show in seams and stringers, but no well defined vein is exposed. It is said that Mr. Hays of Toronto found on assaying some of the selected ore 1·55 p. c. copper, 1·20 p. c. nickel and 1 oz. 3 dwt. 8 grs. of platinum per ton. However, a sample from this occurrence collected by Dr. Coleman gave some nickel and gold, but neither copper nor platinum. PLATINUM. Source and associated minerals.

The British Columbia sources of platinum, have so far been the most productive in North America and these have been the subject of special personal study on the part of Professor Kemp.

He states that the platinum bearing area of chief interest in this region is in the valley of Slate creek and along the Tulameen river below Eagle creek. A great dyke of peridotite which is flanked on both sides by areas of pyroxenite crosses the Tulameen river at its junction with Eagle creek. As far as could be ascertained this peridotite is of the dunite variety and contains no chief mineral constituents other than olivine, chromite and some secondary serpentine. The pyroxenite is a coarsely crystalline rock made up mainly of common augite and it is of later date than the peridotite which it penetrates in places in tongued dykes. Both olivine and pyroxene have been observed adhering to the nuggets found in the Tulameen, and as the peridotite contains no pyroxene it is therefore probable that the platinum has been derived from both the peridotite and the pyroxenite.

In the endeavour to trace the platinum back to its original location, tests were made of serpentine veins rich in chromite and of dykes of pyroxenite in the peridotite. Assays of the serpentine gave amounts of platinum varying from a trace to nearly 2 ounces per ton, whilst assays of specimens of the pyroxenite showing an abundance of magnetite and remote from the peridotite mass, gave only faint traces or nothing whatever. It can be concluded that the platinum is in extremely fine scales, and that large nuggets are rare and the weathering and concentration of enormous masses of rock must be surmised in order to account for the existence of the platinum-bearing gravels.

Platinum is said to have been found in former years at the mouth of Siwash creek, which enters the Tulameen, three miles above Eagle creek. The country-rock here is a granite in which are evidences of lines of dislocation. Along one of these where the granite is more or less decomposed and stained green by chlorite assays of this material gave traces of platinum. The granite of Siwash creek, which is highly acidic, consists of quartz, orthoclase, plagioclase, biotite and a little epidote. It could not be ascertained whether the platinum was