of thin cleavage fragments are formed which when examined with the polarising microscope show low double refraction and polysynthetic twinning of the albite type. The extinction angle for individuals is the same as in the case of the mineral from Rhodesia. With convergent polarized light an interference figure showing a single brush may be observed, indicating that an optic axis emerges more or less at right angles to the brachypinacoid. It will be observed that in these many details the Canadian and Rhodesian minerals agree and the enumeration of these physical properties is only with a view to fixing the identity of the minerals.

CHEMICAL PROPERTIES

Some carefully selected small masses of parahopeite were ground up for chemical analysis and dried at 110°. The result of the analysis (I) may be compared with (II) the theoretical composition for parahopeite $Zn_3(PO_4)_2.4H_2O$. In view of the fact that the selected material was composed of innumerable individuals forming aggregates in which foreign matter would be expected to be present in some proportion, the agreement of the analysis with the theoretical values is remarkably close.

	I	II
ZnO	54.69	53.270
P_2O_5	30.46	31.005
H_2O	15.31	15.725
	100.46	100.000

HIBBENITE

In addition to the three zinc phosphates observed by the author on material from the H. B. Mine, Professor A. H. Phillips has described a new zinc phosphate from this mine under the name of hibbenite. It is closely associated with the spencerite in its occurrence and is apparently genetically related to it. The author unfortunately has not observed this new rare mineral on the abundant material at his disposal so that for the sake of completeness it seems desirable to