THE NATIONAL ACADEMY OF SCIENCES

PRESENTATION of the awards of the National Academy of Sciences was made at a dinner on Friday evening, November 16, at the Benjamin Franklin Hotel, Philadelphia.

CYRUS B. COMSTOCK PRIZE

Awarded every five years for the most important discovery or investigation in electricity, magnetism and radiant energy.

Prize of $3,000 for the period 1938 to 1943 awarded to Donald W. Kerst, Department of Physics, University of Illinois, Urbana, Illinois, for his pioneer work in connection with the development of the betatron and the results which he has obtained with this new and powerful scientific tool.

DANIEL GIRAUD ELLIOT MEDAL

Gold medal with certificate and honorarium for most meritorious work in zoology or paleontology published each year.

Awarded for 1941 to Theodosius Dobzhansky, Department of Zoology, Columbia University, New York City, in recognition of the high merits of his work "Genetics and the Origin of Species," second edition, published in 1941.

PUBLIC WELFARE MEDAL

Gold medal for eminence in the application of science to the public welfare.

Awarded for 1945 to Vannevar Bush, Director of the Office of Scientific Research and Development, Washington, D. C., in recognition of his outstanding service in bringing to bear the scientific and engineering talent of this country upon problems of research connected with the war effort.

THE PRODUCTION OF ELEMENTS 95 AND 96

IN reply to a wire requesting information in regard to the production of elements 95 and 96, the telegram given below has been received by SCIENCE:

The 60″ cyclotron in the Radiation Laboratory of the University of California at Berkeley has been employed to effect the transmutation of Uranium Mass 238 and Plutonium Mass 239 into elements of atomic numbers 95 and 96, respectively.

In order to accomplish this task, the instrument was completely rebuilt by the group in the Crocker Laboratory, during the summer and fall of 1944, so that nuclear particles could be accelerated to higher energies than had been previously available.

The cyclotron was put back into operation in January 1945 and initially was capable of producing deuterons and alpha particles at measured energies of twenty and forty million electron volts, respectively.

During the next few months, Uranium 238 and Plutonium 239 were bombarded with forty million electron volt helium ions.

Element 95 was found to be produced in the Uranium targets and element 96 in the bombarded Plutonium sample.

The identity of these two elements was established by their chemical and radioactive properties.

This phase of the work was done by the Chemistry Group at the Metallurgical Laboratory at the University of Chicago.

Recently, the energy of the deuterons and alpha particles has been increased to measured values of 22 and 44 million electron volts, respectively.

GLENN T. SEABORG
METALLURGICAL LABORATORY,
UNIVERSITY OF CHICAGO,
(ON LEAVE FROM DEPT. OF CHEMISTRY,
UNIVERSITY OF CALIFORNIA AT BERKELEY)

JOSEPH G. HAMILTON, M.D.
RADIATION LABORATORY,
UNIVERSITY OF CALIFORNIA AT BERKELEY

NEWS FROM ABROAD

DR. C. JUDSON HERRICK writes:

Letters have been received by several American anatomists reporting the welfare of some European colleagues. Dr. C. U. Ariëns Kappers, director of the Central Institute for Brain Research, Amsterdam, informs us that he and his staff were permitted to continue work at the institute, though under harsh conditions. They are now recovering from malnutrition, are in good health and actively at work.

Dr. Jan Jansen writes from the department of anatomy of the University of Oslo that when the university was closed in November, 1943, seven hundred students and many of the faculty were deported to German concentration camps, but they were able to begin teaching on August 1 of this year. The rector was deported to a German concentration camp in September, 1941, but returned for the formal opening of the university on September 2, 1945. They immediately matriculated 6,300 students, which is more than twice the usual number. The two professors of anatomy, Schreiner and Mohr, were arrested in September, 1941, and spent many months behind the barbed wire without trial. Dr. Jansen was active in the publication of the underground newspaper from the beginning of 1940 and in the summer of 1942 he was the only one of that staff who escaped capture and deportation. His own activities continued and he was in Oslo, underground, at the time of the German surrender. Professor Schreiner is now retiring and Dr. Jansen succeeds him as head of the department of anatomy. On his staff he has Drs. Brodal, Heier and Cammermeyer.

Professor R. C. Coker, of the University of North Carolina, has received the following letter from Professor Dr. Chr. P. Raven:

I have the pleasure to inform you that the laboratory of general zoology of the State University of Utrecht has come through the war quite undamaged.

Alas, the assistant-in-chief, Dr. J. W. de Marees van Swinderen, succumbed in a German concentration camp; one of our co-workers, J. Kloos, was shot by the Gestapo;

the other members of the staff survived the terrors of 5 years of German occupation. Fortunately, we have been able to continue our scientific activity till the autumn of 1944. Then, the lack of fuel and the termination of the supply of gas and electric current made further work impossible; moreover, on account of the continual slave-raids most of us were enforced to remain at home.

