permanent secretary of the National Research Council reports that most of the material for the seventh volume is now in type. It is not possible, however, to say when this volume will be ready for distribution for the reason that this, being the final volume of the series, will contain the general index, which will probably require several months for its preparation, since it is to appear in four languages, and much time must be allowed for translation and attendant correspondence in its compilation.

However, the Council is now in the final stage of this undertaking, the editorial work on which began in the summer of 1922, and the collection of funds two years earlier. Altogether about $205,000 has been contributed by industrial corporations and philanthropic organizations toward the editorial work of the tables. Royalties on the five volumes published prior to this fall amounting to $45,078.75 have been received and applied to the editorial expenses. With the receipt of royalties on the later volumes the remaining editorial work can be fully provided for. Together with interest received on funds temporarily invested and from other miscellaneous sources a total sum of about $235,000 will have been expended through a period of eight years on the editorial preparation of these tables. The total number of subscriptions to the tables at the prepublication rate of $7 per volume is about 6,700, and at the regular price of $12 per volume about 400. The total number of paid-up subscribers in both classes for the first five volumes of the series is about 6,300. Of these about 5,000 have subscribed for Volumes VI and VII.

The Council of the National Academy has approved the appointment of the committee recommended at the last meeting of the executive board to pass upon requests to reproduce material from the tables. This committee consists of the editor-in-chief of the tables, the permanent secretary of the council, and the chairmen of the council's divisions of physical sciences, and of chemistry and chemical technology.

RECENT APPOINTMENTS AT THE MELLON INSTITUTE

DR. E. R. WEIDLEIN, director of Mellon Institute of Industrial Research, Pittsburgh, Pennsylvania, has announced the following appointments at that institution made between July 1, 1929, and January 1, 1930. The appointments for the first half of 1929 appeared in the August 2 number of SCIENCE on page 115.

Senior industrial fellow:

James N. Lawrence, Ph.D. (Wisconsin, '12), has been appointed to the senior incumbency of the multiple industrial fellowship on wax. He succeeds Dr. D. K. Tressler, who has joined the research staff of the General Foods Company, Gloucester, Massachusetts.

Industrial fellows:

Henry A. Ambrose, Ph.D. (Mass. Inst. Tech., '30), has been appointed an industrial fellow on the multiple fellowship on petroleum production.

N. J. Beaber, Ph.D. (Iowa State College, '25), has been appointed to the nicotine fellowship. He was previously engaged at the institute in research on the gum fellowship.

Alexander C. Brown, M.S. (Mass. Inst. Tech., '26), has been added to the personnel of the multiple industrial fellowship on fatty acids. Before going to Pittsburgh, he had spent a year in Germany and two years in industrial work on petroleum.

Jasper S. Brown, B.S. (Maine, '26), has been appointed to the multiple fellowship on petroleum production. His previous experience was gained at the Pittsburgh Station of the U. S. Bureau of Mines.

Frank L. Jones, M.A. (Columbia University, '27), has been appointed to the enamels fellowship. Before accepting this position he was engaged in work toward the doctorate at Columbia, and he has also had teaching and industrial experience. He is succeeding B. A. Rice, who has joined the Pfaudler Company.

Ronald B. McKinnis, Ph.D. (Pittsburgh, '30), has been appointed to the can fellowship.

S. M. Martin, Jr., M.S. (North Carolina, '29), has joined the research staff of the multiple industrial fellowship on petroleum refining. Before going to the institute, he had had several years' experience in rubber technology.

Daniel C. L. Sherk, Ph.D. (Wisconsin, '20), has been appointed to the wood by-products fellowship. He has been engaged in industrial work since receiving his doctorate.

Thomas H. Swan, Ph.D. (Ohio State, '24), has been appointed to the garment fellowship. Since 1924 he has been the holder of the institute's bed fellowship.

A. J. Teplitz, B.S. (Kansas, '26), has been appointed an industrial fellow on the petroleum production fellowship.

Richard B. Unangst, B.S. (Lafayette, '16), has joined the personnel of the multiple utensil fellowship. Since 1916 he has been engaged in industrial work.

