tors (a new consideration). The medical staffs of fourteen municipal emergency stations were also increased for the same purpose as well as for emergency house visit duty, especially at night. Meanwhile it has been decreed that the foregoing measures shall be discontinued on November 16.

When the question of obligatory practice in villages was taken up, the diet decided to take other measures to satisfy the demands for medical service and to raise the number of physicians. There are five universities with faculties of medicine, and the government proposed to establish a medical school in Lodz, a city of more than 500,000 inhabitants, which has had no university. The project was welcomed by the inhabitants of Lodz, and a committee was organized to supply financial aid for the founding of the school. The anti-Semitic organizations of students of medicine in other cities, however, passed a resolution protesting against the establishing of the school, claiming that it would increase the percentage of Jews in the medical profession, since there are many Jews in Lodz and the committee is supported financially by Jewish philanthropists. This action of the anti-Semitic students is held by democratic groups to be a handicap in the supplying of sufficient medical aid to the country. In spite of it the building of the new medical school will begin shortly.

THE COUNCIL FOR PEDIATRIC RESEARCH

THE Council for Pediatric Research is essentially a committee of the American Academy of Pediatrics, which has been in operation now for somewhat more than a year, supported for a trial period by a grant from the Carnegie Corporation. Its members are: Kenneth D. Blackfan, *chairman;* Thomas B. Cooley, *executive secretary;* Alexis F. Hartmann, Irvine McQuarrie, Oscar M. Schloss and Fritz B. Talbot. Offices are at 660 Frederick Street, Detroit.

The prime reason for the formation of the council lay in the notoriously unsatisfactory system of direct subsidization by manufacturers of investigation of their products by clinics and laboratories. Such investigations are usually prompted by a real desire to ascertain the value and uses of such products; sometimes merely for use in advertising. Studies primarily intended for advertising may, however, by proper handling give opportunity for really worth-while research. Some manufacturers are experienced enough to select competent investigators, others have wasted large amounts of money on ill-conceived, superficial, often obviously biased studies. At the best, direct subsidization is not very dignified and is open to suspicion of bias. It was believed that an impartial and authoritative committee might perform a real service by acting as intermediary between manufacturer and investigator, selecting qualified persons to carry out particular studies, suggesting or criticizing plans and finally, on publication, giving the study the stamp of its approval. It was planned that the council should charge a fee for such services, which eventually, in addition to covering its overhead, might build up a "free fund" to assist and stimulate needed research. Foundations and private philanthropists also might well dispense funds through the medium of the council.

Progress at first was slow. It was necessary to locate and gain the confidence of probable sources of grants for research, and at the same time to accumulate information as to capacities and interests of investigating clinics and laboratories. This groundwork has largely been done, and recently has shown results in the way of a number of projects which have been brought to the council for allocation to responsible clinics, and in several cases for assistance in planning a proper type of study. Another type of activity which it has recently undertaken is participation in a rather elaborate scheme for an intensive, long-term study of the various physical and mental phenomena of adolescence.

The council believes that as it becomes better known requests for its assistance will be multiplied, and its prime purpose of encouraging worth-while research furthered. It will welcome inquiries by any one interested.

THE ANNUAL REPORT OF THE SECRETARY OF THE SMITHSONIAN INSTITUTION

PROGRESS, especially in the design and construction of delicate instruments for astronomical and biological studies, and large additions to the scientific and historical collections were reported by Charles G. Abbot, secretary of the Smithsonian Institution, to the annual meeting of the Board of Regents.

The year was marked by progress in the building of the new National Gallery of Art presented to the nation by the late Andrew W. Mellon, and by the designation of a site and an appropriation for preliminary plans for a Smithsonian Gallery of Art.

Among the new instruments designed was an improvement of the galvanometer associated with the newest type of thermocouple. Dr. Abbot is confident that when the 200-inch telescope of the Carnegie Institution of Washington is available it will be possible with this instrument to get continuous spectrum energy curves of all types of stars.

A new observatory for solar radiation has been installed on Burro Mountain near Tyrone, N. M., to cooperate with the existing Smithsonian observatories in California and Chile to study solar variation and weather. Among plans for the future is one dealing with the measurement of variations of the sun's ultraviolet radiation in the upper atmosphere which can be determined by the amount of ionization of atmospheric

atoms measured with an instrument attached to a sounding balloon. The greatest variation in the sun's total radiation comes in this ultra-violet band. Knowledge of it is expected to prove of value in weather prediction.

