CHEMICAL PROPERTIES: A hydrous vanadyl vanadate, $2V_2O_4.V_2O_5.\ 8H_2O$. Analyses: V_2O_4 53.1-50.9, V_2O_5 25.7-29.5, UO_3 0.5-0.11, H_2O 20.7-19.4. (Recalculated after deduction of impurities).

PHYSICAL AND OPTICAL PROPERTIES: Color black. Opaque, compact.

OCCURRENCE: Found as a replacement of wood and as a cement in sandstone at the Jo Dandy and other mines, Paradox Valley, Montrose Co., Colorado. Associated with gypsum, pyrite, tyuymunite, limonite and sometimes pascoite.

DISCUSSION: Apparently new but its nature does not permit the accurate determination of its composition or properties. Apparently differs from alaite in the amount of water, stage of oxidation of some of its vanadium and some of its physical properties. The name is an unfortunate choice since the mineral is probably not an oxide of vanadium but a vanadyl vanadate. W. F. F.

CLASS: SILICATES. DIVISION: $RO:R_2O_5:SiO_2:H_2O = 5:1:5:2$.

Chapmanite.

T. L. WALKER: Chapmanite, a new hydrous ferrous silicoantimonate, from South Lorrain, Ontario. *Contr. to Canadian Mineralogy*, p. 5, (1924).

NAME: In honor of the late Prof. E. J. CHAPMAN, Professor of Geology, University of Toronto.

CHEMICAL PROPERTIES: A hydrous silicoantimonate of ferrous iron, $5FeO.Sb_2O_5.\ 5SiO_2.2H_2O$. Analysis: FeO 33.91, Ni 0.36, Co 0.03, Cu 0.17, Bi 0.20, As 1.28, Al_2O_3 0.28, SiO_2 28.28, Sb_2O_5 31.65, H_2O 3.46. Sum 99.62.

PHYSICAL AND OPTICAL PROPERTIES: Finely divided, soft. Color green. Sp. Gr. 3.58. Optically negative (?). $2V$ small or moderate. $\alpha = 1.85$, $\gamma = 1.96$. γ parallel to the length and α normal to a flat face.

OCCURRENCE: At the Keeley Mine in South Lorrain near Cobalt, Ontario, intimately mixed with silver.

DISCUSSION: Distinct from the other known silicoantimonate, långbanite, and not closely related to any other known mineral. W. F. F.

NOTES AND NEWS

STROMEYERITE: YELLOW PINE MINE, BOULDER CO., COLORADO. WILLIAM P. HEADDEN, *Colorado Experiment Station.*

The physical properties of this sample are those usually given for the mineral except that it shows only a slight degree of iridescence. It forms a layer of varying thickness covering a mass of zinc blende and galena. The locality is new, so far as I know, although the mine is an old one. This sample was found by parties who were searching for new bodies of ore. Their efforts were a failure. My information is that only a small amount of this ore was found. The Colorado localities given in Dana's Mineralogy for this mineral are: The Yankee Girl Mine, Ouray County, and The Black Prince Mine, Summit County. These localities are old and the mines closed.

This sample is massive and apparently perfectly homogeneous, but it contains a considerable amount of zinc and lead. No zinc blende or galena could be detected.

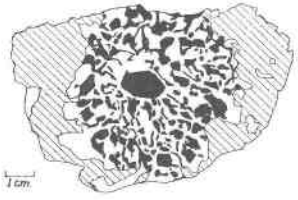
in the material analyzed, even when broken into very small pieces. The composition is as follows:

			Ratios
Ag	48.64	.4509	
Zn	3.28	.0502	
Pb	1.53	.0073	1.98
Cu	30.64	.4819	
Fe	.20	.0036	
S	16.23	.5006	1.00
	100.52		
Specific gravity	6.1271		

GRAPHIC INTERGROWTHS OF QUARTZ AND BLACK TOURMALINE FROM MAINE.—WALTER H. NEWHOUSE AND EDW. F. HOLDEN. *Massachusetts Institute of Technology and University of Michigan.*

During the summer of 1922 the writers made a trip through the Maine gem district. The gem minerals mentally associated with that region were not at all abundant, for previous visitors had rather thoroughly collected them. Nevertheless some interesting specimens were seen, among them remarkable intergrowths of black tourmaline with quartz. These seemed worthy of a short description.

Bastin[1] briefly mentions such intergrowths as occurring at Auburn, Paris and Poland. Quartz-muscovite and the ordinary quartz-feldspar graphic intergrowths were also mentioned, and were seen on our trip. Lacroix[2] has figured a similar tourmaline-quartz intergrowth from Madagascar.



Tourmaline-quartz intergrowth. Black, tourmaline; white, quartz; shaded, feldspar. ½ natural size.

We noted these intergrowths at two localities, Mt. Apatite in Auburn, and Mt. Rubellite in Hebron. Those from Hebron were the better. The dark intergrowths are circular, up to 6 cm. in diameter, presenting a striking contrast to the creamy white feldspar-quartz rock in which they occur. The boundary between quartz-feldspar and quartz-tourmaline intergrowths is very abrupt. In the center of the latter intergrowths there is usually a large black crystal of tourmaline, about which are grouped smaller crystals, while anhedral quartz fills in the remaining space.

