

## NOTES AND NEWS

The American Geologist, which in 1905 was merged with Economic Geology, now appears in a new garb, The Pan-American Geologist. This monthly journal devoted to speculative geology, constructive geological criticism and geological record is edited by Charles Keyes, Des Moines, Iowa. The associated editors in this enterprise are Edward W. Berry, Baltimore, Md.; Eliot Blackwelder, Cambridge, Mass.; Henry S. Washington, Washington, D. C.; and Gilbert D. Harris, Ithaca, N. Y. The first issue, volume XXXVII, No. 1, appeared in February, 1922.

We regret to note the death of Dr. John Casper Branner, the distinguished geologist, after whom the mineral brannerite was named. Dr. Branner died on March 1 at the age of 71 years. At the time of his death he was president emeritus of Leland Stanford University.

Through the generosity of Miss Minns the Boston Society of Natural History has been able to install in its Museum a gem collection of precious and semi-precious stones found in New England. The collection at present is represented by 26 rough crystals and 151 cut gems and includes tourmaline, beryl, aquamarine, amethyst, topaz, beryllonite, quartz of various colors and phenacite.

Arrangements have been effected whereby the Optical Society of America, co-operating with the National Research Council and the Apparatus Makers Association, is to add to its journal a section on scientific instruments. The enlarged journal is to be published under the title *Journal of the Optical Society of America and Review of Scientific Instruments*, and will be issued monthly, beginning with May, 1922.

Professor Theodor Liebisch, late professor of mineralogy at the University of Berlin, died in Berlin on February 9, after a protracted illness. From 1890 to 1900 he was professor of mineralogy at the University of Göttingen. He then accepted the call to the University of Berlin and served there until 1920 when he retired from active work. He was the author of many books, his most important being "Grundriss der Physikalischen Krystallographie."

## ABSTRACTS—MINERALOGY

AN INTERESTING OCCURRENCE OF SECONDARY RUTILE IN THE MILLSTONE GRIT. H. W. GREENWOOD. *Naturalist*, 1917, 244.

Minute crystals of rutile were found lining iron-stained cavities in the rock near Bollington. They appear to have been formed by the alteration of titaniferous biotite. Primary rutile is also present, and octahedrite was noted on leucoxene.  
E. T. W.

METEORITES WHICH FELL AT BOGUSLAVKA, 220 KILOMETERS NORTH OF VLADIVOSTOCK. HELGE BACKLUND. *Geol. Fören. Förh.*, 39, 105, 1917. [Swedish.]

On October 18, 1916, at 11.47 A.M. two iron meteorites fell 6 km. north of Boguslavka, weighing respectively 199 and 57 kg. They are now in the geological museum in Petrograd. These are the largest iron meteorites ever seen to fall, and in fact only the 11th instance of irons seen. They are cubic kamacites, without

Widmanstätten figures, resembling the Braunau iron in this and in the nickel content, which is slightly over 5% in both.  
E. T. W.

RECENT INVESTIGATIONS ON HARDNESS. A. ROSIWAL. *Mitt. Wiener Min. Ges.* 1917, No. 80, 69-70; thru *Neues Jahrb. Min. Geol.* 1919, Ref. 125-126. The measure of hardness is taken as the number of meter-kilograms of work necessary to grind away 1 cu. cm. of the mineral tested. The grinding was done under standardized conditions in every case. Values obtained were:—corundum, (aver.) 45,000; topaz (110) 6,280; quartz (0001) 5,250; orthoclase  $\perp$  (001) and (010) 2,000; (010) 1,395; (001) 947; apatite (10 $\bar{1}$ 0) 322; calcite (aver.) 202; halite (111) 109; talc 49.6.  
EDW. F. HOLDEN.

AN APPARATUS FOR MEASURING COLOR. A. v. HÜBL. *Phys. Z.* 18, 270-275, 1917; thru *Neues Jahrb. Min. Geol.*, 1919, Ref. 127. Three color filters give red, green, and blue light, the intensity of which may be varied. The object whose color is to be measured is compared to the color resulting from combinations of these filters.  
E. F. H.

FOUR COMPONENT SYSTEMS. H. E. BOEKE. *Z. anorg. allg. Chem.* 98, 203-222, 1916; thru *Neues Jahrb. Min. Geol.* 1918, Ref. 122-123. The author discusses the possibilities of composition in a cooling four-component melt.  
E. F. H.

