John Sahlberg himself was only twenty-six years old when he was appointed teacher in zoology at the University of Helsingfors. At the same institution he was professor extraordinarius in entomology from 1883 to 1918.

John Sahlberg's son is Dr. Uunio Saalas, Helsingfors (now Helsinki), an entomologist of very high standing and of international reputation.

John Sahlberg was a man of firm character and deeply interested in Christian movements and associations, especially the Y. M. C. A. and a Christian association of Finnish University students. He also was a very enthusiastic spokesman for prohibition, especially advocating it among young men. He has published and lectured on prohibition and Christian subjects.

A. G. BÖVING

SCIENTIFIC EVENTS

THE PUBLICATION OF SCIENTIFIC BOOKS IN FRANCE

THE Paris correspondent of the *Journal* of the American Medical Association writes:

The paper shortage and publishing difficulties still arouse a lively interest. M. Ducrot, in an informative article in the *Revue Scientifique* on the subject of scientific publishing in France, showed that if there was a crisis in the publication of literary works, this was particularly acute in the case of works on pure science. In fact, the elements of bookmaking have increased considerably in cost as compared to prices before the war: compositors and pressmen are paid from three to four times as much as in 1914, the price of paper is five times as great, and these factors contribute to make the cost of a book from three to four times as much as before the war. Now, the income of the intellectual classes, the only purchasers of theoretic works, has barely doubled, while the budgets of public institutions, libraries, laboratories, etc., have been greatly reduced. A book, even one that constitutes a veritable working tool, is not a prime necessity. It should not, therefore, exceed a certain price, above which it will not sell, and at the present moment, the maximum has apparently been reached.

This condition, which constitutes a veritable danger to the advance of science, is not peculiar to France. A statistical study by M. Fernand Roches in the *Correspondant* discloses the progressive decrease of the number of publications in the principal countries since 1914. Exclusive of periodicals and musical works, the figures show that a number of books published in 1918, as compared to 1917, decreased in France from 5,054 to 4,484; in Great Britain from 8,131 to 7,716; in Italy from 8,349 to 5,902; in the United States from 10,060 to 9,237, and in Germany from 14,910 to 14,743. The production in 1919 is not yet known, but it was probably less than in 1918.

It is interesting to note that the decrease in Italy totaled 2,447 books; in the United States 823; in France 570, and in England 415; but Germany, defeated and disorganized, showed a decrease of only 167 works.

So far as French medical books are concerned, statistics recently published in the *Bibliographie de la France* indicate that the number of such works, which had suffered a great decrease before the war (from 1,230 in 1910 to 721 in 1914), had again greatly declined in 1915, namely, to 202 works. A tendency to improvement was noted in 1916, and again in 1917, when 292 books appeared. However, in 1918, a new decline set in which it was believed would be accentuated in 1919, but nothing of the sort occurred and in that year 309 new books appeared.

CHEMICAL RESEARCH IN LONDON

A COMMITTEE presided over by Professor J. F. Thorpe, of the Imperial College of Science and Technology, London, has made a report recommending the creation of an All-India Chemical Service, the establishment of a central research institute at Dehra Dun, and of a similar laboratory in each province near the chief seat of industry. The broad object is to assist by scientific investigation in overcoming the difficulties and deficiencies in Indian industrial organization pointed out by the Holland Commission.

The summary in the *London Times* states that while it is the intention of Professor Thorpe and his colleagues that the research institutes should be staffed mainly by Indians, it is manifest that the universities and institutes of the country do not provide adequate training for the research work which will fall to the service. The qualifications laid down are an honor degree in the first and second class or its equivalent; a suitable training in

engineering (workshop practise and machine drawing); and one or two years training in the methods of research under a professor or teacher of a university or university institution who is competent to train in research. Sir P. C. Ray, who stands only second to Sir Jagadis Bose in eminence as an Indian scientist, in a dissentient note disapproves of the creation of yet another Indian service, and thinks the best results could be achieved by improving the teaching of chemistry in the universities. They should be encouraged to strengthen the staff of chemical teachers and to offer research scholarships. Technological institutes should be attached to each university as an adjunct to the chemical and physical departments.

The attractiveness *prima facie* to men of high scientific attainment of dependence on the universities has been shown in the last few months in the correspondence columns of *Nature*. In his introductory note to the report Dr. Thorpe, who may be presumed to have had strong leanings in the same direction when his inquiries began, is unhesitating in his conclusion that the development of chemical industries in India can only be adequately realized through the agency of an efficient Government Chemical Service. At the outset the report refers to the method, found satisfactory in England, of government subventions to research associations in the various branches of industry. But in India, with its comparatively undeveloped great natural resources, "a more intimate system of state assistance" is held to be necessary. Similarly, it is not possible at present to rely upon the Indian universities to complete the training necessary for appointment to the service, and selected students must be sent abroad under a system of maintenance agents.

It is pointed out that the formation of the service will necessitate a strengthening of the chemical departments of Indian universities and institutions. The professors of chemistry should be relieved of some of their routine work, and could then devote an appreciable amount of time to training their senior students in methods of research. The formation of a service for the purpose of industrial research does not mean that university professors should be discouraged from doing similar work. Dr. Thorpe, in his introductory note, says that while it is impossible and unnecessary to have laboratories attached to the universities fitted with full-scale apparatus, there should be attached to the chemical department in every university a laboratory of comparatively small dimensions, containing types of every kind of plant used in chemical manufacture of about one sixtieth the size of the large scale plant.

The proposed Chemical Service touches the educational service or educational institutions directly only in so far as concerns the efficient training of its recruits in research methods. For this reason it is not proposed that professors and teachers of chemistry should normally be members of the service. It would be open to the Education Department or to an educational institution to ask for a chemist to be seconded from the service if it so desires. Such chemists would retain their lien on their appointment in the Chemical Service, and could revert thereto on promotion, on their own request, or on the request of the authorities to whom their services had been lent.

NORTH AMERICAN FOREST RESEARCH

The National Research Council reports that it has published a complete summary of all of the scientific investigations upon forest problems which are now under way in the United States and in Canada as a bulletin upon "North American Forest Research." This bulletin was compiled by a committee of the Society of American Foresters composed of:

Earl H. Clapp, assistant forester, U. S. Forest Service.

Clyde Leavitt, commissioner of conservation of Canada, Ottawa.

Walter Mulford, professor of forestry, University of California.

J. W. Toumey, director of the forest school, Yale University.

E. A. Ziegler, director, State Forest Academy, Mount Alto, Penn.

In this bulletin 519 different projects for investigation are described, including the re-