



SMITHSONIAN INSTITUTION, WASHINGTON, D. C.

NO. 10 (NEW SERIES), OCTOBER-NOVEMBER 1965



Left to right BMD's Andrew Michaels, Richard S. Minnich, Wilbur Harman, Vice President Humphrey, and Owen Moulden at the MHT party on the signing of the bill for the Arts and the Humanities. The party was jointly sponsored by Roger Stevens and Vice President Humphrey.

## SCHEDULE FOR SI FREE MOVIE THEATER

SI's popular Free Film Theater—which attracted more than 8,000 viewers over a six-month period in early 1965—began its second season on October 13 in MNH auditorium. Each movie will have moderators, either representatives from the SI staff or guests especially interested in the program to be presented.

The remaining schedule includes:

**November 10:** *The Mystery of Stonehenge.* Moderator—Gerald S. Hawkins, astronomer, SAO.

**November 17:** *Mark Twain's America.* Moderator—Robert H. Walker, Professor of American Civilization, The George Washington University.

**November 24:** *The Real West.* Moderator—C. Malcolm Watkins, SI's Curator-in-Charge of Cultural History.

**December 1:** 1. *African Quest.* 2. *One Hundred Million to One.* Moderator—Paul E. Desautels, Associate Curator, SI's Division of Mineralogy.

**December 8:** 1. *Visual Perception.* 2. *Frame of Reference.* Moderator—James L. Cole, Assistant Professor of Psychology, The George Washington University.

**December 15:** *The Restless Sea.* Moderator—I. E. Wallen, Assistant Director (Oceanography) of MNH.

**December 22:** *The Vatican—Its Art and History.* Moderator—to be named later.

**December 29:** 1. *Suspension Bridge.* 2. *Chesapeake Bay Bridge.* Moderator—Robert M. Vogel, Associate Curator, SI's Division of Mechanical and Civil Engineering.

## GALLER WINS HIGH AWARD

The highest honor that the Department of the Navy can confer on a civilian employee, the Distinguished Civilian Service Award, has been presented to Sidney R. Galler, newly appointed SI Assistant Secretary for Science. The award was given to Dr. Galler in recognition of his success in establishing highly effective communications between the United States Navy and the biological sciences community. He was cited for "his leadership, drive, and dedication which resulted in outstanding contributions in the fields of hydrobiology and biological orientation." The Navy citation further states that Dr. Galler's work has not only been of enormous value to the U.S. but "to cooperating navies and scientists in Great Britain, Denmark, Italy, and other countries, especially in Latin America."



Sidney R. Galler, right, receiving award from Asst. Secretary of the Navy Morrissey.

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## SI GIVEN WORLD'S LARGEST AERIAL PHOTO

The world's largest aerial photograph—a continuous color-film strip of a 2700-mile-long, 4-mile-wide corridor of the United States—has been presented to SI by the U.S. Navy. The unique color transparency (suggested by Eugene Ostroff, SI curator of photography) is nearly 200 feet long and was photographed by a 2-man Navy crew on a 6-hour, east-west flight, with one in-flight refueling at an average altitude of 30,000 feet. The photograph will go on display in the Hall of Photography scheduled to open in 1967 in MHT.



Left to right: Mr. Bradley, Mrs. Callard, Mr. Callard, receiving Smithsonian Special Service Award for Mr. Callard's outstanding work on the Bicentennial.

## COMET DISCOVERED FOR BICENTENNIAL

Few among the Smithsonian's many Bicentennial guests knew that on September 18, shortly after 2:00 p.m. Washington time, Comet Ikeya-Seki was discovered just in time for the Bicentennial celebration. Unfortunately, the comet was not brilliant when first observed. It brightened considerably, however, and by October 20-21 it became possibly the brightest in a century.

SAO did its best but could not make such a discovery during the celebration for the Smithson Bicentennial. They report the "astronomers still find it pretty hard to produce comets, especially brilliant ones, on short notice."



