

University of Miami. Abstracts of papers to be presented must be filed with the secretary, Donald C. Boughton, U. S. Regional Laboratory, Auburn, Alabama, not later than March 31.

THE second American Congress on Obstetrics and Gynecology, sponsored by the American Committee

on Maternal Welfare, will be held in St. Louis from April 6 to 10. The program will include general assemblies and individual group meetings on medical, nursing, public health and institutional administrative problems relating to the factual and scientific aspects of maternal and infant care.

DISCUSSION

A YEAR IN AN AMERICAN UNIVERSITY

It is always with the greatest of pleasure that I recall the time I spent in the United States in 1928-29 as a visiting professor of colloid chemistry in the University of Wisconsin, Madison. Madison is a charming little town lying in the midst of the golden fields of the Middle West and surrounded by numerous lakes and forests. The locality strongly resembles that of the Valdai Hills or Lake Seliger, the favorite vacation spots of the residents of Moscow and Leningrad.

Almost the whole of Madison is permeated with the life of the university, and the university grounds are the real heart of the city. There are many such towns in England and Holland, and once Germany, too, had such towns, but that was before the tempest of madness dispelled the traditions of German learning.

Particular attention was concentrated on colloid chemistry in the University of Wisconsin, and this chair was occupied in turn by a number of professors invited from other universities and even from other countries. Nowhere is this excellent form of international scientific collaboration practiced so widely as in the United States. Besides teaching, I had the opportunity, while in Madison, of engaging in certain experimental researches on various problems of electrochemistry. What especially amazes the foreigner in an American laboratory is the ability to get along with a very small service staff and with a modest supply of apparatus and reagents. The necessary orders are put through without any formalities and thanks to the high level of the American laboratory supplies industry and the fact that standard spare parts for instruments are always on sale, these orders are very easily filled. American students very quickly grasp and carry out the idea of experimental work, for they come of a people accustomed to automobiles and radios from childhood.

Another attractive feature of the University of Wisconsin was its democratic traditions and the interest its members showed in the Soviet Union. Every new person I met followed up the traditional first question, "How do you like this country?" with questions concerning the life of the Soviet Union, its organization and aims. The American does not put these questions in a general form. On the contrary, he tries

to build up a picture for himself on the basis of concrete details. I remember that when I was asked to speak on the Soviet Union at the faculty of the chemistry department the questions put to me sometimes concerned minor everyday matters, which, however, helped the audience form a tangible idea of life in the Soviet Union.

In general the year I spent in Madison is one of the most pleasant years of my life. The only thing that worried me at first was the fear that my English would be unintelligible to my students. These fears, however, were soon dispelled; as explained to me with the characteristic outspokenness of the American students, since I always made the same mistakes my hearers soon readily grew accustomed to them.

My year in Madison also gave me the opportunity to visit a number of other American universities and laboratories and to become acquainted with many prominent American chemists. In the General Electric laboratories in Schenectady I had the great pleasure of meeting Dr. Irving Langmuir, who, in my opinion, has had more influence than anybody else on the modern development of physical chemistry. Especially that field which has taken most of my attention, the study of surface phenomena, is endlessly indebted to the brilliant and versatile gifts of this scientist. I remember very well how, at the beginning of my career, I used to impatiently await every new work of Langmuir's. The last time I saw his signature under a printed text was but a few weeks ago. It stood under an appeal addressed by American scientists and writers and calling for a fight against Nazism.

At the invitation of Professor J. W. McBain, I delivered a lecture at Stanford University, amidst the cactuses and palms of California. We had a long discussion then about the structure of surface layers, but just now I should like to remember Professor McBain not only as an outstanding scientist but as a man who has given a great deal of effort to consolidating the ties between American and Soviet science. On my way back to Moscow from America I stopped in Berlin. This was in the summer of 1929. German science was still in existence then, and on the quiet streets of Dahlem people spoke of scientific theories

and new discoveries and not of killing and destruction. In the Kaiser Wilhelm Institute für physikalische Chemie, directed by the famous Friedrich Haber, I met Professor N. Freundlich, from whom we all more or less learned colloid chemistry. He invited me to remain and work awhile in Germany, but I was in a hurry to get home.

