

to use the lamp of experience in its search for the paths to be followed.

And your assistance will perhaps be more particularly valuable, indeed necessary, in the readjustments necessary in that most important factor, the medical profession and its allies, for medicine in its broader meaning includes all the arts and sciences that may contribute to increasing the mental and physical health of a people.

However much men may differ as to the goal we should strive to attain or the means and methods to be used, all must agree that no people can become or remain great or happy—the public welfare achieved, unless its individuals have sound minds in sound bodies. While we appreciate that all the arts and sciences must contribute to our efforts to reach our goal, nevertheless it is to the medical and its allied professions, especially perhaps to that section devoted particularly to the public health, which by its training, its knowledge of the individual body and mind and its dedication to the task, that we shall be wise in looking for guidance and coordination of effort.

It is because I feel that you wish to show appreciation of their achievements by awarding this great honor to a representative of the profession that I accept it with humility as an individual but with pride as a physician.

As any contribution I have made to public health has been possible only because of the splendid *esprit de corps* of the United States Public Health Service, I am sure that my fellow officers will feel that they have a share in this appreciation of our work.

HUGH SMITH CUMMING

#### REMARKS BY THE PRESIDENT

THE next medal and monetary award is named after one of our most distinguished and meritorious members, John J. Carty, eminent for his work in telephonic communication, especially wireless, and also trans-continental and transoceanic telephony. It was established by an endowment shortly before his death at the end of 1932; he was the first recipient and was informed of the award, but the actual presentation was made, after his death, to his son at the spring meeting of the academy in April, 1933.

The award this year is made to Edmund Beecher Wilson, Da Costa professor emeritus of zoology in residence at Columbia University, and unofficial dean of zoology in America. This recognition of a long, brilliant and devoted scientific career is a great satisfaction to his many friends, of whom I count myself as one of the chief. The chairman of the committee, Frank B. Jewett, president of the Bell Telephone Laboratories, will state the basis for this award. I have much pleasure in presenting Dr. Jewett.

F. R. LILLIE

#### PRESENTATION OF THE JOHN J. CARTY MEDAL AND AWARD TO DR. EDMUND BEECHER WILSON

*Mr. President:* In connection with presenting Dr. Edmund Beecher Wilson to you for receipt of the John J. Carty Medal and Award for the Advancement of Science, voted to him last spring by the academy, it is appropriate that a word both as to the history of the medal and award and Dr. Wilson's qualifications for it should be made. I am happy that it falls to my lot as chairman of the Carty Medal Committee to make these few remarks.

The late General John J. Carty, in whose honor this medal and award were established, was for many years a distinguished member of the National Academy of Sciences. His major activity throughout his active life was concerned with the development of electrical communication. At the time of his death on December 27, 1932, it can be said without fear of contradiction that he was recognized to be the most distinguished communication engineer in the world. This distinction had long been his, and when on June 30, 1930, he retired for age from active service as vice-president of the American Telephone and Telegraph Company, his associates in the Bell System sought for some appropriate way in which to signalize their esteem for him and for his contributions to science and engineering. Recognizing as they did the wide and scholarly sweep of his intellectual and scientific interests and his deep and abiding faith in the value of the National Academy of Sciences as a powerful instrumentality for the advancement of science in the United States, they decided that nothing could be more appropriate nor more pleasing to General Carty than the establishment of a perpetual medal and award in the academy to be named for him.

The result of this decision was that the directors of the American Telephone and Telegraph Company, acting for themselves, the stockholders of the company and the employees, all of whom recognized their great debt to General Carty, gave to the academy the sum of \$25,000 to be held in trust, with the income available periodically for the bestowal of a gold medal and a monetary award. In addition to this General Carty's immediate associates in the management of the American Telephone and Telegraph Company, as a token of their particular admiration and esteem, arranged for the design of the medal and the making of the dies needed for striking it.

In order that with the passage of time the medal and award should achieve a real distinction, and because of the catholicity of General Carty's interest in the whole domain of science, the donors in their deed of gift specified only two major requirements. The first and lesser of these requirements was that the medal and

award should not be bestowed oftener than once in two years. As a part of this condition it was specified that with every award the net accumulated income since the time of the last award should be given to the recipient along with the medal and certificate.