Secretary Ripley, signing formal recognition of SI Lodge No. 2463 of the American Federation of Government Employees (AFGE). Left to right: Vice Pres. Cooke, Rose, and Martin; Pres. Robinson; Treas. Farrar.



# THE SMITHSONIAN TORCH



AN EMPLOYEES' NEWSPAPER, PUBLISHED MONTHLY  
EDITORIAL BOARD: S. PAUL JOHNSTON, PAUL H. OEHSE, WILLIAM WARNER  
EDITOR: ELIZABETH BEVERLEY PHOTOS: ALBERT J. ROBINSON

## SMITHSONIAN REGENT



FRANK T. BOW

Frank T. Bow has been the Congressional Representative from the 16th district of Ohio since 1950. He is a regent of the Smithsonian Institution, born in Canton, Ohio, Feb. 20, 1901. He attended University School, Cleveland, and Culver Military Academy, Culver, Indiana. In 1923 he was admitted to the bar, after receiving his legal education at Ohio Northern University, Ada, Ohio. In World War II, he served as war correspondent with Ohio's 37th Division in the Philippines. He is married to Caroline Denzer and has two sons.

Congressman Bow received an LL.D. (honorary) from Ohio Northern University in June 1961, and also another LL.D. (honorary) from Mount Union College in 1963.

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## TENNIS TEAM WINS

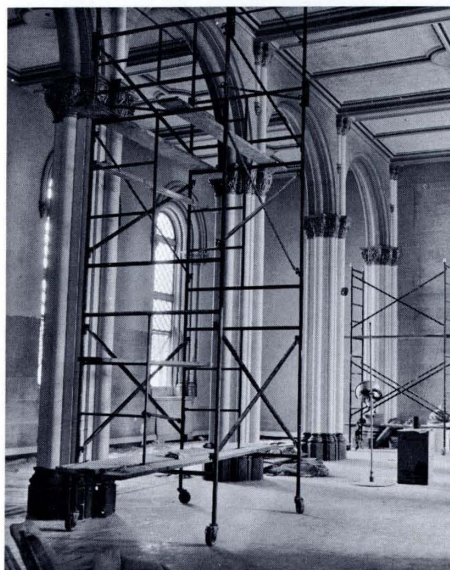
The G.S.L. (Government Printing Office, Smithsonian Institution, and Department of Labor) won the B Division championship. The matches are divided into two halves, and the G.S.L. team won both halves. Representing SI were Raymond Schwartz, (Freer Gallery) and Riddick Vann (MHT Exhibits).

## TIMES CHANGE LITTLE

Following is a quote submitted by Donald Berkebile, Museum Specialist, Transportation Department, MHT, from *The Hub*, a carriage builder's periodical of 1882. Actually, as Mr. Berkebile has suggested, the tune has not changed much and our space problem is still going on.

### QUEER WHEELS

... Having occasion to visit Washington, D.C., a short time since, a vigorous search was instituted to trace certain objects of interest belonging to the general Government, finally found under the care of the Smithsonian Institution. Calling upon Prof. Baird, the honored and courteous head of this department, and stating to him my object, I was informed that, owing to limited room in the present building, the objects sought were packed and lay beneath tons of other specimens, and could not be reached until the new "National Museum" was completed, which, from the magnitude of the work, would not be for some time to come. But the Professor kindly added that he could show me what he considered a greater curiosity than the one I was seeking. Crossing from the Institution into the New Museum building, I was shown, among a wilderness of objects, this Mexican Cart having the Queer Wheels which I have sketched. I might have introduced a striking background, as it was surrounded with stuffed alligators, monstrous seals and fishes, together with the confusion of minerals, animals, birds and curiosities of a disarranged museum.



The Great Hall—Before and After Renovation

## NEHRU EXHIBIT PROVIDES COLORFUL HISTORIC OBJECTS

SI opened a memorial exhibition on the late Indian Prime Minister, Jawaharlal Nehru, Oct. 21 in the 2nd-floor gallery of MHT. This may be seen through Jan. 2, 1966.



