

**Arctic Archipelago and Hudson Bay Lowland.**—The higher regions of the Arctic Archipelago are composed largely of Precambrian rocks. Cambrian strata are exposed on the east side of Ellesmere island. At other places, horizons ranging from Cambrian to Silurian are found resting directly on the Precambrian. The most widespread Palæozoic formation is the Niagara, or mid-Silurian. On the southwest side of Ellesmere, 8,000 feet of strata ranging in age from middle Silurian to upper Devonian are found. Carboniferous sandstones occur on Parry island. Triassic sediments consisting of limestone and calcareous shale with some volcanic rocks are found on the northwestern and northeastern coasts of Ellesmere island, and Tertiary sands and lignites are also found here and in northwest Baffin island, usually occupying depressions in the older granitic rocks. All of these measures have only gentle dips.

The lowland underlain by Palæozoic strata on the west side of Hudson bay has a length in a southeast direction of 800 miles, a width of from 100 to 200 miles, and an area of 120,000 square miles. It rises from sea-level with a scarcely perceptible gradient to an elevation of about 400 feet. The strata are nearly horizontal and range in age from Ordovician to Mesozoic.

The severe climatic conditions and the inaccessibility have permitted but little prospecting in the northern islands; gold has been reported from the head of Wager inlet; native copper has been brought back from Baffin island; mica and graphite have been found on the north side of Hudson strait; bituminous coal is known to occur in Carboniferous strata on the islands north of Lancaster sound and lignite occurs in the Tertiary beds on the northern and eastern shores of Baffin island as well as on Bylot island. In southwest Greenland, territory belonging to Denmark, an important deposit of cryolite, mineral containing aluminium, occurs in a vein traversing grey gneiss; in the Hudson Bay lowland lignite and refractory clay occur in the Mattagami series of latest Jurassic or early Cretaceous age.

### 3.—Economic Geology of the Arctic Archipelago and Hudson Bay Lowland.

Geological Formation.	Mineral Deposits.	
	Minerals Present.	Geological Habit.
<b>TERTIARY—</b>		
Miocene, sands and clays .....	Coal.....	In beds.
<b>MESOZOIC—</b>		
Cretaceous.....	Coal and refractory clay....	In beds.
Triassic.....	—	
Limestone and shales.....	—	
<b>PALÆOZOIC—</b>		
Pennsylvanian.....	—	
Limestone, tuffs, and lavas.....	—	
Mississippian.....	—	
Sandstones and shales.....	Coal.	
Devonian.....	—	
Limestone.....	—	
Silurian.....	—	
Limestone.....	—	
Ordovician.....	—	
Limestone.....	—	
Cambrian.....	—	
Limestone.....	—	
<b>PRECAMBRIAN—</b>		
Batholithic granites and gneisses.....	Mica.....	} Veins and disseminations.
	Graphite.....	