Dr. McAlister, of the Division of Radiation and Organisms, discovered a new phenomenon of photosynthesis—an uptake of carbon dioxide by leaves in darkness. This discovery was due to the development of a new instrument for measuring carbon dioxide assimilation—a subject hitherto practically beyond the possibility of investigation.

The addition of nearly a thousand animals was made to the collections of the National Zoological Park through an expedition to the East Indies led by Dr. William M. Mann, director of the park, and financed by the National Geographic Society. The collection included numerous species never before exhibited at the park.

The Bureau of American Ethnology, the branch of the Smithsonian Institution devoted to study of the primitive peoples of the New World, made progress in untangling the complex of Indian languages, especially the extensions of the Athabascan, the tongue spoken by the red men of northwestern Canada. This has an intimate connection with the problem of the peopling of the New World by migrants from Siberia. Archeological work was continued on the site in Colorado where Folsom man, the earliest known inhabitant of this continent, made weapons and tools used in hunting extinct animals that flourished during the closing days of the last ice age.

Important Arabic, Chinese and Persian manuscripts, paintings and art objects were added to the collection of the Freer Gallery of Art; and 312,729 specimens were added to the collections of the National Museum.

AWARD TO PROFESSOR WOOD OF THE RUMFORD MEDAL OF THE ROYAL SOCIETY

THE Rumford Medal of the Royal Society, London, as already announced in SCIENCE, was awarded at the seventy-fifth anniversary meeting of the society on November 17 to Professor Robert Williams Wood, professor of experimental physics at the Johns Hopkins University. The medal has now been received in Baltimore by Dr. Wood, who was unable to attend the ceremony. It weighs fifteen ounces and is about three inches in diameter. On its surface is a profile of Count Rumford. With it was sent a silver replica of the medal.

Accompanying the medal was the following citation of Sir William Bragg, president of the society, which was read at the anniversary meeting:

Professor Robert Williams Wood is awarded the Rumford Medal. The study of physical optics owes much to Professor Wood, who has been one of the leading experimenters in this field for the past 40 years. There is hardly a branch of the subject which he has not enriched by the touch of his genius.

Before the advent of Bohr's quantum theory, when our knowledge of the structure of atoms and molecules was very meager, he had discovered the line and continuous absorption of sodium vapor, the phenomenon of resonance radiation of gases and vapors, and the quenching of this radiation by foreign gases. These discoveries opened up rich fields of research and were of the greatest value to later workers in laying the foundations of the theory of atomic and molecular spectra.

The elucidation of the phenomenon of resonance radiation demanded the utmost experimental skill and resource. Nothing less powerful than an improvised 40-foot focus spectrograph sufficed for his work on the remarkable resonance spectra of molecules! Even now one can not but admire the beautiful and ingenious experiments on the independent excitation of the yellow sodium lines.

In addition to his researches on the resonance radiation of metallic and other vapors, Wood investigated their magnetic rotation and dispersion. His work on the magneto-optics of sodium vapor both in the atomic and molecular state is now classical.

More recent but belonging to the same domain of experiment are the very interesting discoveries of Wood and Ellett on the magneto-optics of resonance radiation.

Wood's mastery of technique is universally acknowledged. He has introduced many ingenious and striking devices to experimental method. These are too numerous to catalogue here, but I would mention specially his method of the production of atomic hydrogen and his observations on the spontaneous incandescence of substances in atomic hydrogen which led to the invention of the atomic hydrogen welding torch by Langmuir; his very efficient and now widely used method of observing Raman Spectra; his échelette grating which has proved to be the grating *par excellence* for the investigation of the near and far infra-red, and his pioneer use of light filters in ultra-violet and infra-red photography.

SCIENTIFIC NOTES AND NEWS

ON the occasion of the sixtieth birthday of Professor Howard T. Karsner, director of the Institute of Pathology and for twenty-five years professor of pathology at Western Reserve University, his associates and former pupils commemorated the event by presenting him with his portrait, painted by Rolf Stoll, head of the department of portraiture of the Cleveland School of Art. The event took place at a tea in honor of Professor and Mrs. Karsner on January 6, at the Institute of Pathology. Preceding the tea, the fac-