All this now seems to be a dream from long ago. Haber and Freundlich have died in exile. The Germany of to-day does not offer us joint scientific work but the destruction of our cities and the physical extermination of their populations. All our thoughts are turned to the assistance of our country. And in this fierce fight which we are waging for ourselves and for all humanity, we are glad to know that we have behind us all the might of the great American nation.

A. FRUMKIN

NEON LIGHTS

IN the December 19, 1941, issue of *SCIENCE*, there appears a note entitled "Extra Strong Heliotropic Effect of Neon Lights." The writer points out that insects have been observed to collect around neon lights to a greater extent than around "white lights." He then suggests that the "neon lights may emanate invisible rays which connect with the antennae of various insects and pull them to its source." The belief is implied that the insect eye is sensitive only to visible radiation, that is, wave-lengths to which the human eye is sensitive (approximately 3,900 to 7,200Å).

Experiments by Bertholf on the honey-bee¹ and *Drosophila*² show that in these two insects sensitivity to wave-lengths in the near ultraviolet is far greater than sensitivity to those wave-lengths visible to the human eye. The sensitivities of these insects have maxima near 3,600Å several times the sensitivity to any wave-lengths in the visible; and there is general high sensitivity between 3,000 and 4,000Å. The spectrum of neon shows a number of strong lines in this region, whereas the spectra of tungsten filament lamps, presumably the source referred to as "white lights" by the writer, is weak in this region. Even without an estimate of relative intensities one might expect that these insects, both of which are positively oriented by light, would collect in greater concentration about neon lamps than about tungsten filament lamps. It is reasonable to assume that the eyes of many other insects have spectral sensitivities similar to those of the honey-bee and *Drosophila* and would behave in similar fashion. Lacking complete knowledge on this point and with no estimate of the relative intensities of the sources, no final explanation of the writer's observa-

tion can be given, but there seems no reason to postulate that any organ other than the insect eye is involved.

It seems appropriate to call attention here to the fact that many interpretations of behavior of lower organisms have been based on the assumption that their light receptors are strictly comparable to the eyes of man. Accurate information on the photoreceptors of invertebrate organisms is more scanty than could be desired, but, nevertheless, many instances of mystifying behavior of organisms in light fields may be quite simply explained if spectral sensitivity and visual acuity are taken into account.

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GALENA IN CONCRETIONS OF POTTSVILLE AGE

THE writer is interested in the article written by Alfred C. Lane in the issue of *SCIENCE* of November 14, 1941, concerning the occurrence of galena in sedimentary rock. Lane calls our attention to the fact that sedimentary galena from Joplin, Mo., has a relatively high proportion of isotopes which may be of radiogenic origin. He urges that galenas from sedimentary formations be collected and kept for further scientific research, and the Committee on Measurement of Geologic Time be informed about it.

Near Marshallville, Ohio, in a railroad cut near that village, is an excellent exposure of the unconformity between the Mississippian sandstone and the basal Pennsylvanian, known as the Pottsville. Not far above the unconformity, in a black, bituminous, thinly laminated shale, occur numerous clay iron-stone concretions of the septarian type. These contain an association of minerals similar to that in the lead and zinc deposits of the Mississippi Valley. In addition to galena are found sphalerite, barite and pyrite. Sphalerite occurs in greatest abundance and barite is quite common. Galena is rare in occurrence and it required the cracking of large numbers of concretions to find one crystal, which is embedded in the concretion and measures about one quarter inch long and one eighth inch wide.

KARL VER STEEG

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A PURE NITROGEN NATURAL GAS WELL

WHAT is believed to be the first pure nitrogen natural gas well ever to be discovered in the United States, in so far as the writer has been able to ascertain, has been discovered at a shallow depth in eastern Wyoming, during the past season.

In the course of drilling a well for water on the

¹ L. M. Bertholf, *J. Agric. Research* (1931) 42, 379; 43, 703.

² L. M. Bertholf, *Ztschr. vergleich. Physiol.* (1933) 18, 32.