

**THIRTY-SECOND AND THIRTY-THIRD ANNUAL REPORTS OF  
THE STATE GEOLOGIST**

IOWA GEOLOGICAL SURVEY,  
DES MOINES, DECEMBER 31, 1924.

*To Governor Nathan E. Kendall and Members of the Geological Board:*

GENTLEMEN: I beg leave to transmit to you herewith several papers with the recommendation that they be published as Volume XXXI of the Survey. This Volume will constitute the Thirty-second and Thirty-third Annual Reports of the Iowa Geological Survey. The titles of the papers submitted and the names of the authors of the papers are as follows:

Mineral Production in Iowa in 1923 and 1924, by James H. Lees.

The Geology of the More Refractory Clays and Shales of Iowa, by S. L. Galpin.

The Fertilizer Materials of Iowa, by John E. Smith.

Ash and Sulphur in Iowa Coals, by H. L. Olin and J. R. Troeltsch.

Trilobites of Iowa and some Related Paleozoic Forms, by Otto Theodore Walter.

Respectfully submitted,

GEORGE F. KAY,  
*State Geologist.*

