marked activity in placer mining. The reduction in the run of the fish was most marked during the period between that earlier time of placer mining activity and the very recent years in which enhanced value of gold has led to a partial revival of the industry in that region.

A study of the materials in the run-off disclosed no substance inimical to the welfare of the fish, either young or old. In a recent bulletin[2] Dr. M. M. Ellis has given an analysis of the types of erosion materials and their effect on conditions of fish existence. He pointed out that in no way has erosion silt a known destructive influence but suggests that by forming a pollution blanket on the bottom and by increasing turbidity erosion silt and other suspensoids may have a critical limit. These two features were studied carefully in connection with the conditions in the Rogue River system.

Observations on the river under low-water conditions failed to reveal the presence of any continuous or impermeable layer of erosion materials which could serve as a blanket, cover fish foods or spawning grounds or in any way injure adults or young of these anadromous fish during the periods of their life history spent in the river. A further examination of the literature reveals no support for the popular opinion that sawdust, silt and other solid particles of the type found in the Rogue River can clog the gills and kill the fish by suffocation. Past experiments with such materials gave uniform evidence that natural substances are not the cause of mechanical injuries and do not clog the gills of the fish or kill the young.

To designate placer mine run-off as pollution is unjustified. While it may be called "waste" since it is discarded in the process, it contains only natural soil constituents and no foreign substances. None of the unstable materials or toxic substances which are common in domestic sewage or industrial wastes are found in the placer run-off in this valley. So long as the process remains as it now is the run-off can not pollute or contaminate the water of the river. The color comes from ferric compounds which are not harmful to the fish; it is persistent and contributes to the opacity of the water and thus to a degree offers protection against the wiles of the angler. At points where the water was too dense to see fish, it really contained very little sediment.

The very fine silt may be related to the primitive food supply of the young fish and have thus a favorable rather than an unfavorable influence. The Wisconsin survey has shown that colloidal organic material collects on minute solid particles to furnish culture media for aquatic bacteria. Very young fish from muddy waters, which I have often dissected under the microscope, have the gut well filled with mud. The organic materials ingested with the silt may be a valuable element in fish nutrition. This feature certainly deserves careful investigation.

In order to make the conclusions more convincing Dr. L. E. Griffin was secured to carry out in his laboratory at Reed College some experiments on young trout and salmon. The results of the experiments are reported in detail in Appendix B of my report just published. Young fish were held for three to four weeks in tanks through which was circulated water containing in constant suspension more than 1,000 parts per million of mud taken from placer mine areas in the Rogue River Valley. This is far more than the maximum amount (440 ppm) actually found in Rogue River water taken in at Agness. Yet the fish remained active and the percentage loss of life was less than expected among fish held in confinement. The condition of the fish was apparently slightly better than that of controls from the same source kept in tanks of clear water at the same place during the same period.

An important contribution to the report is Appendix A on "Rogue River Turbidity," by Arthur M. Swarbley, geologist in the Oregon State Department.

SCIENTIFIC EVENTS

THE NATIONAL GEOLOGICAL SURVEY OF CHINA

DR. GEORGE B. CRESSEY, chairman of the department of geology and geography of Syracuse University, has received letters from Peiping and Chungking concerning the present status of the National Geological Survey of China.

Some three years ago the headquarters of the survey were moved from Peiping to the new buildings in Nanking. With the evacuation of that city a year ago, the survey moved first to Changsha and more recently to Chungking. All the maps, rare books and type specimens in Nanking were packed for storage and are supposed to be safe. Some of the ordinary reference books, a large part of the survey's publications and the specimens under study were not shipped until the last moment and only a portion of them reached the interior in safety. Most of the apparatus thus sent away was damaged. The museum specimens were only partially packed and were either transported to the countryside outside of Nanking or left in the building. It is feared that all have been lost.

Dr. Wong Wen-hao is now at the survey headquarters in Chungking. One member is in Hongkong looking after printing arrangements, an additional

[2] U. S. Bureau of Fisheries, *Bull.* 22: 1937.

office has been established in Yunnan, and the work of the Cenozoic Laboratory in Peiping is proceeding without interruption under the direction of Drs. Weidenreich and W. C. Pei. Dr. Grabau continues his residence in Peiping, where he has completed the fourth volume on his pulsation theory.

Despite the tremendous losses which the survey has suffered, the staff has actually been increased and the work expanded. Intensive study is being given to the economic geology and mineral resources of the southeastern provinces.