ROBERT BJORK

Dr. Abbot, studying the brochure for the Nehru Exhibit

The exhibition presents a portrayal of Nehru the man, his ideas, his achievements, and the story of the India he has shaped. Designed under the direction of Charles Eames, the exhibit contains 1,000 pictures from personal albums of the Nehru family, Nehru memorabilia, objects representing Indian culture, etc. It is one of the most colorful displays recently opened.

## BOTANY DEPARTMENT CHANGES

Dr. Lyman B. Smith has been appointed senior scientist in the Department of Botany, and Dr. John J. Wurdack has been made acting curator-in-charge of the Division of Phanerogams in the department.



The Great Hall—Before and After Renovation

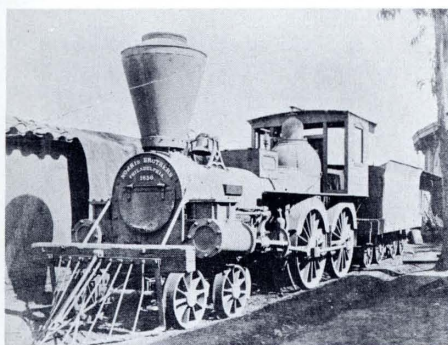


## JACK WHITE VISITS CHILE

John H. White, Jr., associate curator, Division of Transportation, MHT, returned to SI recently from a trip to Chile, where he investigated the first railroad ever built in South America, the Copiapo to Caldera R. R. On his return Mr. White spoke at MHT and showed interesting slides of his trip. All the equipment for this railroad was purchased in the U.S. The line opened about 1851.

The *Copiapo* locomotive was the highlight of the visit. It was retired in 1891 when the line was converted to meter gauge. Preserved in the School of Mines in Copiapo, the engine remains, with only minor alterations, just as it was received from its builders, Norris Brothers of Philadelphia. The arrangement is the common 8-wheel type, the most popular style of American locomotive in the 19th century. With its short wheel base, truck, independent cutoff valve gear, and a Bury boiler, this locomotive is a unique record of early American construction.

During his investigation, Jack White made sketches and notes on the locomotive. He is working on a set of engineering drawings which will be included in a book he is completing on early locomotive design.



Locomotive *Copiapo*

## MERCURY ASTRONOMICAL ACROBAT

From SAO comes the story of the planet Mercury, which SAO believes will turn out to be the first astronomical acrobat. According to Dr. Giuseppe Colombo of SAO (also a professor at the University of Padua, Italy), the tiny planet does a complete "about face" every time it orbits the sun. To accomplish this neat feat, the planet rotates on its axis in exactly two-thirds of the time it takes to orbit the sun. Hence Mercury has precisely one and one-half days per year.

The new rotational period of Mercury at exactly 58.65 days was recognized by Dr. Colombo as an astronomical "locking-in process" never before observed and differing from that of our Moon.

## RIFLE TEAM RECRUITING

All personnel interested in joining the Smithsonian Small-Bore 22 cal. or 30 cal. Rifle team call Joseph M. Young, ext. 5440. Leave name and extension number.

## SI ARCHIVIST APPOINTED



Samuel T. Suratt has been placed in charge of the Smithsonian Archives, which house the Institution's official correspondence, scientific manuscripts and personal papers of its early Secretaries, as well as many other historical documents. Mr. Suratt's major task is to make the Archives' resources more readily accessible to historians of science by better cataloguing, preserving, and identifying historical documents within the Institution.

Mr. Suratt comes to the Smithsonian from the University of California, where he was a History of American Education Research Fellow; he is currently working toward his doctorate in the history of American science and hopes soon to complete his dissertation on the 19th-century American scientist Joseph LeConte.



Dr. and Mrs. G. Arthur Cooper receiving a painting of him at a dinner given by his fellow workers in the Smithsonian, as a testimonial to Dr. Cooper's life-long efforts and work in his field of paleobiology.

