Survey in the Blackfeet Reservation in northwestern Montana. The partial skeletons of five individuals were uncovered at the same time and form a most valuable addition to science. Mr. Gilmore has written a preliminary paper on the new species, published in the Smithsonian Miscellaneous Collections, and is working on the assembling of the specimen for exhibition in the National Museum.

CALIFORNIA state inspectors at San Francisco have found a new canker disease on chestnut trees recently imported from Japan. According to Dr. Haven Metcalf, the government's expert on such diseases, this appears to be of the same type as the chestnut blight which is ravaging the forests of the eastern United States, and it is possible that the new disease would be equally destructive if it became established in this country.

UNIVERSITY AND EDUCATIONAL NEWS

THE General Education Board has promised to give $750,000 to Wellesley on condition that the balance of the $2,000,000 restoration and endowment fund is completed by January 1, 1915.

IT is said that one million dollars will be received by the University of Pennsylvania from the estate of Dr. Louis A. Duhring, for many years professor of dermatology. At the time of his death on May 8, 1913, his bequest was estimated at only $400,000.

GRINNELL COLLEGE has completed its $500,000 endowment fund. Of this sum $100,000 was given by the General Education Board and the rest was raised by the college. The productive funds of the college now total more than $1,300,000. Of the amount just secured, $150,000 is to be devoted to the erection of new buildings.

THE managers of the Presbyterian Hospital, New York, have taken action reorganizing the administration of the scientific and therapeutic work at the hospital so as to provide for single responsibility for both the medical and the surgical services. Dr. Theodore C. Janeway, Bard professor of the practise of medicine in the College of Physicians and Surgeons, Columbia University, has been designated medical director of the hospital, and Dr. George E. Brewer, professor of surgery, has been designated surgical director. Dr. William G. MacCallum, professor of pathology, has been appointed pathologist at the Hospital.

PROFESSOR ALAN W. C. MENZIES, Ph.D., now head of the department of chemistry at Oberlin College, has been elected professor of chemistry at Princeton University. Other changes are Dr. Edward Gleason Spaulding, promoted to a full professorship in philosophy; and Dr. Thomas Hakon Gronwall, elected assistant professor and preceptor in mathematics.

RECENT promotions in the faculties of the University of Chicago include the following: To professorships: Harlan H. Barrows, geography; and Ernest J. Wilczynski, mathematics. To associate professorships: Elliot R. Downing, natural science (College of Education); Albert Johannsen, petrology; Walter S. Tower, geography. To assistant professorships: Storrs B. Barrett, Yerkes Observatory; Albert D. Brokaw, mineralogy and economic geology; Rollin T. Chamberlin, geology; and Arno B. Luckhardt, physiology. The new appointments include that of Oliver J. Lee to an instructorship in astronomy.

JAMES WITHYCOMBE has resigned his position as director of the Oregon Agricultural College Experiment Station.

DR. WILLIAM E. HOCKING, professor of philosophy in the University, has accepted a chair of philosophy in Harvard University.

MR. G. H. HARDY, M.A., fellow of Trinity College, University of Cambridge, has been appointed to be Cayley lecturer in mathematics, and Mr. A. Berry, M.A., fellow of King's College, a university lecturer in mathematics.

DISCUSSION AND CORRESPONDENCE

MINERAL NOMENCLATURE

THE need for revision of mineral nomenclature has been recently emphasized by Professor Austin F. Rogers, of Stanford University.[1] While I agree in the main with the

[1] *Proc. Amer. Phil. Soc.*, 52, 606–615, 1913.

views he expresses, it seems to me that his plan of treatment of isomorphous series is likely to complicate rather than simplify matters. Professor Rogers proposes that minerals be named by the predominant molecule of the isomorphous series, that isomorphous admixtures be indicated by adjectives, and that chemical prefixes be restricted to artificial substances. It would appear to me preferable to have mineral names apply to the isomorphous series as a whole, and, in most cases, to use chemical prefixes for end-members of series, whenever it is desired to discuss their relations.

The difference between these methods can best be brought out by citing a few examples. For instance, according to Rogers' plan the term carnotite would apply only to a (theoretical) potassium end-member of the isomorphous series of double uranyl vanadates, tyuyamunite to the calcium end-member. Specimens in which both are present would have to be called calciferous carnotite, if potassium predominated, and kaliferous tyuyamunite if calcium predominated, and indeed an analysis would be necessary before the material could be correctly named at all. According to my plan the name carnotite would apply to the isomorphous series itself, and could then continue to be used by laymen—miners, dealers, newspaper writers—to whom the exact composition is of no significance, to describe any sample of the mineral; while the compound names calcio- and kalio-carnotite would be used by the specialist discussing the composition of a given specimen, or its relations with other minerals.