THE HARDNESS OF METALLIC ALLOYS. P. LUDWICK. *Z. anorg. allg. Chem.* 94, 161-192, 1916; thru *Neues Jahrb. Min. Geol.* 1918, Ref. 11.

The hardness of many alloys was determined, both when they had been chilled and when annealed. Relations between hardness and atomic concentration were not observed.  
E. F. H.

THE CHANGE, CAUSED BY ISOMORPHOUS MIXTURES, IN THE ANGLE (001)  $\wedge$  (010) OF PLAGIOCLASE. F. RINNE. *Centr. Min. Geol.* 1916, 361-363.

It is shown that the straight line relation between chemical composition and the value of the angle (001)  $\wedge$  (010) in the plagioclases does not hold at other than ordinary temperatures, but is represented by a curved line, as with other angles at room temperatures.  
E. F. H.

THE ABSOLUTE SYSTEM OF COLORS. W. OSTWALD. *Z. phys. Chem.*, 12, 129-142, 1916; thru *Neues Min. Geol.*, 1917, Ref. 1-2.

Ostwald classifies colors upon the three-fold basis of hue, purity, and brightness. This system may be applied in the description of mineral colors.  
E. F. H.

SIMPLE GLIDING IN TIN AND ITS CHANGE OF CONDITION AT 161°. O. MÜGGE. *Centr. Min. Geol.* 1917, 233-239.

A study of the behavior of the twinning lamellae of tin. When heated to its melting point the form stable above 161° is crystallographically very similar to that of tetragonal tin of ordinary temperatures.  
E. F. H.

INVESTIGATIONS OF A ZONALLY COLORED TOURMALINE CRYSTAL. HERM. TERTSCH. *Centr. Min. Geol.* 1917, 273-289.

This paper is a study of the development of the faces during the growth of a tourmaline crystal as revealed by the form of the differently colored zones.  
E. F. H.

CALCITE CRYSTALS WITH CURVED FACES. G. AMINOFF. *Geol. Fören. Förh.*, 39, 664-670, 1917. [Swedish.]

A specimen of crystallized calcite from Clausthal is remarkable in showing large faces of a rhombohedron near (0.13.13.8), with greatly curved faces. Previous work on crystals with curved faces, made possible by the introduction of the 2-circle goniometer, is reviewed. The features shown by these faces and their reflections indicate them to be transition faces. E. T. W.

THE SIMPLEST PATHS OF THE ATOMS DURING GLIDING IN HEMATITE AND CORUNDUM. A. JOHNSEN. *Centr. Min. Geol.* 1917, 433-445.

The paths of the atoms in gliding along (100) and (111) are described.

E. F. H.

ARTIFICIAL GLIDING IN RUTILE. A. GRÜHN and A. JOHNSEN. *Centr. Min. Geol.* 1917, 366-374.

Rutile crystals were packed in sulfur powder, and under a pressure of 10,000 to 30,000 atm. gliding along (101) was produced. A comparison of this and the natural gliding in rutile is given. E. F. H.

NEW MINERAL OCCURRENCES IN THE STEIERMARK. ALOIS SIGMUND. *Mitt. Naturw. Ver. Steiermark* 53, 245-246, 1916/17; thru *Neues Jahrb. Min. Geol.* 1919, Ref. 32.

Occurrences of limonite and hematite from Frohnleiten; cobalt minerals from the Neualpe Schladming; and contact twins of cerussite, twinning plane (110), in a muscovite schist from Kalteneegg, Vorau. E. F. H.

THE OCCURRENCE OF THE RARE MINERAL MONAZITE IN THE MILLSTONE GRIT OF YORKSHIRE. A. GILLIGAN. *Naturalist*, 1917, 87-88.

In a garnetiferous layer of rock at Cragg Hill quarries, Horsforth, grains of rutile, zircon, tourmaline, and monazite were discovered. The last was identified by its absorption spectrum. It was subsequently found at several other localities.

E. T. W.

STUDIES ON GYPSUM TWINS FROM THE NEOCOMIAN CLAYS OF THE VICINITY OF BRAUNSCHWEIG. E. STOLLEY. *10. Jahresber. Niedersächs. geol. Ver., Hannover, Geol. Abteil. Naturhist. Ges. Hannover* 1917; thru *Neues Jahrb. Min. Geol.* 1919, Ref. 149-150.

