

Upon the arrival of President Wilson, he read his address as retiring President, giving a general *résumé* of the work of the Society during the past year, and making some suggestions about its future work. The importance was also urged of establishing in the city of Birmingham a School of Natural Sciences, in which every youth in the limits of the city might have the opportunity of acquiring some scientific training, and especially in those branches of science which bear upon the manufacture of iron. The establishment of such a school would cause similar schools to spring up in the smaller towns and would be followed by industrial growth.

Papers were then read as follows: 'The Brown Ores at Leeds, in Jefferson County,' by J. W. Castleman, of the Sloss Iron and Steel Co. In this paper an account was given of the large deposits of brown ore recently developed by the Sloss company. 'On *Trichina spiralis*,' by Dr. John Y. Graham, of the State University. This paper, based upon original investigations by Dr. Graham, was illustrated by charts and by specimens under the microscope. 'On Roads and Road Making,' by Colonel Horace Harding. 'British Columbia and its Mineral Resources,' by Wm. M. Brewer. 'A Section through Red Mountain,' by A. W. Haskell.

The election of officers for the ensuing term was then taken up, with the following result: President, J. H. Fitts, of Tuscaloosa; Vice-Presidents, J. M. Garvin, of Rock Run, and J. H. McCune, of Woodward; Treasurer, Henry McCalley, of the University of Alabama; Secretary, Eugene A. Smith, University of Alabama. The Society then adjourned, to meet again on May 3d, next. After the adjournment the members of the Society and their invited guests partook of a banquet at the Morris Hotel.

EUGENE A. SMITH,
Secretary.

DISCUSSION AND CORRESPONDENCE.

ETHERION.

TO THE EDITOR OF SCIENCE: In a recent number of SCIENCE attention was called to what appeared to be an unreasonable attitude on the part of the editors of *Nature* towards

Mr. Charles F. Brush's paper on Etherion, an attitude, namely, which simply refused to accept Mr. Brush's results until they were demonstrated by the spectroscope. A recent criticism by M. Smoluchowski de Smolan in *Nature* for January 5th is, on the other hand, entirely reasonable, being, as it is, a fair criticism of Mr. Brush's work. The question whether heat conductivity can demonstrate the existence of an unknown thing, and the question whether Mr. Brush really found a gas which had one hundred times the thermal conductivity of hydrogen at the same pressure, are very different. It is this latter question which is raised by M. de Smolan. It seems probable, indeed, that the anomalous thermal conductivity found by Mr. Brush may have been due to his not having rigorously excluded water vapor, thus making his pressure determinations uncertain. We may soon expect an answer to this point from Mr. Brush himself.

W. S. FRANKLIN.

NOTES ON INORGANIC CHEMISTRY.

AN extended research has been made by E. Hintz on the effect of varying quantities of the rare earths on the luminosity of the mantels for the Welsbach burners. The results are published in the *Zeitschrift für analytische Chemie*. Comparing the oxids of thorium and cerium alone and mixed in varying proportions, and, using for comparison the number of liters of gas consumed per hour per Hefner light unit, it appears that the consumption for pure thoria is 50 and for pure ceria 61. With traces of ceria in thoria the consumption decreases, 0.1% ceria giving 6.7; 0.2%, 3.1, and 0.5%, 2.1. On the other hand, thoria added to ceria has much less effect, 30% thoria requiring 48; 60%, 31, and 80%, 12. The minimum consumption, that is, the greatest light efficiency, is reached with a mixture of 99% thoria and 1% ceria, with which the consumption of gas is only 1.4 liters per hour per Hefner unit. Some decrease of efficiency is noticed after several hundred hours' use. As regards the addition of other oxids to this 'normal' thoria-ceria mixture (99:1) 1% of neodymia, lanthana, yttria or zirconia has no effect; nor does 2% of the first three. Two per cent. of zirconia, however, diminishes