THE FATE OF AUSTRIAN SCIENTIFIC MEN

THE faculty of medicine of the University of Vienna has suffered severe losses. It is estimated by the Berlin correspondent of the *Journal* of the American Medical Association that about half of the assistant professors and instructors holding office at the time the Austrian republic was absorbed by the German Reich have lost their positions. The Jewish element has been prominent among these groups, whereas but few Jews have served as full professors in recent years.

The *Journal* gives the following particulars in regard to some of the better known faculty members: Professor Egon Ranzi, ordinarius in surgery and son-in-law of the Viennese surgeon, Anton Eiselsberg, has been forced to relinquish the directorship of the university's surgical clinic and has been retired on a pension because he had been an adherent of Schuschnigg. Professors Leopold Arzt and Wilhelm Kerl, both of them "Aryans" and ranking dermatologists, met the same fate at Ranzi for like reasons. Professor Arzt, decided anti-Semite, ardent proclerical and nephew of a late archbishop of Vienna, was in custody for a short time. Ernst P. Pick, professor of pharmacology and a pupil and successor of H. H. Meyer, was forced to retire on account of being a Jew. The physiologist Arnold Durig was also retired for reasons unknown.

As is generally known, Professor Otto Loewi, of Graz, who not long ago shared the Nobel prize with Sir Henry Dale, of London, has been deprived of his post and has spent some time in custody; he has lately been given his freedom. One of the younger psychiatrists, Professor Otto Kauders, also of Graz, has been dismissed, ostensibly on racial grounds. Foremost among Viennese psychiatrists and neurologists to be affected by the new régime was Sigmund Freud, who has subsequently been received with great honors in London. Hans Hoff, one of the younger psychiatrists, has emigrated to the United States. Professor Otto Marburg, ordinarius in neurology, has been deprived of his position; Erwin Stransky has suffered a like fate.

Among the internists who have lost their positions are G. Hitzenberger, radiologist; David Scherf, cardiologist; Julius Bauer, best known for his research on endocrinology and on constitution; Karl Glaessner, Otto Porges and Walter Zweig. The last named was a pupil of Ismar Boas. The tragic death of Professor Boas has previously been reported. He had made Vienna his refuge from Nazi Germany. After the annexation of Austria he ended his life with an overdose of barbital. Still other faculty members to be dismissed were Moriz Oppenheim, dermatologist; Gottwald Schwarz, roentgenologist; Josef Friedjung, pediatrician; Richard Wagner and Heinrich Kahr, gynecologists, and Emil Froeschels, research phoniatrician. Professor Heinrich von Neumann, the otologist, a "non-Aryan," was under arrest until the successful intercession of his patient, the Duke of Windsor. There have been other suicides in addition to Professor Boas: the pediatrician, Professor Wilhelm Knoepfelmacher; seventy-four-year-old Professor Oskar Frankl, gynecologist, and the dermatologist, Gabor Nobl, known for his injection therapy of varices.

The correspondent points out that in view of the circumstances this report can make no claim to completeness. It does, however, provide an idea of how the change in the political status of Austria has affected faculties of medicine.

GIFTS TO COLUMBIA UNIVERSITY FOR SCIENTIFIC RESEARCH

GIFTS to Columbia University aggregating $403,792 have been announced. The contributions, received during the past four months, will be applied largely to the support of research in medicine, chemistry, biology and other sciences.

The Rockefeller Foundation gave $111,750, of which $100,000 will be devoted to teaching and research in neurology over a five-year period. The remainder will be utilized as follows: Research on the constitutional aspects of disease, $7,000; studies of the common cold, $2,750; research in chemical embryology, $2,000.

The Carnegie Corporation of New York contributed $64,460, of which $50,000 is for the endowment of the program of graduate medicine at the School of Medicine; $8,260 is for chemical research in the department of biological chemistry; $2,500 is for a study of young workers in a metropolitan area under the direction of the Institute of Educational Research at Teachers College; $1,550 is for research in statistical analysis; $1,500 for research on deficiency diseases in certain animals, and $650 for research in biochemistry.

The John and Mary R. Markle Foundation gave $54,800, of which $24,600 is for work at the Institute of Cancer Research on biological effects of radiation, $26,200 for establishment of a free-ranging breeding colony of primates in Puerto Rico, and $4,000 for research in the department of pathology on cell proliferation in arteriosclerosis.