solves white light into its spectrum." The equations of the various optical surfaces are given in rectangular coordinates but on pages 65 and 142 the equations do not follow the text. Although perhaps not of major significance, these errors will confuse the student. However, the reviewer still believes that the experienced teacher can use this book to advantage because of the many excellent drawings it contains.

C. B. SLAWSON

NEW MINERAL NAMES

Hectorite

H. STRESE AND U. HOFMANN: Synthesis of magnesium silicate gels with two-dimensional regular structure. *Zeit. anorganische allgemeine Chemie*, **247**, 65–95 (1941).

The name hectorite is proposed for the magnesian bentonite from Hector, California, described by W. F. Foshag and A. O. Woodford, *Am. Mineral.*, **21**, 238–244 (1936). It is regarded as being the magnesium end-member of the montmorillonite group. *X*-ray data are given.

DISCUSSION: The name hectorite was proposed in 1882 for an alteration product of pyroxene, perhaps anthophyllite (see *Dana's System*, 6th Ed., p. 364). However, the name has not been used in this sense for many years.

MICHAEL FLEISCHER

Brammallite

F. A. BANNISTER: Brammallite (sodium-illite), a new mineral from Llandebie, South Wales. *Mineral. Mag.*, **26**, 304–307 (1943).

NAME: For Dr. Alfred Brammall.

CHEMICAL PROPERTIES: A member of the illite group of mica-like clay minerals, which contains more Na than K.

Analysis by M. H. Hey on 15 mg. gave Na_2O 5.22, K_2O 2.58%. (i.e. the full alkali content of paragonite. M. F.)

No measurable differences were found in the *x*-ray patterns of material heated to 700°.

PHYSICAL PROPERTIES: Occurs as white, compact tufts of elongated plates about $\frac{1}{2}$ mm. long. Optically biaxial, negative, $\alpha = 1.561 \pm .002$, $\gamma = 1.579 \pm .002$, 2 V large. The extinction is nearly parallel. Elongation positive. *X*-ray study gave $a = 5.2$, $b = 9.0$, c sin $\beta = 18.95$ Å. *X*-ray powder data are given.

OCCURRENCE: Occurs as fissure filling and surface coating on shale overlying coal-measures at Llandebie, South Wales.

M. F.

REDEFINITION OF SPECIES

Jacobsite, Vredenburgite

BRIAN MASON: Mineralogical aspects of the system FeO-Fe_2O_3-MnO-Mn_2O_3. *Geol. För. Förh.* (Stockholm), **65**, 97–180 (1943).

In a study of the system Fe_3O_4-Mn_3O_4, natural material in the range 54–91% Mn_3O_4 was found to consist of two phases: a tetragonal phase with 91% Mn_3O_4 and a cubic phase with 54% Mn_3O_4. It is suggested that the name vredenburgite should be used for all compositions within this range. These consist of oriented intergrowths formed by ex-solution.

It is possible that material might be found in this range in which ex-solution did not occur. If such homogeneous tetragonal material is found, it is suggested that it be termed β-vredenburgite.

Jacobsite is usually considered to be $MnFe_2O_4$. It is suggested that the name be extended to include those members of the cubic solid solutions of the series Fe_3O_4-Mn_3O_4 in which the theoretical $MnFe_2O_4$ molecule is dominant, i.e. $(Fe,Mn)_3O_4$ containing 16.7–54% Mn_3O_4. Some MgO is commonly present.

M. F.

DISCREDITED MINERALS

Devadite, Garividite

BRIAN MASON, *Op. Cit.* Devadite and garividite were names suggested by Fermor (1938) for material differing slightly in Fe_3O_4-Mn_3O_4 ratio from vredenburgite. If the definition of vredenburgite is extended as stated above, these names become superfluous and should be discarded.

M. F.

Mr. George L. English, Manager of the Mineral Department of Ward's Natural Science Establishment from 1913 to 1922 and consulting mineralogist from 1922 until his retirement in 1934, died January 2, 1944, at Winter Park, Florida, at the age of 79 years. Mr. English served as Vice-president of the Mineralogical Society of America in 1927.