

after gold had been discovered in these states, the inhabitants were content with searching for gold in the beds of the brooks and rivers after heavy rains. One of the proprietors of a gold stream, having noticed that it never yielded gold above a certain point, where a small brook entered into it, was induced to trace the brook to its source, and discovered in the adjacent rocks, veins of quartz which were found to contain pieces of native gold, and were subsequently worked as mines. It is highly probable that in Africa, the sands in certain parts of rivers become auriferous, by the depositions from rivulets that flow into the main stream.

Mr. Hennah, of Plymouth, has in his collection several pieces of native gold, varying from the size of a bean to that of a hazel-nut; they were found in stream works near St. Austel: he has also a specimen of stream tin, eight or nine inches in length, and five or six in breadth, which was evidently, once, part of a vein. In the same stream work they could distinguish at different depths, the different veins from which the ore had been washed out. The pebbles of tin ore, have, in some situations, been washed into the sea, and afterwards covered by beds of clay or gravel. In Mount's Bay, south of the town of Penzance, there was formerly a bed of stream tin worked under the sea. The stream tin covers the killas or slate rock of the country, and is covered by a bed of clay: a perpendicular shaft or tunnel was sunk through the clay, and the bed of stream tin was worked like a bed of coal, the clay forming the roof. See Plate VII. fig. 8. The workings were continued under the sea, but were at length inundated and discontinued.

The bed with pebbles of tinstone, is seen covering the beds of slate; upon this is a thick bed of water tight clay, over which the tides roll. An iron cylinder was sunk through the clay as a shaft to the tin stone, which was worked like a bed of coal and drawn up the cylinder.

The following is a summary account of the rocks in which the different metallic ores are generally found:

Platina and the recently discovered metals called palladium, rhodium, osmium and iridium, have been found only in the sands of rivers.*

Gold and silver are found in primary and transition rocks, in porphyry and sienite, and in the lowest sandstone. Gold has been occasionally discovered in coal, and very abundantly in the sands of rivers, and sometimes in volcanic rocks.

Mercury is found in slate, in limestone, and in coal strata.

Copper, in primary and transition rocks, in porphyry, sienite, and occasionally in sandstone, in coal strata, and alluvial ground. Mass-

* Boussingault discovered platina along with oxide of iron and gold in Sienite, near Santa Rosa, in the province of Antioquia.—*Ann. de Chim. et de Phys.* t. 32. p. 209.—B. S.