After our liberation on the 7th of May we have resumed our work as soon as possible. We are, however, very much handicapped by the fact that we have been cut from our foreign communications and did not receive any scientific papers since 1940. Therefore, may I ask you to send me as soon as possible reprints of your papers of these years? When the dispatch of printed matter from our country is allowed, I will send you my papers and those of my co-workers in return.

Dr. Leon J. Cole, of the Department of Genetics, University of Minnesota, submits the following excerpts from a letter dated at Manila, P. I., August 27, 1945, from Dr. B. M. Gonzalez, president of the University of the Philippines:

Your news about Dr. Manresa's passing[1] is quite definite. We are in contact with Mrs. Manresa and she was the one who gave us the details. The first news was that Mrs. Manresa also died, but suddenly one day she turned up at the house with her little girl. I understand Dr. Manresa was showing his papers to a Japanese soldier when another one shot him with the muzzle of the gun directly on his temple. During the days just prior to the arrival of the American troops, the Japanese went into a frenzy of burning houses, killing people, and on some occasions even raping women. While some families suffered very heavily, the total loss of life even in the City of Manila was probably under five per cent. The destruction and damage to dwellings, however, was quite extensive. A fair estimate as to values is probably 70 per cent., and the average is as low as 20 per cent. in some districts and almost 100 per cent. in others. In so far as the material prosperity brought to the Islands through a half-century of American occupation is concerned, this has been largely destroyed. Spiritual values remain very high, although the strain due to conditions of war has revealed many characters. Fortunately, this has worked both ways, and inasmuch as positively good characters usually lead to survival while otherwise to extinction, the war might still be a blessing in disguise. The atmosphere just now is quite depressing, but the Filipino character is resilient and basically cheerful, so that the gloom is not as pervading as one might be led to think. Some days ago I asked one of our elder students what the comment was of the university among them; she said that the frequent remark was that if they only did not look at the ruins the university was the same as before.

I was recalled to the service of the university, . . . , on June 28th, and proceeded immediately towards the rebuilding of the university. Classes in Manila began on August 6 and in Los Baños a few days before that. Practically all the units of the university are now open except the junior colleges in Baguio and Cebu, the School of Fine Arts, the Conservatory of Music, the College of Business Administration and the School of Public Health Nursing. These last two were more or less colleges on paper even before the war, so that their remaining closed partakes largely of this nature also. The present enrollment is 1,800 as against a normal one of about 8,000. All in all, the situation is quite satisfactory. The university is housed in a patched-up building that we borrowed from the Philippine General Hospital, as well as in some of the laboratories of the same institution that escaped total destruction. Our libraries and laboratory equipment have been destroyed to the extent of about 95 per cent. At the time I took office, we did not even have seats for students nor blackboards nor chalk. We were able to salvage a few desks, tables and chairs for the faculty, and one or two typewriters. We are now gradually building up our equipment, but the process is greatly handicapped by lack of available materials in the market, and when these are obtainable, the prices are skyhigh. I was offered, for example, some office desks ranging in price from 900 pesos to 3,000 pesos. Similar furniture before the war could be obtained for from 25 pesos to 80 pesos. We use alcohol lamps made from used tin cans in the chemistry laboratories. The price of a five-gallon can of denatured alcohol before the war was about 1.50 pesos. We bought some recently and the price was 148.50 pesos. All these prices now are in the normal currency of the country. The guiding thought in our operations is that our young people have lost so much time that we cannot afford to wait to reopen until we are better equipped. The plan is to rebuild as we go along. We are fortunate in that most of our older faculty was with the university in its early days, so that they have seen it grow from practically nothing. I was a student in Los Baños when the institution had a faculty of five, carrying a curriculum of six years with practically nothing in the way of equipment. Compared to that, we are now nabobs with our ruins. It may take some years before we reach the stage of development where we left off. We are hoping that in some features of our work there might even be a distinct advance. Times change and there is naturally a call for reorientation in some of our program of work and even in our objectives. We aim to not only make the best of a bad situation but also to capitalize in some way our very misfortunes, and because of this I trust that this suffering need not all be in vain.

Dr. Harold St. John, professor of botany at the University of Hawaii, writes that Dr. Eduardo Quisumbing, botanist of the Bureau of Science, Manila, Philippine Islands, is resuming botanical work. He received this information from Lt. (j.g.) A. R. Kruckeberg, U.S.N.R., who recently visited Dr. Quisumbing and went on a field trip with him. Dr. Quisumbing is in good health and survived the Japanese occupation, as did his wife, son, and two daughters, though he lost his son-in-law. The Bureau of

[1] SCIENCE, August 10, 1945.

