he himself had taken an active share in the conduct of an experiment he would never attach his name to a paper. Whenever he published with younger men his name appeared last and there were no heart-burnings in his laboratory over that coveted first position on the title page which is of value only to those men who would otherwise remain insignificant. On rare occasions, when he felt that a young man was insincere or totally unprepared for his task he would act firmly and promptly for the good of the scientific world. For all others he was full of encouragement and appreciation, and he cherished the enthusiasm of youth because he himself retained it to the last day of his life.

Scientific meetings were always a particular source of pleasure and he played an important part in such gatherings. He himself had helped to found the Harvey Society of New York, the Society for Experimental Biology and Medicine and the American Society of Biological Chemists. He was an active or honorary member of physiological or scientific societies of Berlin, Great Britain, Edinburgh, Halle, Vienna and Brussels. During the great war he served on the Inter-Allied Scientific Food Commission as one of the representatives of this country. He was a member of the National Academy of Sciences, and a few weeks before his death was notified of his election to the Royal Society of Great Britain. He had been given honorary degrees by the Universities of Yale, Glasgow, Edinburgh and Munich.

A great buoyancy of spirit, cheerfulness, keen sense of humor and genius for friendship were Graham Lusk's chief personal characteristics. He was a prince among men, a delightful host, and in his hospitable home, either in New York or on Long Island, he entertained a succession of visiting scientists and once even the whole International Physiological Congress.

He had overcome in a surprising manner the handicap of deafness which made it difficult for him to follow general conversation and to estimate the finer modulations of his own voice. In spite of this he was a good conversationalist, an effective public speaker, always outspoken, always individual. In many ways deafness was an asset in securing him time to read and write without distraction. A tireless worker with a retentive memory he had accumulated an extraordinary knowledge of the literature and he gave it to the world, well digested, in his text-book, "The Elements of the Science of Nutrition," which appeared in four editions between 1906 and 1928. He had a sense of reverence for the good work of his predecessors and was not slow to take up cudgels in their defense. It was a pleasure to see him go into action with the full force of his own laboratory and the support of his many pupils in other institutions throughout the country. For example, in his recent controversy regarding the formation of glucose from fatty acids practically every one of his former associates published some evidence which strengthened his position. Although emphatic and fearless in dispute, he never lost the friendship of those whose theories he opposed.

Strongly imbued with the spirit of research and the highest ideals of academic culture, he began his work for the reform of medical education at the time he received his first professorship. His efforts in behalf of better compensation for professors were vigorous but only partially successful. He was a leader in the movement to develop teachers in the clinical departments of medical schools who might be capable of research work of the highest order. At first he endorsed the full-time plan for clinical teachers, believing that it was the best way to give them the opportunity to develop strong departments. Later he modified his views and opposed rigid adherence to the full-time program whenever this interfered with academic freedom. Always an ardent supporter of the freedom of faculties and the responsibility of the heads of departments, he fought any influence that he considered dangerous to the vital spirit of our universities.

The physiologists, biochemists and clinicians have lost a leader, a dear friend, a man who represented all that was best in the academic life of our country.

EUGENE F. DU BOIS

SCIENTIFIC EVENTS

THE BRITISH OPTICAL INDUSTRY

A LUNCHEON organized by the optical industry was held recently at the Holborn Restaurant, London, to introduce a number of new instruments, designed and made exclusively by British firms, for the examination of the eyes. Before last September, the London *Times* states, 80 per cent. of the apparatus used in the British optician's practice was imported from the Continent or America. The proportion has now been reduced to about 40 per cent., and it is probable that in the near future there will be a further reduction to 20 per cent. The importance of this British advance in an important scientific industry may be realized when it is stated that approximately 10,000,000 people in Great Britain wear competently prescribed glasses.

Mr. Osmond P. Raphael, chairman of the Optical Manufacturers' Association, who presided at the

luncheon, said, as reported in the *Times*, that they were met to celebrate an achievement of no mean order in the field of ophthalmic optical instruments. Their industry by its nature had an international character. It was scientific, or should at its best be scientific, and consequently must feed on the knowledge and research of mankind in general. When, however, they concerned themselves with the application of principles to specific instances they came into a realm where national characteristics had their proper place. In this realm the time had come to glory in a definitely national achievement of British optical engineering, in the matter of a refracting unit. If its father was a pioneer American instrument, its mother was British optical engineering skill. The midwife was a depreciated currency, and possibly its godparents were the key industries duty and the recently imposed protective tariffs. The instruments to be marketed would stand comparison with the finest productions of the Continent and America, and he congratulated the makers, the Ellis Optical Company.

Mr. A. E. Turville proceeded, according to the *Times*, to give a demonstration of apparatus which included the British refracting unit, the Dobson retinoscope, the Turville-Stewart ophthalmoscope, the Turville dynascope, a Tert-type drum and the Scotometer. He said that the refractor consisted of over 1,000 separate parts and had all kinds of combinations of lenses. The use of the old trial case and frame caused a certain amount of discomfort to the patient, but with the new apparatus there was no discomfort. Examination could not be carried on without apparatus, and it had been a sore point with him in the past that certain Continental or American instruments far excelled British ones or there was no British instrument in existence. All the apparatus he had used that afternoon was British made and was perfectly accurate in use and construction. The refracting unit marked a great advance in instrument design in Great Britain. He would like to urge on British designers and manufacturers that they should continue their efforts, so that very soon all our consulting rooms, hospitals and clinics would be equipped throughout with British apparatus.

THE COSMIC RAY SURVEY

PROFESSOR ARTHUR H. COMPTON, of the University of Chicago, has arrived in Mexico City to continue his study of cosmic rays on the summit of the Nevado de Toluca, 14,950 feet above sea-level.

Dr. Compton had been making measurements on Mt. Huancayo, in Peru, and previously in Hawaii, Australia, New Zealand and Panama. He will return to Chicago late in August and then join a group working in the Rocky Mountains.

Further new tests are now being made for Dr. Compton in Baffin Land, near the north magnetic pole, by Dr. D. LaCour, of the Meteorological Institute of Copenhagen. Dr. Ralph Bennett, of the Massachusetts Institute of Technology, is heading a party which has made extensive measurements in the region of Mt. McKinley, Alaska. Dr. Bennett's group is carrying on the ill-fated Alaska project which cost two lives in June. Further parties are working in South Africa, in India and the South Seas, and in Patagonia and Chile.

Dr. Ernest O. Wollan, instructor in physics at the University of Chicago, is on his way to Spitzbergen, 600 miles south of the North Pole. Using the same type of heavily-leaded electrometer now being employed by four other parties working under Dr. Compton's direction, he will make his tests at Advent Bay and at the edge of the ice-packs, at 80 degrees north latitude. Dr. Wollan will later proceed to Zurich to make further tests on the Jungfrau, where Dr. Compton worked last September.

EFFECT OF THE ECONOMY MEASURE ON THE DEPARTMENT OF AGRICULTURE

IN accordance with section 204 of the act recently passed by Congress, known as the economy bill, which was signed by the President on June 30, no person in civilian service in any branch of the United States Government who had reached the retirement age prescribed for automatic separation from the service could be continued in the service after June 30 except by executive order of the President. On June 30 there were 157 employees in the Department of Agriculture who had reached the retirement age, who were eligible for retirement, and who were subject to the provisions of the act. Of this number three were continued, namely: Professor Charles F. Marvin, chief of the Weather Bureau; Dr. Isaac M. Cline, principal meteorologist in charge of the Weather Bureau station at New Orleans, Louisiana, and Dr. William J. Humphreys, principal meteorologist, Weather Bureau, Washington, D. C.

Dr. A. F. Woods, director of scientific work, has sent in response to a request from the editor a statement in regard to the effect of the economy bill on scientific workers in the Department of Agriculture, which reads as follows:

> The professional and scientific workers in the Department of Agriculture are in hearty accord with the policy of rigid economy in expenditures of the government. They have accepted the withholding of normal salary increase without any complaint, though in many cases it means hardship.