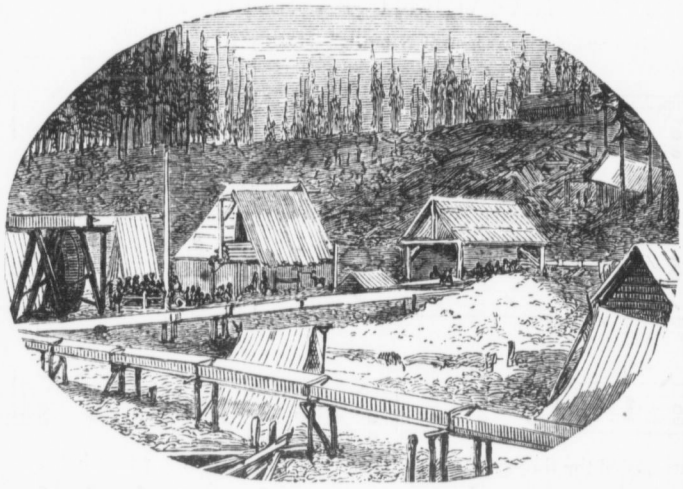

At noon, each day, the dump-boxes are emptied, and the gold separated from the black sand which is always mixed with it. At the "washing up" of one shaft of the Raby Claim, which we saw, the gold filled one of the tin cases used for preserved meats, holding nearly a quart, the value of about £1,000 for fifteen hours' work. Amongst the gold were several shillings and quarter dollars, which had dropped out of the men's pockets, and turned up again in the dump-box.

At the mines on William's Creek, a smaller stream lying about three miles off in a yet narrower ravine, the workings were very similar, but the gold was richer and brighter, and the pieces more jagged and angular, as if they had not been carried very far from the original quartz reef.

MINING IN BRITISH COLUMBIA.

The district of Cariboo is the richest portion of the British Columbian gold field, and here the geologic disturbance has been the greatest. Cariboo is a sea of mountains and pine-clad hills, the former rising to a height of 7,000 or 8,000 feet, surrounded by a confused congeries of the latter. Everywhere the surface has been disturbed, so that hardly a foot of level ground can be found, except at the bottom of the narrow gullies running between these hills. Strata are tilted on end, and beds of streams heaved up to the tops of hills. Round this centre of wealth, poured up from the depths below, the main branch of the Fraser wraps itself in a semi-circular course, and has received from thence, by numerous tributaries, the gold found in its sands.

The extraordinary yield of the Cariboo mines may be inferred from the fact that in 1861 the whole of the colonies of British Columbia and Vancouver Island were almost entirely supported by the gold obtained from Antler Creek alone; and from that time to the year 1865, or for four years in succession, William's Creek has alone sustained more than 16,000 people, some of whom have left the country with large fortunes. And yet William's Creek is a more narrow ravine, worked for little more than two miles of its length, and that in the roughest manner. The miners are destitute of steam power, and many requisites for efficient mining; and all that has been done hitherto has been mere scrafching in the dark.

In the mines we visited at Cameron Town the "pay-dirt," as the stratum of clay and gravel above the "bed-rock" in which the gold lies is called, was from thirty to fifty feet below the surface. A shaft is sunk to the required depth, and the "dirt" carried up by a bucket raised by a windlass. This is emptied into a long box, called the dump-box or "long-tom," having a false bottom of parallel bars, with narrow spaces between them, raised a few inches above the true bottom, across which several cross pieces are placed. A stream of water, brought in a series of troughs called "flumes," sometimes for a considerable distance, pours into the dump-box at one end, and runs out by another series of troughs at the other. As the dirt is emptied in, a man armed with a large many-pronged fork stirs it up continually, and removes the larger stones. The smaller particles and the clay are carried down the stream, while the gold, from its greater weight, falls through the spaces between the parallel bars of the false bottom, and is arrested by the transverse ones or "riffle" of the true one. The "pay-dirt" is generally not more than from three to five feet thick, and the galleries of the mine are consequently very low, the roof being propped up by upright timbers, and cross-beams wedged in above. The water is pumped out of the mines by a water wheel and chain pump, but these are quite useless in winter, and become covered with enormous icicles.

CORAL ISLANDS.

These islands exist most abundantly in the tropical and sub-tropical parts of the Pacific Ocean. The formation of coral goes on, in favourable circumstances, with wonderful rapidity, for masses of rock have been found to increase in height several feet in a few months. It was at one time supposed that coral polypes began their labours at the bottom of the ocean and reared their pile from its greatest depths; but it has been ascertained that none of them live at depths of more than twenty or thirty fathoms, and most of them are inhabitants of much shallower water. It appears, therefore, that the foundation of their still marvellous structures must be upon rocks that do not reach the surface; probably in most cases volcanic rocks similar to those which, being further upheaved, form the volcanic and other mountainous islands of Polynesia.

Sometimes a volcanic upheaval seems to have taken place after the coral was formed, and this is supposed to have been the origin of the islands, comparatively few in number, called *Crystal Islands*, composed of coral rock more or less modified by the action of air, water, and other agents. Islands of this class sometimes rise to an elevation of 500 feet, and often exhibit precipitous cliffs, and contain extensive caverns. True Coral Islands, or *atolls*, consist merely of a narrow reef of coral surrounding a central lagoon, and very often a narrow reef, perhaps half a mile in breadth, clothed with luxuriant vegetation, bordered by a narrow beach of snowy whiteness, and forming an arc. Many coral islands of considerable extent and population are nowhere more than a few feet above the level of the sea. Reefs also sometimes extend to a great length in a straight line, generally parallel to a coast, the submergence of which they are supposed to indicate. There is such a reef on the east coast of New Holland, extending not less than 350 miles without being broken by a channel.