PLATINUM.

Source and mode of occurrence.

1.—Experience thus far gained leads to the conclusion that platinum is very sparsely distributed in its mother rock and that the chances of finding it in quantities sufficient to mine are small. There is nevertheless, a chance. If found, the recovery of the platinum by any means other than stamping and washing remains to be solved, and as the metal may be in a very finely disseminated state, this problem is a serious feature of the situation.

2.—Large and permanent placers are to be looked for only in very old land areas which have been subjected to protracted degradation and concentration.

3.—In the assay of antimonial, arsenical, and other copper ores, but especially of tetrahedrite (gray copper or fahlerz) it is worth while to look for small percentages of platinum.

4.—Deposits of chromite deserve similar testing.

Through the kindness of Mr. R.W. Brock, we are enabled to give an advanced statement, of the results of his investigation made for the Geological Survey in British Columbia during 1902 the details of which will appear in forthcoming reports of the Department.

The paper is the result of his observations in the field and the assays of the samples were made by Mr. Donald Locke in the laboratory of the Geological Survey.

The occurrence in question is in the Burnt Basin region, Grand Forks Mining Division, British Columbia, on the 'Mother Lode' claim. On this claim two quartz veins, two feet and six feet wide respectively and some 20 feet from each other, occur in greenstone between two large porphyry dykes. The quartz is somewhat milky and has small amounts of pyrite, galena, blende and a little chalcopyrite and molybdenite, whilst in the oxidized surface ore, free gold and copper carbonates are found and native copper also is reported. The principal value is in gold with a little silver.

The samples taken for assay for the platinum metals gave the following results:—

1.—0·10 oz.	platinum per ton,	from lowest level on six feet vein.
2.—0·05	"	" "
3.—0·06	"	from six ft. vein from depth of about. 45 feet from surface.
4.—Nil		From outcrop of two foot vein.

From these and other reliable assays which gave results varying from nil to 1 oz per ton, it is evident that the platinum is very unevenly