

concluded that the chances of securing commercial supplies of petroleum are not very bright. It is possible some natural gas may be found but it is unlikely that large supplies exist.

A detailed report upon the Milk River area and the Red Coulee oil field, Alberta, is submitted by C. S. Evans.¹ The rocks in the area range from Jurassic to Upper Cretaceous. Logs of wells drilled in the area are incorporated.

B. R. MacKay presents a study of the Mesozoic-Palæozoic contact and associated sediments, Crowsnest district, Alberta, and British Columbia.¹ Operations carried on in Turner valley and other oil fields in Alberta have demonstrated that oil occurs in both the Mesozoic and Palæozoic measures and that one of the most important horizons is at or near the Mesozoic-Palæozoic contact. With the object of gradually accumulating data pertaining to the nature and extent of any unconformities that exist and the changes in thickness and lithological character of the associated sediments that takes place, this examination has been undertaken.

A preliminary study of the oil and gas possibility of the Waterton Lakes-Flathead area, Alberta, and British Columbia,¹ is made by G. S. Hume.

The stratigraphy and structure of the east portion of the Blood Indian Reserve Alberta,¹ is indicated by Loris S. Russell.

A detailed description of oil prospects of Fisher Creek, Two Pine, and Birch Ridge structures, eastern foothills of Alberta,¹ is given and the oil prospects of Great Slave Lake and MacKenzie River areas, Northwest Territories⁵ are summarized by G. S. Hume.

An inventory of available data upon oil and gas in Eastern Canada¹ is also made by G. S. Hume. A chapter upon the origin of oil and gas is followed by a comprehensive description of the southern Ontario oil fields; physical features, stratigraphy, structural geology, history of development, and relation of oil and gas production to the stratigraphy are summarized. The stratigraphy, structural geology, and oil and gas prospects of the Moose River basin, the Eastern St. Lawrence region, the Gaspé peninsula and the Maritime Provinces is also described.

Phosphate.—L. Telfer presents a paper upon phosphate in the Canadian Rockies.⁵ During Palæozoic time there were deposited in the Canadian Rockies four beds of phosphate rocks, ranging in age from Mississippian to Jurassic. Two of these beds are of probable economic importance if some means of separating the phosphate from the gangue can be devised.

Radium.—H. V. Ellsworth presents a comprehensive treatise upon rare-element minerals of Canada.¹ The chemical and physical properties of metals in this group are stated, the geology is outlined, and the Canadian occurrences indicated. Of especial interest at the present time are two chapters upon radioactivity, radio-elements, and radioactive minerals as geological age indicators.

Accounts of the Great Bear Lake and Coppermine River areas, MacKenzie district, Northwest Territories^{1,4,5,7} are given by D. F. Kidd. Copper is found as disseminated native copper in basalts, as amygdaloidal copper in tops of volcanic flows, as sheet native copper in cracks in the basalt, and in large quartz veins in volcanic rocks of the Coppermine River series. Pitchblende associated with silver and silver deposits without pitchblende are found in shear zones in folded sediments and volcanics.