The second and major condition specified by the donors was that the award should be to an individual for noteworthy and distinguished accomplishment in any field of science coming within the scope of the charter of the National Academy of Sciences, and should be either for specific accomplishment or for general service in the advancement of fundamental and applied science; and further, that there should be no limitation placed on the individual sought to be honored by virtue of race, nationality or creed. The method of selecting the candidates was to be voted on by the academy and the method of taking such vote was left entirely to the discretion of the academy.

Under the conditions of this deed of gift the academy is assured at all times of complete and untrammelled freedom to bestow this particular honor periodically on any one anywhere and for any achievement in the field of its present or future interest, whenever in its judgment such bestowal is appropriate.

Thus far since its establishment the medal has been bestowed but once, and that through unanimous vote of the academy on General Carty himself. Fortunately this evidence of esteem was made before General Carty's death and was a source of the deepest gratification to him. Unfortunately, presentation of the medal had to be made posthumously.

On this occasion the action of the academy last spring was on the unanimous recommendation of the Carty Medal Committee. This recommendation was made after long and painstaking consideration. In presenting Dr. Wilson to you I feel I can do no better than to quote from the report of the committee as follows:

In recent years, Professor Wilson has stood preeminent in the field of zoology, and the influence he has had on two generations of biologists is of a very high order. His individual researches on experimental embryology are classical, and his papers on cytology have been fundamental. His great book, *The Cell in Development and Inheritance*, has perhaps influenced subsequent biological thought more than any other book produced in this country.

In arriving at its present decision to recommend Professor Wilson, the committee has been guided by the terms of the Deed of Gift, which as they relate to the recipient's qualifications read as follows: "The award may be either for specific accomplishment in some field of science, or for general service in the advancement of fundamental and applied science."

In view of his outstanding contributions the committee has no hesitancy in suggesting that Professor Wilson's selection is appropriate both as to specific accomplishment

and general service, and we, its members, believe that every consideration points to him as one eminently qualified to receive the Carty Medal.

It is now therefore my very great pleasure to present Professor Wilson for the Carty Medal and Certificate, and its accompanying award, which in this case I understand to have a value of \$3,000.

FRANK B. JEWETT

#### REMARKS BY THE PRESIDENT

IN the absence of Professor Wilson I shall ask Professor Ross G. Harrison, of Yale University, to receive the medal and monetary award which I hereby present, and request him, together with Dr. Jewett, to transmit them to Professor Wilson with the congratulations of the academy on a long life well spent in the service of science, and our best wishes for the fruition of his career and enjoyment of life.

It is customary for recipients of our awards to acknowledge them in a manner always characterized by undue modesty; in this case I shall ask Professor Harrison to speak on behalf of the recipient with the usual cause for such modesty removed.

F. R. LILLIE

#### RESPONSE ON BEHALF OF THE MEDALLIST

THE rôle in which I am placed this evening is an unusual one in its duality. It is a great pleasure for me to receive the Carty Medal and Award for transmittal to Dr. Wilson, and on his behalf I express to the committee and to the academy his thanks and his high appreciation of the honor they have conferred upon him. At the same time, as a member of the academy, I hasten to add my congratulations to the committee on their admirable choice, and to say, what Dr. Wilson's modesty would preclude him from saying, that no one better qualified to receive this award could possibly have been chosen.

I take it that what you most desire from me is a brief estimate of Dr. Wilson's life work and his place in the science of his time, although in so doing I can not quite separate my own personal relations with him. I first knew Wilson as a tradition. He had preceded me by a decade or so at the Johns Hopkins University, and when I began my biological studies there as an undergraduate in the late eighties, he had some years before received his Ph.D. degree and had already made a substantial reputation as a young professor at Bryn Mawr College. The text-book on biology, written in collaboration with W. T. Sedgwick, was used in our course and its excellence was generally recognized. And so it was with a certain awe that I first looked up to Wilson—a feeling that has long since been tempered by the warmth of friendship. For this I have, perhaps, to thank most the particular circumstances of our association on the editorial board of the *Journal*