## ROBERT VOGEL INVESTIGATES CONNECTICUT FACTORY

Robert M. Vogel, curator of Heavy Machinery and Civil Engineering, MHT, spoke recently on a week-long summer project in industrial archeology—the study of industrial history through the examination of physical remains. The goal of the project was the preparation of a detailed record of the C. P. Bradway Machine Works, at West Stafford, Conn., builder of water turbines since 1889. From the historical standpoint its physical plant has remained practically unchanged since its founding. In equipment and manufacturing methods, it preserves a unique, living record of an American machine industry of the late 19th century.

Little documentary material on the Bradway business ever existed and today practically nothing remains on paper. The Museum's study was based, therefore, upon the building and its manufacturing machinery (of which measured drawings and professional photographs were made), and upon the recollections of Mr. Marshall Bradway, 85, son of the founder. The Bradway works are the last remaining of dozens of New England turbine manufacturers that flourished between about 1860 and 1920, furnishing wheels to power mills and factories throughout the area and the rest of the country. With the general decline in the use of water power in small capacities, production at Bradway's too has all but ceased. The works were originally powered by an adjacent stream, but since 1936 when the great New England floods destroyed the dam, the entire plant has been driven by a 1928 Chevrolet engine belted to the main drive shaft.



C. P. Bradway Machine Works, with son of original owner holding water turbine.

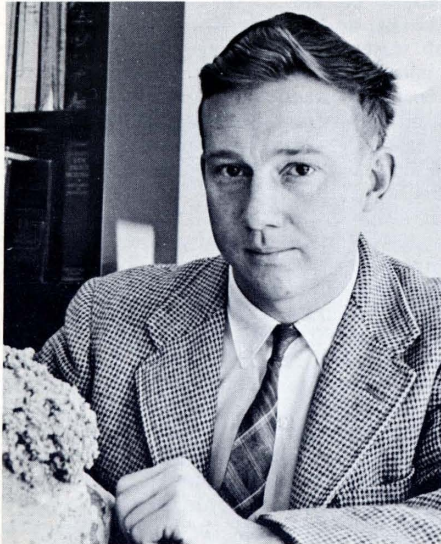
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## SI PUBLICATION ON SALE

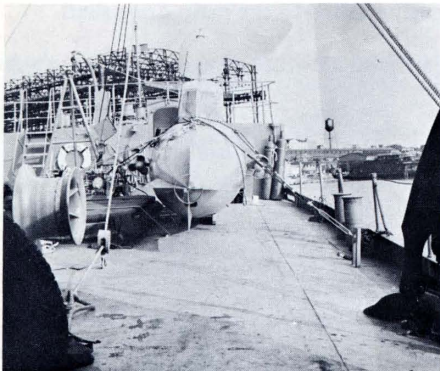
The new Smithsonian publication *The Smithsonian Institution*, published by the SI in association with American Heritage, is now available at the Museum Shops of the Institution. Smithsonian employees may purchase the book at the reduced price of \$2.65. Their identification cards will be sufficient to allow this discount.



# FOCUS: Return of the *Phykos*



Walter H. Adey, associate curator, Department of Paleobiology, MNH, has been with SI for one year. He is a native of Boston, Mass., and did his undergraduate and master's degree work at Massachusetts Institute of Technology. He received his doctorate from the University of Michigan.



Submarine *Ashera*



Dr. Adey and Secretary Ripley Aboard the *Phykos*

The *Phykos*, one of SI's most important pieces of oceanographic equipment, left Washington in July and returned in September. She is spending the winter at the Navy yard here.

SI is attempting, through the journeys of the *Phykos*, to collect material over extended reaches of coast, with the preparation and initial examination of this material on board shortly after collection. This very desirable approach to systematics and ecology has not been used often in marine biology.

