ployment levels during the period of transition. And let them finally, with still greater fortitude and statesmanship, carry through a cooperative high employment plan of their own, with governmental participation reduced to a bare minimum.

The task is colossal and its accomplishment will require the best efforts of every forward-looking American. Unless business and government adopt some cooperative plan and start without delay to carry it through, there seems little hope for escape from a repetition of the unemployment calamities that followed the last war, and on a magnified scale.

OBITUARY

RECENT DEATHS

DR. LEWIS R. JONES, professor emeritus of plant pathology of the University of Wisconsin, died on March 31 at the age of eighty years.

DR. ALBERT E. EDGECOMBE, associate professor of botany at Northwestern University, died on March 30. He was forty-eight years old.

DR. RALPH EMERSON MYERS, one time professor of pharmacology and physiological chemistry at the George Washington University School of Medicine and more recently a radiologist in Oklahoma City, died on March 14 at the age of fifty-seven years.

SIR THOMAS LEWIS, F.R.S., heart specialist physician at University College Hospital, London, and honorary consulting physician to the British Ministry of Pensions, died on March 17 at the age of sixty-four years.

SCIENTIFIC EVENTS

THE ROYAL SOCIETY

THE following scientific men were nominated by the council of the Royal Society for election by the fellows of the society at a meeting that was held on March 22:

COLEBROOK, LEONARD. A member of the scientific staff of the Medical Research Council. Distinguished in the application of bacteriology to clinical medicine, he played a leading part in the practical establishment of the "sulpha" drugs, and has thrown much light on the fevers of childbirth. During the war he has directed important investigations on burns.

FARREN, WILLIAM SCOTT (Farnborough). Aeronautical engineer. Director of the Royal Aircraft Establishment. He has been associated with aeronautical research and development continuously since 1914, and has contributed greatly to advances in the science and practice of aeronautics.

FEATHER, NORMAN (Cambridge). Physicist, university lecturer. Distinguished for investigations which have added much to knowledge of the spontaneous and induced disintegrations of atomic nuclei.

GADDUM, JOHN HENRY (Edinburgh). Professor of pharmacology. Distinguished for his work on the identification and estimation of acetylcholine, adrenaline and histamine in animal tissues and for his experimental contributions to the conception of cholinergic and adrenergic nerves.

GODWIN, HARRY (Cambridge). University lecturer in botany. Distinguished as a plant ecologist, and especially for his contributions to the knowledge of the post-glacial history of British vegetation based on the pollen analysis of recent deposits.

GULLAND, JOHN MASSON (Nottingham). Professor of chemistry. Distinguished for his analytic and synthetic work in the phenanthrene group of alkaloids, and for his work in the development of the chemistry of substances of biological importance.

HARVEY, HILDEBRAND WOLFE (Plymouth). Marine biologist. Distinguished for his contributions to our knowledge of the "productivity of the sea" by coordinating the varied factors, physical, chemical and biological, which determine it.

ILLING, VINCENT CHARLES (Imperial College, London). Professor of geology (oil technology). Distinguished for his researches on the relation of texture of sediments to oil accumulation and for refinements of stratigraphical and geophysical methods applied to interpret the structure of oil-bearing lands.

INGHAM, ALBERT EDWARD (Cambridge). University lecturer in mathematics. Distinguished for his researches in pure mathematics, particularly in the theory of numbers.

KAY, HERBERT DAVENPORT (Reading). Director of the National Institute for Research in Dairying. Distinguished for his biochemical work, particularly for his investigations upon organic phosphorus compounds and the phosphatases. Recently he has applied his methods to the practical problems of dairying.

LEWIS, WILFRED BENNETT (Cambridge). Physicist, university lecturer. Distinguished both for his contributions to the investigation of the structure of atomic nuclei and also to the development of the science of electronics, with special relation to ultra-high frequency radiation.

LONSDALE, KATHLEEN (London). Physicist, Royal Institution. Distinguished for outstanding contributions to the investigation of the crystalline structure of organic compounds by means of x-ray analysis. Particularly important have been her recent researches into the fundamental mechanics of crystal structure.

MAHALANOBIS, PRASANTA CHANDRA (Calcutta). Professor of physics, Presidency College; founder of the Sta-

tistical Laboratory, Calcutta. Distinguished for his contributions both to statistical theory and to the applications of statistics, particularly to sample surveys, agriculture and population.

PEIERLS, RUDOLF ERNST (Birmingham). Professor of applied mathematics. Distinguished for his contributions to theoretical physics, particularly in the application of quantum mechanics to the electron theory of metals and other phenomena of the solid state and in the theory of the atomic nucleus.

