

The chief gold region is the mainland of Nova Scotia where gold-bearing quartz occurs along anticlinal openings and in cross-cutting veins in the Gold-bearing series. Gold-bearing quartz veins also occur in Cape Breton island and placer gold has been found in gravels in Chaudière River district, 50 miles southeast of Quebec city.

Copper ores have been mined in southeastern Quebec. At the Acton mine the ore consists of bornite and chalcopyrite in a brecciated limestone. At the Harvey Hill mine schistose rocks were traversed by narrow veins of quartz, calcite, and dolomite, some of which held bornite, chalcopyrite, and chalcocite. At the Eustis mine the deposits are replacements consisting of lenses of ore, in some cases paralleling or overlapping one another. The Huntingdon ore-body lay in chloritic schist along the edge of a sill of serpentine.

Iron deposits occur at numerous localities in the Appalachian and Acadian province. Magnetite deposits formed by the replacement of schistose quartz porphyry rocks occur near Bathurst, New Brunswick. Ores of sedimentary origin were mined in the Nictaux-Torbrook iron-ore field of Nova Scotia. At Londonderry, Nova Scotia, limonite and carbonate ores occur in a zone of fissuring, along the south slope of Cobequid hills. The deposits owe their origin to the igneous intrusions that form the central part of this range.

In the central part of Gaspé peninsula, veins carrying zinc and lead traverse shales and limestones of lower Devonian age. They are related to Devonian intrusive rocks of the region. Near Stirling zinc deposits occur as replacements in volcanic rocks of early Palæozoic age. They, too, are related to the deep-seated intrusions.

Tungsten deposits, consisting of scheelite-bearing veins, occur in the Gold-bearing sedimentary rocks of Nova Scotia. Auriferous stibnite occurs at West Gore, Hants county, in the same series. Stibnite with some native antimony also occurs in New Brunswick at Prince William, 25 miles west of Fredericton. All these occurrences are related to the Devonian igneous intrusives.

#### 4.—Economic Geology of the Appalachian and Acadian Region.

Geological Formation.	Mineral Deposits.	
	Minerals Present.	Geological Habit.
RECENT AND PLEISTOCENE.....	Diatomite.....	In beds.
TERTIARY—		
Tertiary gravels of the Chaudière.....	Gold.....	Placers.
Triassic of Nova Scotia.....	Native copper.....	In veins.
PALÆOZOIC—		
Carboniferous.....	—	
Sandstone, shales.....	Coal.....	In beds.
Limestones.....	Salt.....	In beds.
	Gypsum.....	In beds.
	Manganese.....	In beds and pockets
	Barite.....	In veins.
	Petroleum, natural gas, and oil-shale.	—
Devonian.....	—	
Granite batholithic intrusives.....	—	
Sandstone conglomerate.....	—	
Limestones and shales, volcanics.....	Lead, zinc.....	In veins.
Silurian.....	Iron.....	In beds.
Limestones, shales, sandstones, volcanics.....	Iron.....	In beds.
Ordovician.....	—	
Limestones, shales.....	Iron near Bathurst, N.B.....	Replacement.
Peridotite intrusions.....	Asbestos, chromite.....	In intrusive rock.
Quartzite, volcanics.....	Copper.....	Impregnations.
Cambrian.....	—	
Limestones, shales, etc.....	—	
PRECAMBRIAN—		
Meguma series of Nova Scotia.....	{ Gold, arsenic, tungsten, antimony.	In veins related to the Devonian batholithic intrusives.
Quartzites and slates.....		
Metamorphosed sediments and volcanics of Cape Breton island and southern New Brunswick..	Zinc, copper.....	Veins and replacements.