creation the nerve system of that society—his telephone wires and radio channels were the nerves to provide communication among the specialized human elements of the peaceful and efficient social organization yet to be evolved.

In this connection and because of its timeliness, I think you will be interested in hearing a quotation from an unpublished address of John J. Carty in 1923. After referring to Conklin, Carty said:

> We are rapidly constructing a wire and radio system of world communications which is destined to become the nervous system of that vast organism or pseudo-organism known as human society. Whether this organism shall be a sane and peaceful one, or whether we are providing it with a nervous system in preparation for a universal brain storm, requires our most serious consideration.
>
> The progress of science is now so rapid that in less than another hundred years man will be endowed with powers of destruction transcending anything heretofore known. Even half a century hence, communications and transportation may be so far advanced that all of the nations of the earth could be drawn into a war at the end of which the whole world might be in chaos.
>
> That such a catastrophe is possible I firmly believe, but that it can be averted I also firmly believe. This can not be done by slowing down our progress in the application of science to material things; but on the contrary we must accelerate our progress in all the physical sciences, for all of the knowledge thus gained will be required in solving the problem presented by man himself as the fundamental unit of that gregarious organism, human society.[1]

Mr. President: The committee for which I speak is happy to have had the opportunity of making a report so enthusiastically accepted by this academy.

O. E. BUCKLEY

OBITUARY

MARY JANE RATHBUN

DR. MARY JANE RATHBUN, honorary associate in zoology at the U. S. National Museum since November, 1915, died at her home in Washington, D. C., on April 4. Funeral services were held in Washington at the home of her nephew, and burial was at her birthplace, Buffalo, N. Y.

Born in Buffalo on June 11, 1860, Miss Rathbun was educated in the schools of that city, and thereafter devoted a long life of service to the Smithsonian Institution and the U. S. National Museum.

Her brother, Richard Rathbun, later to become assistant secretary of the Smithsonian Institution and director of the National Museum, was, in the early 1870's, already launched on a scientific career which had grown out of his interest in fossil animals found in his father's stone quarries in Buffalo. In the summer of 1881, when he was scientific assistant in the U. S. Fish Commission, his sister accompanied him on one of his annual trips to the commission's summer laboratory at Woods Hole, Massachusetts. There her own interest in biological research was stimulated, and she continued to visit Woods Hole for the next three summers. So great was her interest that she worked for the Fish Commission from 1881 to 1884 without compensation. In 1884 she obtained a position as clerk in the Fish Commission, which she held until 1887, when she was appointed by Secretary Spencer F. Baird, of the Smithsonian Institution, to a position as copyist in the Division of Marine Invertebrates of the National Museum. Later she became aid, then assistant curator of this division. After her resignation in 1914, she was appointed honorary associate in zoology, which title she held until her death.

Miss Rathbun worked for many years alone and unaided to build up the Division of Marine Invertebrates to its present high standard of excellence. She instituted a record system upon which others have never been able to improve. It not only is in use in the division to this day, but has been studied and adopted by other divisions of the museum. She also established a systematic catalogue of the thousands of specimens of marine invertebrates handled by the division, whose files contain hundreds of catalogue cards made out by her in longhand during the many years before a typist was available for this work. The division, as it is constituted and operated to-day, continues to rest upon the solid foundation that she built for it.

Because of her enterprise, the collections and correspondence of the division grew to such proportions that it became imperative for her to have assistance in handling them. When she asked for such an assistant, however, she was told that the museum funds would not permit the appointment of another person. It was then that she made the decision which forever after endeared her to her colleagues, and particularly to the man who benefited by her action. Without hesitation, on December 31, 1914, she resigned her position, in order that her salary could be used for paying an assistant. The assistant for whom she thus made place was Dr. Waldo L. Schmitt, who later became curator of the division. He declares that but for this act of sacrifice he might never have embarked upon the career to which he has devoted his life and which has only recently led to his designation as head curator of the Department of Biology at the museum. He deeply regrets that his absence from the country

[1] Address on "World Communications," at The University Club, New York, February 10, 1923.

at this time made it impossible for him to prepare this obituary notice.

