

regated or *gash* veins, and the results should not surprise.

The proper gold washings of the Ural which have produced such large amounts of gold, and which were so famous before the discoveries in California and Australia, *were commenced by the Crown* in 1814, from which date to 1850 they yielded 803,700 lbs., while the rock yielded 128,570; total 932,270.

The maximum was reached in 1847, since when there has been a decided diminution, and Whitney says, "It may be safely inferred that it will continue slowly to decline."

The washing machinery of the Ural is remarkably efficacious, much time and money having been expended in its perfection. It would require to be so, as the washings only yield $\frac{3}{4}$ of a grain of gold, to the bushel of 100 lbs.

SOUTH AMERICA.—In the year 1800, Brazil from its washings, procured 9,900 lbs. of gold; it had been famous during the whole of the 18th century as a gold producing country, but since 1800 we have precise information, and we know that the washings are nearly exhausted, and that the principal source of supply is the veins in the solid rock. The Brazilian auriferous rocks *differ* from those in other parts of the world. The rocks, if Palæozoic, are so metamorphosed, as not to be referable to any precise epoch. They have not been elevated to Cordilleras, but form a series of dome like protuberances and dykes, rather than mountain chains.

But there can be no doubt that the "itabarite" or jacotinga already alluded to, is an igneous eruptive rock forming one of the largest true fissure veins in the world.

As the Brazilian mines *in the solid rock*, are the only ones which up to 1854 had been worked exten-