## SECTION OF MINES

h

Platinum has very rarely been discovered in veins or otherwise in PLATINUM. In Russia, whence the greatest quantities are Occurrences. its original matrix obtained, it is almost always found as in the cases above cited in association with gold-bearing alluvions, although it has been noted in a few places with little or no accompanying gold. It appears to be derived from rocks consisting of serpentine and peridotite with talcose and chloritic schists and chromite. While there is a notable abundance of greenish chloritic and hornblendic schists and diabase rocks (resulting from the metamorphism of old volcanic rocks) in the Tulameen and upper Similkameen region of British Columbia, and chromite and magnetite are here found in the workings in association with the platinum and gold, no peridotite or serpentine is actually known to occur. The circumstances in connection with the occurrence of the 'coarse' platinum appear to point to the vicinity of an important mass of intrusive diorite as its point of origin. A great part of the associated magnetite is certainly derived from veins in this rock and it seems not improbable that the platinum, and possibly also a great part of the gold of this district, may occur in scattered grains in this intrusive mass. Very little vein-stuff occurs in the gravels with which the platinum and gold of this region are associated. (Geol. Surv. Rep. 87-88 part R.)

Later investigations however have led to a modification of the views expressed as above by Dr. Dawson in 1888.

The following statement by Mr. R. W. Brock was published in the Summary Report of the Geological Survey of Canada for 1901 p. 67: "It (platinum) has been found in the Similkameen district and is known to occur at many points in the western United States. When found in place it has generally been confined to serpentine, and when found in sands it is usually in the neighborhood of serpentine. Consequently streams draining masses of serpentine in particular should be prospected for platinum. Serpentine, as above noted, occurs at a number of points in the district examined this summer, as on July creek, Hardy mountain and Central Camp. It also occurs on the range east of the Cascade."

A very interesting investigation on a sample of platinum from Granite creek was conducted by Dr. G. C. Hoffmann of the Geological Survey. The original sample weighed 18.266 grams, of which .372 consisted of rock matter, pyrite and gold. The sample was submitted to magnetic separation, and divided into two parts, which on analysis gave the following results: