Before the Chemical Society, London, the following lectures will be given: December 6, "The Relation between Chemical Constitution and Physiological Action," Dr. F. L. Pyman; February 21, 1918, "Recent Studies on Active Nitrogen," Professor the Hon. R. J. Strutt; April 18, the Hugo Müller lecture, entitled "The Old and the New Mineralogy," Sir Henry A. Miers.

Dr. Richard Weil, professor of Experimental Medicine in Cornell Medical College, a major in the Medical Reserve Corps and chief of the medical staff of the Base Hospital at Camp Wheeler, Macon, Ga., died of pneumonia on November 19.

Nature states that in a private letter Dr. Paul Bertrand announces the death of his father, Professor C. E. Bertrand, the distinguished plant-anatomist and paleobotanist. Dr. Bertrand was professor of botany at Lille, and lived there for the last three years of his life under German rule. Under these difficult conditions, he was still able to carry on both his university courses and his private research, as long as his health permitted.

The death is announced, on October 27, of Mr. Worthington G. Smith, of Dunstable, fellow of the Linnean Society, at eighty-two years of age and on October 24, at fifty-four years of age, of Mr. George T. Holloway, vice-president of the Institution of Mining and Metallurgy, known as a consultant metallurgist and assayer.

Mr. George Charles Crick, assistant in the geological department of the British Museum, died on October 8, aged sixty-one years.

EDUCATIONAL NOTES AND NEWS

The Probate Court has allowed the will of Mrs. Augusta E. Corbin, by the terms of which Boston University receives $555,000.

Extensive additions are to be made to the laboratories of the department of chemistry of the Rensselear Polytechnic Institute. Entirely new and complete laboratories will be constructed for quantitative analysis, for organic chemistry and for physical chemistry. Material enlargement will be provided for the food analysis and gas analysis laboratories, and new space assigned for lecture room and recitation room needs. The great increase in number of students entering for the course in chemical engineering has demanded these extensions. Work on the new construction will be started in March, 1918, at which time also ground will be broken for four new dormitories.

Dr. F. L. Pickett, formerly associate professor of taxonomy and ecology at the State College of Washington, has been made head of the department of botany at that institution to fill the vacancy in the department of botany made by the resignation of Dr. I. D. Cardiff.

Professor Walter Burton Ford has been promoted to a professorship of mathematics in the University of Michigan, and James Garret Van Zwaluwenburg to a professorship of roentgenology.

Mr. Geo. E. Crofoot has been promoted from instructor in mechanical engineering to assistant professor of mechanical engineering in the Towne Scientific School of the University of Pennsylvania.

Mr. E. G. Gaul, M.Sc., lecturer in bacteriological chemistry at the University of Manchester, has been appointed part-time demonstrator in chemistry in the university department. Mr. G. Hickling, D.Sc., has been appointed reader in paleontology and in the absence of Professor Holland, acting director of the geological laboratories.

DISCUSSION AND CORRESPONDENCE

THE MANUFACTURE OF OPTICAL GLASS IN AMERICA

To the Editor of Science: There is an obvious lesson of general interest and of importance in national welfare in the present situation concerning the manufacture of optical glass in this country. That lesson relates in principle to the injury to important manufacturing interests resulting from a large con-

sumer becoming the sole producer of a material vital to that line of manufacture. When expert scientific knowledge is involved it is well that scientific men be alive to the consequences of certain lines of activity.

Four years ago this country imported annually about half a million dollars worth of optical glass, chiefly from Schott in Jena, Mantois in Paris and to some extent from Chance in England. At the outbreak of the war the German supply ceased, while the French and English supplies were limited to that not required for war purposes. Six of the large consumers of optical glass, a government bureau and three glass manufacturers at once started experimental work in this country on the manufacture of optical glass. The entire normal demand for this material is barely sufficient to pay overhead and a modest profit to a single manufacturing concern. But two of these would-be producers have faced the very considerable development expense and brought their production to a factory basis. One of them is a large consumer of optical glass, the other a large manufacturer of plate glass.

The situation faced by the independent consumer is a difficult one. He naturally can not depend upon his largest competitor for his raw material. Neither can the plate-glass manufacturer be depended upon as a permanent source of supply since his large orders for his regular product are much more remunerative. The outlook is therefore rather dismal both for the independent consumer and for the future manufacture of optical glass in America.

Optical glass manufacture, like so many other industries newly taken over in this country, is extremely sensitive to the favor of the capitalist as well as of the scientific expert and skilled laborer. Optical glass has been successfully made in this country in small experimental batches at various times for at least thirty years back, but no one would risk the necessary capital in a business with a demand so circumscribed and a margin of profit so limited. At present a concern devoted exclusively to optical glass, booking the entire American demand might weather the return to normal trade conditions. With the business split into at least two parts, one chief producer a large consumer, another operating it as a trivial side issue, the industry is unlikely to survive.

P. G. NUTTING

PITTSBURGH,
October, 1917

A NOTE ON THE "AGE AND AREA" HYPOTHESIS

PROFESSOR DEVRIES'[1] recent endorsement of the hypothesis advanced by Willis that the range of any plant, barring barriers, depends upon the age of the species, is a most curious illustration of how uncritical a man becomes who is obsessed with a theory. The Willis hypothesis has already been satisfactorily dealt with by Sinnott[2] in the pages of SCIENCE and I wish only to add one or two brief comments.

Neither Willis nor DeVries appear to have any knowledge of or interest in the facts of paleontology, certainly the latter, since he is an evolutionist of a sort, might have selected a name for his supposed factor that had not already been used in a perfectly definite way for a process diametrically the opposite of saltation. This has all been well said by former critics and I mention it in the present connection merely as more cloth off the same piece as the adoption of the Willis hypothesis.

Regarding barriers, we are familiar with certain gross kinds such as mountain ranges and seas, but who can successfully formulate the interrelations of organisms with one another and with their environment and the less obvious but no less real barriers that result from these correlations? One is reminded of Darwin's classic explanation of the relationship between cats and red clover, in which case spinsters might prove an effective barrier to field mice and offer optimum conditions for the spread of clover.

With reference to New Zealand, a philosophic botanist would have to account for very many plant radiations of different ages and from different directions—certainly the

[1] SCIENCE, N. S., Vol. 45, pp. 641–642.

[2] SCIENCE, N. S., Vol. 46, pp. 457–459.