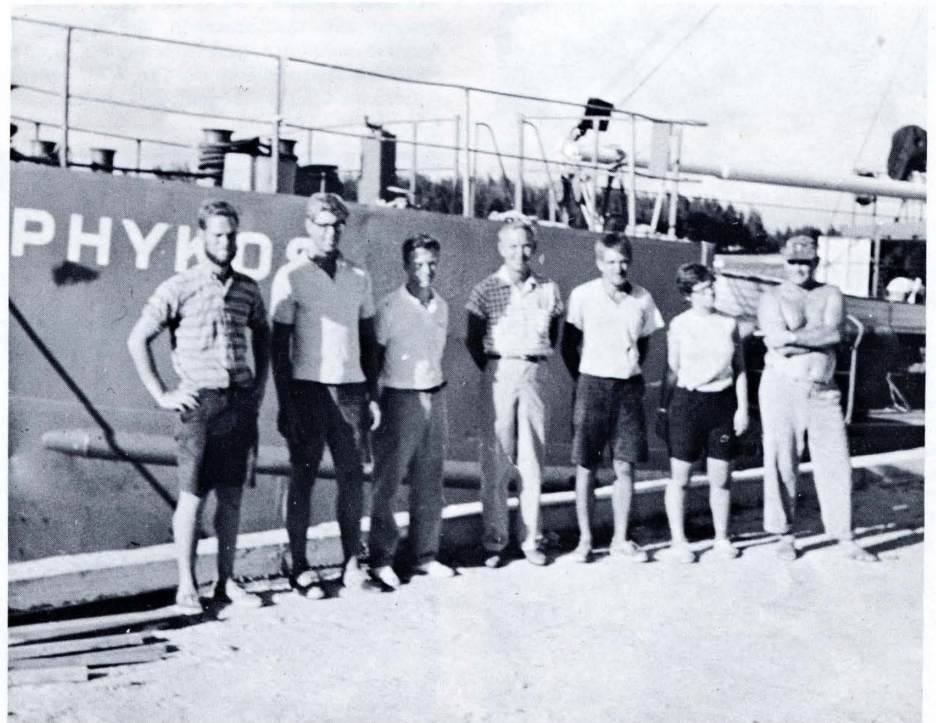
Walter H. Adey, associate curator, Department of Paleobiology, MNH, reports a most successful trip. The ship was staffed by a crew of nine, two women and seven men. The men included the captain and chief engineer, both of whom normally work with the fishing fleet out of Beaufort, North Carolina, and seven students interested in field collecting. The students were not professional mariners. Most of them, however, had been around small boats all their lives and many possessed experience in mechanics or electrical work. All were divers and assisted in the collecting program as well as helping to operate the vessel and participating in the laboratory work. The use of students made

it possible for the project to operate on the limited budget available. Dr. Adey expects at least three or four of the students to return for next summer's trip to Iceland, Great Britain, and Norway.

The *Phykos* sailed this summer from Washington to Nova Scotia and back to the Florida Keys. It docked in Miami just 12 hours before "Betsy," one of the summer hurricanes. The crew made a record collection of coralline algae in the Nova Scotia and Florida areas.

Among the highlights of this summer's cruise were the visits by SI staff members (off Connecticut and off Florida) to view both the work aboard the *Phykos* and the two small submarines, used in the summer work to supplement that of the divers, who could go only 100 feet deep in diving. The Electric Boat Company in Connecticut furnished the submarine *Ashera* and the Perry Submarine Company the *Cubmarine*.

Dr. Adey will spend next summer with the *Phykos* and finish the cruise in Norway, after which the staff will return to the U.S. He will remain in Norway to work for the year with a museum on marine biology. The *Phykos* will stay in Norway during Dr. Adey's visit.



*Phykos* Crew. Left to right: Thomas Cochran, Assistant Engineer; Erik Dicke, Photographer; Walter Adey; Fred Garner, Chief Engineer; Phil Lebednik, Assistant Physiologist; Kye Cochran, Cook and Lab Assistant; William Thomas, Captain. Not pictured: Edward Imbier, Electrician; Patricia Molten, Lab Assistant.