments will be displayed so that they may be demonstrated occasionally for museum visitors and students. The handsome keyboard instruments such as the harpsichords, clavichords, virginals, and earliest pianos will be exhibited in a setting conceived as an 18th century drawing room. Included are instruments of the great 17th and 18th century makers, Andreas Ruckers, Burkat Shudi, and Johannes Dulcken. Lutes, viols, guitars, and other stringed instruments will complete the exhibits in this room. Significant examples of 18th and 19th century pianos have been selected for exhibition principally from the Smithsonian's Hugo Worch collection. These and exhibits showing the evolution of wind instruments, the history of musical notations, interesting examples of mechanical musical instruments, and comparisons of instrument mechanisms will be shown in adjoining rooms.

51. CHANGING EXHIBITS

There will be frequent need to arrange special exhibits of new acquisitions, such as gifts of fine porcelain, coins, medals, small arms, stamps, glass, and musical instruments. Other interesting changing exhibits will be produced to show the depth and quality of the Smithsonian's collections in more detail than would be effective or enjoyable in a permanent exhibit. For these and other requirements a special exhibits gallery has been provided on the third floor conveniently located for the visitor to see the permanent collections of objects similar to those shown in the changing exhibits. It is equipped with modern adjustable lighting fixtures required to illuminate a changing variety of objects. Recessed in the walls are concealed channels which are elements of a system for supporting various sizes and shapes of exhibition cases and panels. Built into the floor are ducts for wires required to facilitate and conceal the connections that will be made for lighting and security alarm circuits at free-standing exhibition cases wherever they may be placed. A continuing program of special exhibits will be conducted in this and the larger gallery on the first floor.

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