Crystals from several localities show contact twins with the twinning plane either (100) or (101). They contain a large amount of clay and limonite inclusions.

E. F. H.

A NEW OCCURRENCE OF KIESERITE CRYSTALS. H. GRANDINGER. *Centr. Min. Geol.* 1917, 49-51.

Four new forms, w (011), m (010), z ( $\bar{1}12$ ) and s ( $\bar{7}74$ ) were found on clear white crystals of kieserite from Hildesheim. E. F. H.

THE CHANGE IN THE CRYSTAL ANGLES OF RELATED SUBSTANCES, CAUSED BY INCREASE IN TEMPERATURE. II. F. RINNE AND R. GROSSMAN. *Centr. Min. Geol.* 1917, 73-82.

On heating to 500° diopside and hornblende show similar changes in the crystal angles and axial ratios. For diopside from the Piedmont; at 20°  $a : b : c = 1.09213 : 1 : 0.58931$ ,  $\beta = 74^\circ 10' 9''$ ; at 500°  $a : b : c = 1.08762 : 1 : 0.58604$ ,  $\beta = 74^\circ 3' 57''$ ; for hornblende from Monte Somma; at 17°  $a : b : c = 0.54826 : 1 : 0.29377$ ,  $\beta = 73^\circ 58' 12''$ ; at 500°  $a : b : c = 0.54766 : 1 : 0.29333$ ,  $\beta = 73^\circ 52' 38''$ . E. F. H.

INTERGROWN CARLSBAD TWINS OF SANIDINE FROM LAACHER SEE. R. BRAUNS. *Neues Jahrb. Min. Geol.* 1917, 45-49.

Small transparent sanidine crystals occur in druses in cavities of an altered alkali syenite. Besides parallel groupings of the crystals, there are interpenetrating Carlsbad twins, in which  $\gamma$  is greatly developed. The feldspar is probably of pneumatolytic origin. E. F. H.

PREHNITE FROM ADAMS SOUND, ADMIRALTY INLET, BAFFIN'S ISLAND, FRANKLIN. H. SIMMERSBACH. *Z. prakt. Geol.* 25, 1917, 139-141; thru *Neues Jahrb. Min. Geol.* 1919, Ref. 276-277.

A prehnite high in iron ( $\text{Fe}_2\text{O}_3=6.58\%$ ) occurs in calcite-quartz veins with galenite and pyrite. Sp. gr.=2.924. E. F. H.

THE CAUSE OF THE STEEL-LIKE LUSTER OF ILVAITE. O. MÜGGE. *Centr. Min. Geol.* 1917, 82-84.

Thin films of goethite, resulting from alteration of the ilvaite, give it this luster. E. F. H.

CONTRIBUTION TO THE MINERALOGY OF COLOMBIA. MAX BAUER, *Centr. Min. Geol.* 1916, 431-437.

This paper is a review of a work published in 1915, "Contribucion al Estudio de los Minerales de Colombia" by R. L. Codazzio of the Univ. of Bogota. Descriptions are given of the emerald deposit of Muzo; of large pseudomorphs of chromite after garnet, with pitch-blende, tourmaline, mica and orthoclase in a contact zone between pegmatite and gneiss at Arboledas; and of concretions in the sandstone of Bogota, containing at different localities wavellite of several varieties, vivianite, ludlamite, and dufrenite. E. F. H.

PRECIOUS STONES IN THE URALS. C. W. PURINGTON. *Mining Mag.* 15, 24-5, 1916; thru *Min. Abst.* 1, 131, 1921.

This paper describes the emerald mines of the Great Rift River, and the mineral occurrences in the Ilmen Mts. and near Zlatoust. E. F. H.

CHEMICAL ANALYSIS OF PICKERINGITE FROM OPÁLBÁNYA. V. ZSIVNY. *Ann. Hist.-Nat. Musei Nationalis Hungarici* 14, 454-6, 1916; thru *Min. Abst.* 1, 212, 1921.

In this pickeringite,  $[\text{Al}_2\text{Mg}(\text{SO}_4)_4 \cdot 22 \text{H}_2\text{O}]$ , 4.04%  $\text{Fe}_2\text{O}_3$  replaces some alumina, and a little MgO is replaced by FeO and CaO. E. F. H.