ROBERTSON, JOHN MONTEATH (Glasgow). Professor of chemistry. Distinguished for his work on crystal structure by the methods of x-ray analysis. He has made measurements of great accuracy in this field, and has derived from them precise molecular structures, electron density distributions and inter-atomic distances of organic molecules.

ROWE, FREDERICK MAURICE (Leeds). Professor of color chemistry and dyeing. As leading dyestuffs technologist, his work has been of national importance. He has made varied and original contributions to the chemistry of dyes and intermediates.

SMITH, WILLIAM WRIGHT (Edinburgh). Regius professor of botany and Keeper of the Royal Botanic Gardens. Distinguished for his contributions to the taxonomy of Angiosperms, and especially for his monographic treatment of the genera *Primula* and *Rhododendron*.

STEPHENSON, MARJORY (Cambridge). A member of the scientific staff of the Medical Research Council. Distinguished for her biochemical researches upon the metabolism of bacteria, which, with those of her pupils during 25 years, have included work upon hydrogenase, lactic dehydrogenase and adaptive enzymes.

WALLIS, BARNES NEVILLE. Mechanical engineer. Chief of research and development of Vickers-Armstrong Ltd., Aircraft Section. He has been responsible for many new projects of design, and his work has led to secret developments which have been of great importance in the war effort.

YOUNG, JOHN ZACHARY (Oxford). University lecturer in zoology. Distinguished for his outstanding contributions to knowledge of the nerve fibre, both of its structure and function. During the war he has worked on important clinical aspects of the repair of damaged nerves.

AFFILIATION OF THE SHELL DEVELOPMENT RESEARCH CLUB WITH THE SOCIETY OF THE SIGMA XI

ON March 21, the Shell Development Research Club[1] held its annual initiation of local members and local associate members at a dinner meeting at the Hotel Claremont at Berkeley, Calif. Eighty initiates in each classification were presented to the chairman, William E. Vaughan, by the marshal, Marion D. Taylor; Mr. Vaughan then performed the brief ceremony and presented the new members to the club.

Following the initiation, the club became officially affiliated with the Society of the Sigma Xi, national honorary scientific fraternity. This ceremony was conducted by Professor George W. Beadle, of the Department of Biology, Stanford University, 1945 Sigma Xi Lecturer, who had been appointed by the society to be the installing officer. Professor Beadle's action marked the attaining of one of the principal objectives of the founders, who were 142 members and associate members of Sigma Xi on the San Francisco and Emeryville staffs of the Shell Development Company. The founders patterned their organization strictly on the same principles, qualifications and activities as the national fraternity. Sigma Xi itself was founded at Cornell University in 1886 by two groups, one of engineers and the other primarily of geologists; and it is expanding its membership beyond its one hundred and twenty-five college and university chapters to include such industrial research clubs as the present one. The object of both the society and the club is "to encourage original investigation in science, pure and applied."

Professor William Hammond Wright, of the Lick Observatory of the University of California, at Mount Hamilton, gave the address of the evening, entitled "The Carnegie Telescope of the Lick Observatory." He described this new double telescope and amplified on its use to obtain (possibly in fifty years) an accurate measure of the precession of the earth's axis. This, in turn, will enable astronomers to measure more exactly the proper motion of stars in our galaxy, and such information is essential to the understanding of celestial mechanics.

A number of distinguished guests were in attendance. The California chapter of Sigma Xi was represented by its president, Professor D. M. Greenberg, and the Stanford chapter by its vice-president, Professor O. C. Shepard. The Shell Oil Company, Incorporated, was represented by Messrs. David Heggie, F. C. Clulow, J. M. Brackenbury and A. Boultbee, and Shell Chemical by Messrs. L. V. Steck and M. Buck.

The message to the club sent by Professor Harlow Shapley, of Harvard University, president of the Sigma Xi, is as follows:

> Of high importance in the steady advance of our American culture is the respect we have individually and as a nation for scientific discoveries and for new technical applications of the fundamental creations and revelations of the past. One phase of scientific work that is of increasing significance is that represented by research in industrial laboratories. The laboratories of the Shell Development Company are taking a noble part in the science of industry. Therefore, our congratulations to the new Sigma Xi Club, which is dedicated to counterbalancing the de-civilizing tendencies of war and of international strife, with the civilizing contributions that

[1] The organization of the group was reported in the *Vortex* of December, 1944, p. 415.