Though now resigned from the museum payroll, Miss Rathbun went to work as usual, and continued to serve full time for twenty-five years thereafter. Thus her Government service ended as it began—with devotion to science and without compensation.

Her own special field of interest was the Crustacea, particularly the crabs, both recent and fossil. Her bibliography on these animals embraces 158 titles. Perhaps her most important and best-known works are her four large monographs on the grapsoid, spider, cancroid and oxystomatous crabs of America, published as bulletins of the U. S. National Museum between 1918 and 1937. In 1917 the George Washington University conferred upon her the degree of doctor of philosophy in recognition of her work on the grapsoid crabs.

Miss Rathbun was interested in a number of charities, but her assistance and contributions to worthy enterprises were given quietly and not much was known about them by her colleagues. It is known, however, that for some years after the last war, when life was very difficult in Austria, she contributed to the support of the small daughter of an Austrian scientist who had long been one of her correspondents. It is only to be hoped that her services to that child, who is now a young woman in Nazi Germany, were not in vain.

Aside from her interest in her work, which took up the greater part of her time, Miss Rathbun was interested in both music and the theater. She was a familiar figure at the concerts given in Washington by the Philadelphia and Boston Orchestras until about four years ago, when her health failed to such an extent that she was no longer able to go out.

To those who knew her and worked with her, Miss Rathbun was a staunch friend, an able counselor and a willing guide. With her passing the museum and science have lost a friend whose loyalty and devotion can not soon be duplicated.

LUCILE MCCAIN

U. S. NATIONAL MUSEUM

RECENT DEATHS

DR. HERBERT E. HAWKES, professor of mathematics at Columbia University and dean of the college, died on May 4 at the age of seventy years.

DR. ELLWOOD B. SPEAR, since 1928 manager and director of research of the Vultex Chemical Company, previously a member of the faculty at the Massachusetts Institute of Technology, died on May 1. He was sixty-eight years old.

DR. W. H. A. LEUKEL, agronomist with the Florida Agricultural Experiment Station for the past seventeen years, died on April 27. He is known for his work on Florida grasses and crops.

SCIENTIFIC EVENTS

MUSEUM ATTENDANCE AND THE WAR

THE Museums Council of New York City has issued to its members a statement giving figures of attendance at the museums, botanic garden, zoological park and the New York Public Library of the city for the calendar year 1942, with comparisons for 1941. The accompanying table gives these figures and the percentages of increase and decrease of attendance for eight (out of nineteen reported on) of the more largely attended institutions. It is interesting to note that the only institutions that show increased attendance in 1942 are two private institutions that charge 25 cents admission. The semi-public institutions, supported in part from the tax budget of the city and in part from private funds, are open free to the public daily.

The report as issued attempts no explanation of the falling off of attendance, but it seems reasonable to infer that the decrease was due to one or more causes growing out of the war. The order of the Board of Education of the city prohibiting public-school classes from visiting any outside institution for instruction for the larger part of the year would account for a part of the loss. The attendance of classes in normal times adds something, of course, to the figure of total museum attendance. The institutions in the table are arranged in the order of percentage of gain or loss of attendance.

ATTENDANCE AT NEW YORK CITY MUSEUMS, 1941 AND 1942

	Attendance 1941	Attendance 1942	Change	Per cent. of change
Increase:				
1. N. Y. Museum of Science and Industry	360,771	414,410	53,639	+15
2. Museum of Modern Art	274,070	279,417	5,347	+ 2
Decrease:				
1. N. Y. Zoological Park	3,320,313	2,319,052	1,001,261	−32
2. Brooklyn Museum	523,856	381,772	142,084	−27
3. New York Public Library	3,331,309	2,772,419	558,890	−17
4. American Museum of Natural History	1,618,765	1,388,561	230,204	−14
5. Metropolitan Museum of Art	1,028,950	896,466	123,484	−13
6. Brooklyn Botanic Garden	1,753,381	1,660,046	93,335	− 5