

It may be of interest in this connection to note that quite recently De Schmid¹ has found, in the eastern Rocky Mountains, beds of phosphates in the upper 50 feet of the Rocky Mountain quartzite which is also carboniferous. No such beds have been found in the vicinity of the H. B. Mine but it is not improbable that the phosphoric acid entering into the zinc phosphates here described may be derived from some bed of phosphate more or less equivalent to those discovered by De Schmid farther east. In the carboniferous a few miles north of the H. B. Mine, Drysdale² reports the occurrence of pyromorphite at the Old Timer Mine.

CERUSSITE

Cerussite has not been observed in association with the phosphates found in the cave but throughout the ore body along with calamine and limonite it is generally distributed. An account of some exceedingly beautiful specimens of cerussite from this mine was recently published.³ The crystals are water clear with very brilliant faces and well suited for exact goniometric measurements. This is probably the finest crystallized cerussite found in Canada.

The crystals are almost invariably twinned forming six-rayed structures such as have been frequently observed for this mineral. In these complex growths the twinning ordinarily observed occurs on the face of the prism (110) but in the case of the Salmo mineral the structures are often more complex in that several of the individuals are twinned on (110) while one of these is twinned on another individual with (130) as the twinning plane. In many minerals complex twins involving more than one twinning law are common but the stellate interpenetration twins of cerussite have been regarded till recently as resulting from twinning according to one law only.

¹De Schmid, H. S. (Mines Branch, Bulletin No. 12, Ottawa, 1917).

²Drysdale, C. W., *Ymir Mining Camp* (Geol. Surv. Can. Ottawa, p. 570, 1917).

³Ledoux, A., and Walker, T. L., *Cerussite from Salmo, B.C.* (Ottawa Nat. 1918).