author considers it one of the most important tasks of loess research in the near future to formulate a definition that will satisfy all parties concerned!]

The second part (pp. 73–124) entitled "physical properties of loess" treats of such divers topics as mineralogical, chemical and granular (mechanical) composition; structure, porosity, plasticity, permeability, and behavior toward water, varying loads, frost, etc. The mineralogical composition is accorded only five pages, a reflection of the lack of information available. Quartz is always predominant and averages 60%–80% of the total mineral matter. This accounts for the fact that loess never weathers into fat clays, but always remains lean sandy loams with little clay (8%–15% on the average). Next in importance are feldspars and lime carbonates which may form the well-known lime concretions, although lime free loess is also found. No less than 54 different minerals have been reported from a Chinese loess, but the great need for a systematic comparative petrographical study of the world's loess deposits is emphasized. From the mechanical analyses it is clear that loess and its congeners are all characterized by the preponderance of the fraction 0.05–0.01 mm. and the absence of the colloidal fraction, less than approximately 0.001 mm. in diameter.

The third part (pp. 125–204) under the title "loess and geotechnics" is devoted to the engineering applications of the foregoing discussions—a subject which seems to have been largely overlooked by engineers. It treats, in turn, of the problems encountered in using loess for structural foundations, for hydraulic purposes, for water supplies and for technological purposes. A topical and a geographic index, besides the lengthy bibliography, referred to above, conclude this monograph, of which the publication was eminently justified.

M. W. Senstius

PROCEEDINGS OF SOCIETIES

MINERALOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

Anniversary Meeting, November 1st, 1934

The following were elected officers and members of the Council:—

President, Sir Thomas H. Holland; *Vice-Presidents*, Mr. Arthur Russell, Sir William H. Bragg; *Treasurer*, Mr. F. N. Ashcroft, *General Secretary*, Mr. W. Campbell Smith; *Foreign Secretary*, Prof. A. Hutchinson; *Editor of the Journal*, Dr. L. J. Spencer; *Ordinary Members of Council*, Prof. P. G. H. Boswell, Prof. H. L. Bowman, Dr. L. Hawkes, Mr. J. B. Scrivenor, Mr. T. Crook, Dr. W. F. P. McLintock, Mr. L. R. Wager, Dr. A. K. Wells, Prof. A. Brammall, Mr. C. W. Mathews, Dr. P. T. Phemister, and Dr. H. H. Thomas.

Dr. L. J. Spencer: *Murnpeowie* (*South Australia*), *a granular type of meteoric iron*. A mass found in 1909 weighing 2520 lb. is preserved in the School of Mines, Adelaide. Study of an etched slice shows remnants of an original lamellar octahedral structure from which granular kamacite has been developed by heat treatment of the mass. The grains of kamacite are irregular in outline and orientation and show well marked Neumann lines. A narrow, finely granular zone on the outside of the mass shows the effect of another and later heat treatment during the flight of the meteorite through the earth's atmosphere.

MR. J. ADAM WATSON: *Colour reactions in the micro-chemical determination of minerals.* Most of the elements occurring in minerals can be determined qualitatively by highly sensitive colour reactions carried out in solutions prepared from minute quantities of the minerals. Solution is effected either with HCl or by fusing in a bead of sodium carbonate in a loop of platinum wire. The basis of the work is mainly Dr. F. Feigl's "Qualitative Analyse mit Hilfe der Tüpfelreactionen," published in 1931.

MR. A. R. ALDERMAN: *Almandine from Botallack, Cornwall.* Well crystallised icositetrahedral garnets from Botallack, Cornwall, give the following analysis; SiO_2 35.58, TiO_2 trace, Al_2O_3 21.94, Fe_2O_3 none, FeO 38.54, MnO 0.70, MgO 0.68, CaO 1.68, H_2O- 0.12, = 99.24. The garnet is thus very rich in the almandine molecule. This and many other analyses of almandine-rich garnets, show aluminium in excess of that required by the accepted garnet formula.

MR. B. LIGHTFOOT, MR. A. M. MACGREGOR AND MR. E. GOLDING: *The meteoric stone seen to fall in the Mangwendi native reserve on March 7, 1934.* This is the first meteorite to be recorded from Rhodesia. It fell at 12:45P.M. about 40 miles east of Salisbury and was broken in its fall amongst granite boulders. The pieces recovered weighed 52¼ lb., but the whole must have been about 60 lb. The main mass, weighing 48 lb. 11 oz. (22 kg.) has been presented to the British Museum by the Government of Southern Rhodesia. It is a grey chondritic stone of the Soko-Banja type, consisting of olivine, enstatite, and feldspar with metallic nickel-iron (3.17%) and troilite (4.98%).

MR. F. A. BANNISTER: *The crystal-structure of the bismuth oxyhalides.* Minute single crystals of the BiOCl, BiOBr and BiOI have been prepared by a diffusion method. They yield perfect Laue, rotation and oscillation photographs which show that all three salts are tetragonal and have a similar crystal structure to that of matlockite (PbFCl). The bismuth and oxygen atoms of these compounds are more closely packed together than the correspondir g lead and fluorine atoms of matlockite. Powder photographs show that Daubreeite (1876) is identical with artificial BiOCl.

MINERALOGICAL SOCIETY OF AMERICA

—PROGRESS REPORT OF THE COMMITTEE ON AFFILIATION— *December 1934*

In the early part of the year 1934 the Geological Society of America suggested informally that its affiliated societies might cooperate in surveying their fields of activity and publication with respect to the parent society. As a result, three Societies, the Seismological Society of America, the Paleontological Society and the Mineralogical Society of America, appointed committees on affiliation to confer with the Executive Committee of the Geological Society of America.

The affiliation committee appointed by the Council of the Min-