of magma that differentiated during cooling, under the influence of gravity, into a lower norite portion of relatively high specific gravity and an upper lighter micropegmatite portion; (2) that the norite and micropegmatite are two separate intrusions; and (3) that there is only one intrusion, the upper part of which became micropegmatite by assimilation of the overlying sedimentary rocks. The first theory, that of differentiation in place of a single intrusion, is the most widely accepted and appears to be in much the best accord with the known facts. This theory assumes fractional crystallization. Following comprehensive field investigations, however, Collins comes to the conclusion that the original magma of the nickel irruptive separated while in a liquid state into norite and micropegmatite magmas and that near the end of this process some of the norite magma escaped into cracks in the floor to form the basic offsets.

Oil and Gas.—M. Y. Williams provides a summary of the mineral resources of Peace River area, British Columbia.[5] It is concluded by the writer that gas may be expected on all favourable structures in this area and that oil will probably be found in some of the easterly structures, although at five thousand feet or more. Raw materials for Portland cement, marl, calcareous tufa, ochre, limonite, bog iron and placer gold occur in the district.

The oil and gas potentialities in the Aldersyde area, about twenty miles south of Calgary, Alberta,[5] are discussed by R. M. S. Owens. Prospecting within the area necessitates very deep drilling but compensation lies in the absence of pronounced irregularities in the geological structure, thus leading to less hazardous operations and the knowledge that all prospective horizons can be encountered.

The *Journal of Geology* contains a paper by Charles E. Michener upon the northward extension of the Sweetgrass Arch. Compressive stresses no doubt had an influence on the attitude of the west flank of the Sweetgrass Arch, but it is believed by the writer that the stresses that really controlled the uplift were dominantly vertical in their action and the initial arch having once been established in the Palæozoic, has been intermittently rejuvenated.

Platinum.—"Platinum and Allied Metal Deposits of Canada"[1] by J. J. O'Neill and H. C. Gunning provides a comprehensive résumé of existing knowledge of the geology of platinum deposits and concise descriptions of occurrences in Canada and foreign countries.

Silica.—A report upon a hydrous-silica deposit, situated north of Minaki, Ontario,[1] is made by J. F. Wright and C. H. Stockwell. The deposit lies in an area of Precambrian sediments and lavas penetrated by bodies of granite and pegmatite. The body of porous, friable material carrying hydrous-silica resulted from the leaching action of waters in ascending along a fissure.

Silver.—A report upon the Slocan mining camp, Kootenay district, British Columbia,[1] is written by C. E. Cairnes. The Selkirk mountains, within which the Sandon and Slocan map-areas lie, are composed of formations ranging in age from Precambrian to Tertiary, but Precambrian measures and post-Triassic intrusives occupy the major part of the territory. The Slocan Series, of Tertiary age, which is widely exposed in the area examined comprises a variety of sediments classed as slates, argillites, limestones, quartzites, conglomerates and tuffaceous beds. The deposits comprise fissure-filling and replacement types and occur mainly in the sediments of the Slocan Series. A number of important deposits have also been found in granite and a few discoveries have been made in other formations. The