Science was deliberately destroyed during the Japanese evacuation and with it the library, herbarium and his personal books and manuscripts. He now is using an office in the Department of Agriculture and Commerce in the Binondo District, Manila.

A letter has recently been received by Cyril F. Dos Passos, research associate of the American Museum of Natural History, from Jean Bourgogne, assistant au Muséum National d'Histoire Naturelle, 45 bis, Rue de Buffon, Paris Ve, France, advising him of the death of Mr. Fd. Le Cerf during the past winter, after a short illness due in part to lack of heat and insufficient nourishment. His collection and his library are now at the Muséum National d'Histoire Naturelle.

Dr. Wm. Randolph Taylor, of the University of Michigan, writes that he has received a card dated August second from the Academy of Agriculture, Dotnuva, Lithuania, reporting that Dr. V. Vilkaitis, for some time subsequent to June, 1941, was concerned with the fishery industry in the Takutsk region of Siberia, but that a report of his death had been received from his widow. Dr. Vilkaitis is known for his work on the desmids of Lithuania.

A letter received by Walter N. Bangham, director of the Plant Research Department of the Goodyear Rubber Plantations Company, San Jose, Costa Rica, from the wife of the late Dr. A. D'Angremond, formerly director of the Experimental Station of the Algemeene Vereeniging van Rubberplanters ter Oostkust van Sumatra (AVROS) brings new evidence of the horrors perpetrated by the Japanese.

The AVROS station was an outstanding institution among many great experiment stations investigating tropical agricultural problems in the Netherlands Indies. In this station studies were made of better cultural and processing practices for the rubber plantation industry. Here were first developed many of the high-yielding Hevea clones which became planted in the rubber plantations around the world. It was in this station that generative breeding of Hevea was first started. One of the outstanding libraries of tropical agriculture was maintained and a journal, *Archief voor de Rubbercultuur,* was regularly published from 1919 until the time of the occupation of Sumatra by the Japanese.

Dr. D'Angremond had himself contributed greatly to the utilization of the improved clones. He carried the institution through a very difficult period during the years of low rubber prices. He was kindly, genteel and a lover of intellect. Dr. Schmole had made many contributions to the knowledge of the behavior of Hevea clones under various conditions, and had studied tapping procedure. The other men mentioned in the letter below have had a shorter stay at the AVROS station.

Mrs. D'Angremond's letter was from Aek Pamienko (Sumatra) Camp No. 1, and was dated September 22. It said:

(Please excuse the paper, I found a spare one). First of all, are you all right? Both of you? I hope so very much, for now that the terrible nightmare is lifting you should be together. This happiness was not meant for us, my dear husband succumbed to attacks of bacillary dysentery three weeks before we heard of Peace (20 Aug.) in the most terrible of civilian camps in Sumatra, Si Ringo Ringo (Rantau Prapat), owing to there being no more medicaments. The Japs did not think it necessary that we should correspond during the whole war. Indeed we were beaten and punished if they happened to catch our secret letters, but in the last year it was impossible to communicate. So that on the 25th of August, when the first lorries came, with the first men to come to their wives, I heard that he had been buried three weeks ago. This is especially hard, nearly coming through and just before Peace to have to go. As far as I know, for we are still in a terrible muddle, he passed away very quietly.

The AVROS Proefstation is in a very bad plight, Schmole, Van Dillen, Lankert, Rockland, and Ad . . . , too, all gone. I wonder what is going to happen to us. We . . . and I hoped to work some more and then go to live somewhere where it would be possible for me to work on my stories with his critic and help. Now I think I will go to Java, where our youngest daughter was staying, and from there to go on somewhere to a better climate. At least if I can pay for it, as our finances are in a very unlucky condition, owing to all the havoc in Europe, Holland and here. I hope for the best anyway and that I may be able to earn money with my plays and books. Not about the camps! Oh, no! Once out of all this rotten business I hope never more to have to hear about anything appertaining to it. I was in eight of them, quite enough.

I hope that this reaches you. I did not know any better way of addressing it. Now that we are getting more and better food, we are all most terribly ill, owing to the refined scientific way in which the Japs regulated our hunger diet, nothing but carbohydrates and that just enough to keep you from dying but also to prevent you to live. Hunger oed . . . is universal.—Well, God bless you, dear people. I hope that I may see you some time again but am afraid that it is impossible.[2]

ANNAMARIE D'ANGREMOND

Scientific staffs of other research stations throughout the Netherlands Indies may have suffered similar fates. If this is true, it will require many years to rebuild these institutions to their former preeminence in tropical agricultural research.

[2] Blank spaces were not legible in original.—W. N. B.