[1] Edson S. Bastin. *U. S. Geol. Survey, Bull.* **445**, 54, 57, 69, 80, (1911).
[2] A. Lacroix. *Minéralogie de Madagascar.* **I**, plate 20, fig. 8, (1922).

The tourmaline crystals are so arranged that the *c*-axes are nearly parallel. Occasionally tourmaline crystals of an intermediate size are grouped at a distance from the large central crystal, like satellites. It would seem likely that the feldspar and quartz crystallized out first, followed by the quartz and tourmaline, the process ending in the formation of the large central crystal. The accompanying figure is a sketch of one of the intergrowths.

On invitation of the Departments of Geology and Mineralogy of Yale University, the next annual meeting of the Mineralogical Society of America will be held at New Haven, Connecticut, in conjunction with that of the Geological Society of America and other affiliated societies. The exact date has not been determined, but will be on or about December 29th.

The Field Museum of Natural History, Chicago, has been given a trust fund of $25,000 by Julius Rosenwald, of Chicago, to be used by the museum without restrictions.

The March issue of The American Mineralogist will contain the proceedings of the fifth annual meeting of the Mineralogical Society, held at Ithaca, New York, on December 31. The presidential address and short abstracts of all papers presented will be found in that issue.

Dr. Horace L. Wells, emeritus professor of chemistry at Yale University and for forty years on the faculty of the Sheffield Scientific School, died on December 19, in his seventieth year. Dr. Wells made many mineral analyses and "wellsite" was named in his honor.

Daniel S. Martin, a well known mineralogist and former professor of geology in the Rutgers Female College and in the College for Women at Columbia, S. C., died at Brooklyn, at the age of 83 years.

Professor W. A. Tarr of the University of Missouri and one of the recently elected Councilors of the Mineralogical Society of America, delivered at Cambridge, England, five lectures to the class of economic geology on the copper, lead and zinc deposits of the United States.

It has been officially announced that the metric system will be used exclusively in the Dutch East Indies, by which Amsterdam pounds and piculs will be abolished. Heretofore the two systems have been functioning side by side, but it is now believed that experience shows that the metric system is preferable.

The means for future production of oil from government reserves of coal and oil shale was the subject of a conference recently held at the Interior Department by technologists of the Navy, the Bureau of Mines and the Geological Survey. A research program to aid the commercial development of processes by which oil may be obtained from oil shales, lignite and other coal is being planned by the Bureau of Mines.

Dr. Felix Tannhauser, professor of mineralogy and geology at the Technische Hochschule and the University of Berlin, died on December 2.

After having heard representatives of the Geological Survey, the Bureau of Soils and others concerned, the Committee on Mines and Mining of the House of Representatives is expected to report favorably the Sheppard bill, authorizing an expenditure of $500,000 for prospecting and research looking to the development of domestic potash resources.

ABSTRACTS

BAUXITE ASSOCIATED WITH SIDERITE. ERNEST F. BURCHARD. *Bull. Geol. Soc. Am.*, **35**, 437-448 (1924).

A new bauxite field occurring as a belt of separate deposits 3 to 5 mi. wide and 150 miles long, extending thru 10 counties, has been found in N.E. Mississippi. Associated with the bauxite are lenticulat masses of siderite, 6 to 20 in. thick, which alter easily to limonite. A large proportion of the Miss. bauxite contains so much Fe_2O_3 and SiO_2 that it is considered low to medium grade compared with bauxite from other localities. Al_2O_3 (bulk) 35-45%; Fe_2O_3 5-35%; SiO_2 10-30%. W. F. H.

MINERALOGY AND PETROGRAPHY OF FOSSIL BONE. AUSTIN F. ROGERS. *Bull. Geol. Soc. Am.*, **35**, 535-556 (1924).

Silicified bone is exceedingly rare, only 3 were found among 300 examined. Fossil bones, generally, consist almost entirely of the amorphous mineral collophane, $3Ca_3(PO_4)_2.nCa(CO_3)(H_2O)_x$, which is also the main constituent of phosphate rock. n has the limiting values of 1 and 2 and x is also variable. Ca is partially replaced by Fe, Al, and Mg and (CO_3) by F, O, and (SO_4). Index of refraction, 1.573-1.621. The associated minerals (usually cavity fillings) include quartz, opal, chalcedony, calcite, dolomite, aragonite, barite, pyrite, dahllite and wavellite. W. F. H.

CONTACT METAMORPHISM AT BINGHAM, UTAH. WALDEMAR LINDGREN. *Bull. Geol. Soc. Am.*, **35**, 507-534 (1924).

As a result of contact metamorphism, extending from a few hundred to 2000 feet from the igneous mass, the original siliceous limestone of the Yampa and Highland Boy formations, gained SiO_2, S, iron, magnesia, alumina and soda, while CO_2 and lime have been carried away. The metamorphism was accompanied by the introduction of FeS_2, $CuFeS_2$, and other sulfides, altho the main ore deposits were formed at a later stage. The volume of the limestone has remained approx. constant. W. F. H.

A NOTE ON THE LANCASTER GAP MINE, PENNSYLVANIA. T. C PHEMISTER. *J. Geology*, **32**, 498-510 (1924).

The nickel deposits occur mostly at the contact of mica schist and amphibolite Ascending solutions, it is argued, formed biotite by the replacement of silicates. Later solutions carrying S, Fe, Cu, CO_3 and Ni reacted with the silicates and sulfides were produced. The biotite was especially susceptible to replacement. W. F. H.