The ore bodies themselves are generally lens-shaped fissures filled with quartz veinlets and other highly siliceous matter. Iron pyrite is always present. Mineralized schist on the walls of the veins invariably carries gold values, and as much of this as it is profitable to work is broken down. The irregularity of the ore bodies requires a tremendous amount of sampling before breaking ore. The lenses are of irregular shape, varying from only a few feet in length and width to hundreds of feet in length and as much as 30 or 40 feet in breadth. There are also irregular dome-like masses of quartz which are roughly elliptical or oval in surface outline.

Ordinarily from 95 to 97 p.c. of the gold in the ores mined at the Porcupine field is extracted chemically by dissolving it in a weak solution of sodium cyanide, the details of the process varying at the different mines. There are five steps in the cyanide process, which are briefly as follows: (1) reducing the ore to a size where the gold particles are freed from enclosing rock, carried to a point where the ore is ground about as fine as cement, (2) dissolving the gold in sodium cyanide solution, (3) separating the solution containing the dissolved gold from the impoverished ore, (4) precipitation of gold from solution by zinc dust, and (5) refining of the precipitates.

Kirkland Lake.—Of the other gold-producing localities, Kirkland lake in Timiskaming district has been the most important. The first gold discovery in the vicinity of Kirkland lake was made in 1911 on a claim now forming part of the Wright-Hargreaves mine. The geological formation is similar, as regards age relationship, to that of the Porcupine district. The rocks are pre-Cambrian, the Keewatin predominating. Unlike the Porcupine, most of the productive veins are found within the porphyry, which is of syenitic variety. Three principal zones of mineralization have been indicated by exploration: (1) the main or central zone, which runs in a northeasterly direction along the southern expanse of the lake, and along which a group of important mines is being developed over a length of $2\frac{1}{4}$ miles and a width of half a mile; (2) a southerly zone which lies about three-quarters of a mile to the south; and (3) a northerly zone known as the Goodfish Lake gold area.

British Columbia.—The production of gold in British Columbia has varied considerably at different periods. Rapid increases took place between 1858 and 1863, when 189,318 fine oz. were won by placer mining. Thereafter a decline occurred until 1893, when a low level of 18,360 fine oz. was reached. Then the introduction of lode mining resulted in a rapidly increasing production until 1902, when previous records were surpassed by an putput of more than 288,000 fine oz. With the exception of the maximum output of 297,459 fine oz. in 1913, the record of 1902 has not been equalled. Recent developments, including the increase of 17.8 p.c. in the production of 1922 over that of 1921, indicate more favourable conditions in the gold mining industry of the province. Though the bulk of the gold obtained in the Cordilleran region has been derived from the placer deposits of the central portion of the region from the Klondike on the north almost to the international boundary on the south, yet a large amount, averaging 178,039 fine oz. between 1913 and 1921, was obtained by lode mining, largely of the copper-gold ores of the Rossland and Yale boundary districts. The metals recovered from the Rossland ores are gold, silver and copper, with gold the most important. The more important copper-gold mines are owned and operated by the Consolidated Mining and Smelting Co. of Trail. The copper concentrates of the Britannia mine also contain gold, as does the blister copper made at Anyox. The output of gold in