OCCURRENCE: Piercing crystals of mendipite from Higher Pitts, Mendip Hills.
DISCUSSION: A well defined species. E. T. W.

CLASS: HALIDES. SUB-CLASS: HYDROXYHALIDES. DIVISION: R″:CL:(OH) = 3:2:4.

Diaboleite.

L. J. SPENCER and E. D. MOUNTAIN, *op. cit.;* this mineral, pp. 78-80.

NAME: Lacking sufficient material for a more complete investigation, which might throw light on the boleite problem, is named from the Greek *dia,* apart, and the name *boleite.* Pronunciation presumably diabole′-ite.

CHEMICAL PROPERTIES: *Formula,* $2Pb(OH)_2.CuCl_2$ or $CuPb_2Cl_2(OH)_4$. Theory Pb 67.2, Cu 10.3, Cl_2 11.5, O 5.2, H_2O 5.8, sum 100.0%. Analysis by E. D. M. (on 0.12 g.) gave Pb 66.93, Cu 10.31, Cl_2 10.89, O 5.29, H_2O 6.14, sum 99.56%. Analyzed like the preceding mineral. Qualitatively resembles the latter, but does not decrepitate.

CRYSTALLOGRAPHIC PROPERTIES: *System,* tetragonal; $c = 0.95$; angle 001:101 = 43½°. Habit, tabular with the forms *c* (001), *a* (100), *e* (101), and *o* (307); crystals poor, barely 1 mm. across. Cleavage perfect on *c*.

OPTICAL PROPERTIES: Refractive index by prism method 1.98. Uniaxial, —. Marked dichroism with ω deep blue, ϵ, very pale blue.

PHYSICAL PROPERTIES: Color, bright sky blue; luster, brilliant; streak, pale blue. Brittle; H. = 2½. D.18/4 = 6.412.

OCCURRENCE: Intimately admixed with chloroxiphite.

DISCUSSION: Distinctness seems probable, but relationship to the boleite group is obscure. E. T. W.

REDEFINITIONS OF SPECIES

CLASS: HALIDES. SUB-CLASS: OXYHALIDES. DIVISION: R″:Cl:O = 3:2:2.

Mendipite.

GLOCKER, 1839; new data furnished by SPENCER and MOUNTAIN, *op. cit.,* pp. 70-75.

CHEMICAL PROPERTIES: Accepted formula firmly established by new analysis on pure material (E. D. M.): Pb 85.87, Cl_2 9.35, O 4.53, sum 99.75%.

CRYSTALLOGRAPHIC PROPERTIES: New measurement of axial ratio *a:b* gave 0.8002:1; cleavage angle 77°20′.

PHYSICAL PROPERTIES: New detn. of D gave (16/4) 7.240.

E. T. W.

CLASS: OXIDES. SUB-CLASS: DOUBLE OXIDES. DIVISION: R″:R‴ = 1:2.

Crednerite.

RAMMELSBERG, 1848; redescribed by SPENCER and MOUNTAIN, *op. cit.,* pp. 86-88.

CHEMICAL PROPERTIES: Previous analyses have been imperfect, and the usually accepted formula is erroneous. *Correct formula,* $CuMn_2O_4$ or $CuO.Mn_2O_3$; theory CuO 33.5, MnO 59.8, O 6.7, sum 100.0%. Analysis on material from which part

of the carbonate impurities had been removed by dilute HNO_3 (by E. D. M.) gave: CuO 36.57, MnO 54.40, O 6.22, H_2O+CO_2 1.88, PbO 0.88, sum 99.95%; after removing 6.10% malachite and 1.0% cerussite, this gives: CuO 34.68, MnO 58.62, O 6.70, sum 100.00%.

PHYSICAL PROPERTIES: Corrected D (16/4) = 5.03.

OCCURRENCE: Present in considerable amount on the outside of nodules of lead ore from Higher Pitts. E. T. W.

CLASS: OXIDES. SUB-CLASS: DOUBLE OXIDES. DIVISION: R'':R''' = 1:2.

Trevorite.

CROSSE, 1921. Redefined by T. L. WALKER; Trevorite, a distinct mineral species. *Contrib. Canad. Min., (1923); Univ. Toronto Stud., Geol. Ser.*, **16**, 53-54, (1923).

CHEMICAL PROPERTIES: *Formula*, $NiO.Fe_2O_3$ or $NiFe_2O_4$; theory, NiO 31.9, Fe_2O_3 68.1, sum 100.0%. Analysis by E. W. Todd on material found by E. Thomson to be mineragraphically uniform, and partially purified from associated nickeliferous talc or serpentine, gave: NiO 29.71, FeO 1.96, MgO 0.24, Fe_2O_3 66.24, SiO_2 1.40, H_2O 0.36, sum 99.91%. On deducting impurities the agreement with the theory is excellent.

PHYSICAL PROPERTIES: Color black with greenish hue; luster metallic; streak black. Very strongly magnetic. H. = 5; sp. gr. = 5.165.

DISCUSSION: The original review of this mineral in this journal (**8**, 37, 1923) was based on an incomplete description, including an imperfect analysis. On the principle that new species can not be accepted until reasonably dependable data concerning their homogeneity are available, it was classed as doubtful. The present paper furnishing adequate evidence as to the distinctness of the mineral, it may now be raised to species rank, and placed in the spinel group. E. T. W.

CLASS: CARBONATES. SUB-CLASS: HYDROXY-CARBONATES. DIVISION: $R'':(CO_3):H_2O = 3:2:2$.

Hydrocerussite.

NORDENSKIÖLD, 1877; new data furnished by SPENCER and MOUNTAIN, *op. cit.*, pp. 80-85.

CHEMICAL PROPERTIES: Accepted formula now definitely based on analysis of natural material (E. D. M.): PbO 86.52, 86.43, CO_2 11.21, 11.32, H_2O 2.33, 2.00, Cl_2 0.27, 0.32, sums (less $O = Cl_2$) 100.17, 100.00%. The Cl appears to be isomorphous with (OH). The H_2O goes off only above 200°, completely at 250°.

PHYSICAL PROPERTIES: New detn. of D gave (25/4) = 6.80.

OCCURRENCE: Fairly common in the Mendip Hills, although not previously recorded from there. E. T. W.