THE MICHIGAN ACADEMY OF SCIENCE, ARTS AND LETTERS

THE thirty-fifth annual meeting of the Michigan Academy of Science, Arts and Letters will be held in Ann Arbor on March 20, 21 and 22, 1930. The officers of the year are:

President—Oliver Kamm, Parke, Davis and Company, Detroit
Vice-president—Arthur E. R. Boak, University of Michigan
Secretary—Dow V. Baxter, University of Michigan
Treasurer—E. C. Prophet, University of Michigan
Editor—Peter Okkelberg, University of Michigan
Librarian—W. W. Bishop, University of Michigan
Section chairmen:

Anthropology, Fred Dustin, Saginaw
Botany, Frieda Cobb Blanchard, Ann Arbor

Economics and sociology, L. H. Seltzer, Detroit
Fine arts, Carleton Angell, Ann Arbor
Forestry, S. A. Graham, Ann Arbor
Geography, Wade DeVries, Lansing
Geology and mineralogy, Chester B. Slawson, Ann Arbor
History and political science, Howard B. Calderwood, Ann Arbor
Language and literature, F. W. Peterson, Ann Arbor
Mathematics, R. C. Shellenberger, Bay City
Sanitary and medical science, W. L. Mallmann, East Lansing
Psychology, W. C. Trow, Ann Arbor
Zoology, R. A. Muttkowski, Detroit

PRESENTATION OF THE JOHN FRITZ MEDAL

THE John Fritz medal was presented to Dr. Ralph Modjeski, member of the American Society of Civil Engineers, of New York and Chicago, at the annual banquet and reception of the society in the Hotel Commodore, New York City, on the evening of January 15. Approximately six hundred members and guests of the society were present. Immediately following the dinner Mr. Harrison P. Eddy, member of the society, as master of ceremonies, presented the newly elected president of the society and three honorary members, and then resigned the chair to Bancroft Gherardi, past-president of the American Institute of Electrical Engineers, as chairman of the John Fritz Medal Board of Award.

Mr. Gherardi spoke briefly of the purposes and history of the medal and introduced Mr. J. V. W. Reynders, past-chairman of the board of award and past-president of the American Institute of Mining and Metallurgical Engineers. Mr. Reynders summarized the achievements of the twenty-five preceding medalists, in subject groups, and then outlined Dr. Modjeski's personal history and emphasized his contribution to the art of bridge building, especially during the period of construction of great bridges in the United States.

Chairman Gherardi then presented Past-President Dexter S. Kimball, of the American Society of Mechanical Engineers, as chairman of the board which made the award to Dr. Modjeski, who spoke of the great contributions to human life made by engineers and scientists in the fields of machine tools, application of power, transportation and communication. He also alluded briefly to great contributions of the sanitary engineer and of the medical research men for the benefit of public health and of the engineering educator to the general advancement of the practice of the profession.

Following his address and in accordance with established custom, Dr. Kimball, as chairman of the board, presented the medal and certificate to Dr. Modjeski for "notable achievement as an engineer of great bridges combining the principles of strength and beauty." Dr. Modjeski responded briefly, accepting the honor.

SCIENTIFIC NOTES AND NEWS

AS was reported in a recent issue of SCIENCE, Professor Michelson, having recovered from a serious attack of pneumonia, expects to return soon to Pasadena in order to continue by new methods his measurements of the velocity of light. The following appears in the London *Times* for January 8: "The death of Professor A. A. Michelson at the age of seventy-seven, announced at a recent meeting of the Académie des Sciences of the Institut de France, of which he was a corresponding member, deprives the scientific world of a physicist of original genius and remarkable achievement." There follows an extended obituary notice. Reference is made here to the matter in order that in so far as possible the anxiety caused by these announcements may be relieved.

A LESS serious error has occurred through the circumstance that it was cabled by the Associated Press from Stockholm that the Nobel Prize in physics had been awarded to the Duc de Broglie for his work on "Wave Mechanics." Duc Maurice de Broglie has accomplished distinguished work on X-rays, including their diffraction by crystals and the proof of Einstein's photoelectric equation in the region of X-ray frequencies, which in the opinion of physicists would warrant the award of a Nobel Prize to him. The work on the relation between waves and particles has, however, been accomplished by the younger brother of the Duc, Louis de Broglie, and it is to him that the Nobel Prize has been awarded.

DR. J. C. ARTHUR, professor emeritus of botany at Purdue University, celebrated his eightieth birthday on January 11. At a luncheon held in his honor by the staff of the department of botany of the Agricultural Experiment Station, Dr. Arthur gave an account of the earlier work and the development of the department of which he was head from its founding in 1888 to his retirement in 1915. Since retiring Dr. Arthur has been actively engaged in a continuation of his studies of rusts, having just published a book entitled "Plant Rusts."

MONDAY, January 13, marked the twenty-fifth anniversary of Dr. P. A. Levene's connection with the