

and boulders indiscriminately mixed and which show no stratification. Those deposits are probably of glacial origin, and are the oldest platinumiferous deposits of El Choco. They frequently contain diorite boulders, and it seems possible that the platinum will eventually be found disseminated in this rock. The true gravel deposits of El Choco are newer than the "caliche" beds and in part derived from them. The largest deposits of the kind are situated along the Tamana, Iro, and San Juan rivers. These are from 6 to 20 feet deep and have been extensively worked by the natives. (Min. Ind. Vol. I.) Although the "caliche" beds cannot be said to contain platinum in situ, yet the occurrence differs from the ordinary alluvial deposits. The annual production of Columbia has varied for the last few years between 10,000 and 12,000 oz.

PLATINUM  
Occurrences.

*New South Wales.*—In New South Wales platinum is said to have been detected in felsite and granite at Broken Hill. It is, of course, very sparsely disseminated. It has also been found in small quantities in washings for gold at several places, and since 1894 there is a production recorded, which is very irregular and varies between 500 and 2,000 ozs. annually.

*Brazil.*—In Brazil platinum is found associated with gold in quartz lenses intercalated in gneiss and schists.

*United States.*—As to the United States, Mr. David T. Day in a paper read before the American Institute of Mining Engineers in February 1900 makes the following statement :

"Messrs. William E. Hidden and J. H. Pratt have found sperrylite-platinum arsenide in placers at several points in the Cowee valley of North Carolina. The conditions favour the belief that the source of this mineral is a ledge of impure rhodonite and biotite, containing much disseminated iron sulphides, conditions much like those at Sudbury, Canada.

"There have been unsubstantiated reports of the occurrence of platinum in place in certain localities of the Catskills in New York, in granite near Philadelphia, and again near Port Deposit, Maryland."

As to alluvion deposits he says :

"Platinum has been found at many places on the Pacific beach, from as far south as San Bernardino county, northward to the mouth of the Columbia. Indefinite reports have been made of its occurrence further north on the Washington beach ; but its amount is certainly not great. The principal beaches where platinum has been reported, beginning at the south, are : Santa Barbara, Lanpoc, the beaches of San Luis,