The first plan would also do away with a number of well-known, useful, mineral names—with axinite, columbite and wolframite for instance, because they are made up of iron and manganese end-members—and, in general, with every name of a mineral as soon as it is discovered to be an isomorphous mixture. It would further require the introduction of two new names, for the end-members, in most cases. According to the second, on the other hand, advance of knowledge would not necessitate either the discarding of established names, nor the introduction of wholly distinct, independent, arbitrary ones, but only the addition of appropriate chemical prefixes, yielding ferro- and mangano-axinite, ferro- and mangano-columbite, etc. Some of these compound names have already been introduced, and have proved very useful in discussions of the relationships of the minerals; and they can cause no ambiguity so long as it is definitely understood that they apply to end-members of series only. Natronorthoclase in the sense of orthoclase containing sodium replacing part of the potassium, cobaltocalcite in that of calcite containing a little cobalt, etc., would, however, have to be dropped (as also recommended by Rogers).

In the few cases where the end-members of a series are common, well-known and well-characterized minerals, convenience may demand that independent names be retained as synonyms of these compound ones. Thus while wolframite remains the name for the isomorphous mixtures of iron and manganese tungstates, ferberite and hübnerite may at times be used instead of ferro- and manganowolframite, since they are sufficiently characteristic to be recognized by miners, dealers and beginning students. Yet I have found that practically every mineralogist, when asked what ferberite is, will reply "wolframite high in iron" rather than "iron tungstate." So, even if the distinct names are retained in this case the compound chemical ones had better be used synonymously with them.

My suggestions are then, in short, that when a mineral is discovered to be an isomorphous mixture of two (or more) components the species name shall be regarded as a group name, representing any and all members of the series; that the end-members in general shall be designated by chemical prefixes applied to the species name; but that if the end-members are so distinct, characteristic and well known that they can be thought of independently, and already have separate names, that these names be retained as synonyms of the compound, chemical, ones. If this plan should be systematically applied it would simplify mineral nomenclature with a minimum of

change from existing conditions, apparently a highly desirable result. EDGAR T. WHERRY

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THE WELLESLEY FIRE

TO THE EDITOR OF SCIENCE: The article of Professor Caroline B. Thompson entitled "The Wellesley Fire" stated that "the more important losses to physics are lantern slides, a collection of crystals, a unique collection of Nicol prisms. . . ." The lantern slides, although a useful adjunct to the apparatus, represented an inconsiderable part of the total loss. It is true that it will be difficult to duplicate the larger crystal sections and that the Nichol prisms, although by no means forming a "unique collection," were unusually good for a college of liberal arts as indeed was the entire equipment.

In a loss amounting in the aggregate to many thousands of dollars it is idle to enumerate particular items, but it may be noted that the department was especially fortunate in its equipment for the study of advanced optics and electricity. The apparatus included a commercial photometer, a large optical bench for the study of interference and diffraction effects, a Michelson interferometer, Lummer plate spectroscope, polariscopes, polarizing microscopes, Frick polarimeter, apparatus for the Zeeman effect, etc. Recently considerable time had been devoted to developing an experimental lecture course in "Electric Oscillations." To bring the equipment again to the same degree of efficiency will be the work of years. LOUISE SHERWOOD MCDOWELL

WELLESLEY COLLEGE

SCIENTIFIC BOOKS

Across Unknown South America. By HENRY SAVAGE-LANDOR. Two volumes. Boston, Little, Brown & Company. 1913. Pp. xxiii + 377 and xvi + 439, illustrated.

A map given at the end of the first volume shows that the author traveled extensively in various parts of South America, but it is not clear which part of that continent he regards as unknown. From Rio he went to S. Paulo, and thence to Araguary in western Minas by railway. From there to the city of Goyaz he traveled a much used road. From Goyaz he went westward on the road leading to Cuyabá. That road is not only much traveled and well known, but is shown on most maps of Brazil, such as Stieler's hand atlas and Baron Homem de Mello's atlases of Brazil, 1882 and 1909. There is even a telegraph line connecting the city of Goyaz with the city of Cuyabá. Francis de Castelnau made the trip in 1844, and his account of it is given in detail in the second volume of his "Expedition dans les parties centrales de l'Amérique du Sud," pages 218–282.

At Capim Branco, near Cuyabá, the author abandoned the main road and struck out across country by compass. The various disagreeable experiences off the main road were such as one would naturally expect, whether traveling in the interior of Brazil or in the interior of Pennsylvania. Little wonder that his men objected. This wandering about through the woods seems to have been regarded as exploration of an unknown region, though it is to be noted that he found farmers living there, and that the names of the streams were known to his companions.

After a few days in this "unknown" region he came out in the road leading from Rosario to Diamantino, and near the latter place took a canoe, without the necessary outfit, and descended the Arinos and Tapajos.

Here again he seems to regard the region as unknown. But the Arinos and Tapajos, in spite of their many and difficult falls and rapids, have been navigated constantly for more than a hundred and fifty years. Father Ayres de Cazal in his "Corografia Brazilica," published at Rio in 1817, says (Vol. I., p. 261) that in 1747 Captain João de Souza descended to Pará by way of Rios Arinos, Tapajos and Maranhão, and returned by way of the Madeira with canoes laden with European goods.

Dr. Mello Moraes in his "Corografia historica do Imperio do Brasil," Rio, 1859, 486, speaks of the voyage of João de Souza in 1747, but adds that Leonardo de Oliveira descended that river in August, 1742.