of the ashes shows that the sample grown in limestone contains 22.7 per cent. more P_2O_5; 44.0 per cent. more CaO; 27.6 per cent. more MgO, and 18.8 per cent. less K_2O than the one grown in garden soil. The external appearance of these two samples was identical.

Some experiments in adsorption phenomena: P. L. BLUMENTHAL, D. J. HEALY and A. M. PETER. (Presented by P. L. BLUMENTHAL.) The adsorption of crystal violet by powdered phlogopite was demonstrated and it was shown that the mineral which had been acted upon by bacterial cultures withdrew from dilute solution more of the dye than did the untreated mineral, weight for weight.

An improved astatic galvanometer: C. C. KIPLINGER. A new coil for an astatic galvanometer has been designed, the simplicity and efficiency of which is described. A current equivalent to 1° C. temperature difference between the terminals of a 5 couple iron-germansilver thermopile shows a swing of 8 inches on a scale 50 inches from the instrument.

A modified ebullioscopic apparatus for accurate molecular weight determinations: C. C. KIPLINGER. A method is suggested whereby an ebullioscopic apparatus may be made independent of variations in atmospheric pressure. It has been shown that molecular weights may be determined by this method of comparison without any knowledge of the constant for the given solvent, thus rendering the experiment independent of previous experimental errors involved in the determination of *C*.

Notes on the viability of tobacco seed: G. C. ROUTT. Experience in Canada shows that home-grown seed germinates better than seed from more southern localities and a higher percentage of viable seed are set during bright, warm weather than when cool, cloudy weather prevails. A higher percentage of germination is obtained from seeds gathered when the pods are half brown than when they are left until the pods are wholly brown. Tobacco seed retains its viability for many years; a sample eight years old having shown 95 per cent. germination, and one twelve years old, 70 per cent.

The projection of water waves: N. F. SMITH. A simple method was described by which surface waves in water could be produced and projected by means of the lantern so as to illustrate important characteristics of wave motion.

The McCreary county aerolite: A. M. MILLER. Portions of the aerolite which recently fell in McCreary county, Ky., were exhibited and an account of the occurrence was given. The body is stony and nearly white, containing very little metallic iron. Dr. Peter reported a qualitative chemical analysis showing that the mineral is essentially a magnesium silicate, probably enstatite. Metallic particles amounting to less than 0.2 per cent. were shown to be nickeliferous iron. Chromium, phosphorus and sulfur were detected.

The discovery of a mica deposit in eastern Kentucky: W. R. JILLSON. The author announces the discovery of a single stratigraphic unit deposit of nearly pure flake mica in the Pottsville of Pike county—the first in Kentucky.

At the afternoon session Dr. E. B. Hart, of the University of Wisconsin, Madison, Wis., addressed the academy on "The widening viewpoint in animal nutrition."

An illustrated discussion was given of the most important results of investigations concerning nutrition which had been conducted in his laboratory at the University of Wisconsin and elsewhere. A brief account was given of the accumulative toxic properties of wheat embryos and the corrective properties of corn stover which, however, did not equal the legume hays in this respect. The vitamine factor was briefly discussed as were the subjects of roughage, protein efficiency, and the necessity of inorganic salts. Finally it was stated that a balanced diet must contain sufficient fuel value, efficient proteins, food accessories, roughages and inorganic salts and be sensibly free from toxic material.

Officers were elected as follows: Dr. Paul P. Boyd, president; Dr. Walter H. Coolidge, vice-president; Dr. Alfred M. Peter, secretary; Mr. J. S. McHargue, treasurer.

ALFRED M. PETER,
Secretary

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