

ridges usually from 3,000 to 5,000 ft. in height. The valleys are much older than the present drainage system. They have a width of from two to five miles or more, are flat-bottomed, and are floored with glacial deposits. The rivers which occupy them at present flow in narrow secondary valleys seldom excavated to sufficient depth to reach bed-rock.

The great Shakwak valley at the foot of the St. Elias range is an important topographic feature. Its origin is unknown. It is now occupied by a number of different streams and lakes and is crossed transversely by the valley of the Dezadeash. Kluane lake, a large sheet of water 40 miles long and three miles wide, with two arms, one 27 miles in length, is situated in this depression. North-east of the upper end of Kluane lake are the Kluane hills, a worn ridge with an elevation of about 5,000 ft. above the sea. These hills are bordered on the north by the wide

the mountains, by the Kaskawulsh river, heading in the Kaskawulsh glacier, the two streams forming the Alsek river. Jarvis river, like the Dezadeash, also enters the St. Elias range from the lower region bordering it on the north. It is tributary to the Kaskawulsh river and drains the southern slopes of the Ruby range and a portion of the Kluane hills. The White river drainage system is represented by Slims river, the principal feeder of Kluane lake, and by a number of other and smaller streams flowing from the north and south into Kluane lake and its outlet, Kluane river. Slims river heads in the same glacier as the Kaskawulsh river, and the two streams occupy portions of a wide, continuous valley connecting the White river and Alsek drainage systems inside the mountains.

The Alsek river has twice been dammed in comparatively recent times, probably by the extension of



Britannia Smelting Co's Smelter.—In Engine Room. Blowing Engine in Foreground.

valley of Upper Jarvis river, Kloo lake and Cultus creek, beyond which the country rises again into the Ruby range. Farther to the south a prominent elevated mass is enclosed by the Shakwak valley, Dezadeash lake and the great bow which the Dezadeash river makes to the east. The name Dezadeash mountain is proposed for these elevations. The summits of these mountains and the Ruby range reach elevations of about 7,000 ft. above the sea. They probably represent erosion remnants of an old low level plain, since elevated some thousands of feet and partly destroyed.

The drainage of the district flows partly north by way of White river to the Yukon and partly south by the Alsek to the Pacific. Dezadeash river heads in Dezadeash lake, and after making a great bend to the east, turns westward towards the St. Elias, and through it to the sea. It is joined, after entering

glaciers across its valley, and long deep lakes were produced which extended far up the valleys of the Dezadeash and Kaskawulsh rivers. Fresh lake beaches, cut in loose talus slopes and still covered in places with drift wood, line the valley of the Dezadeash at the point where it enters the St. Elias range up to an elevation of 150 ft. above the present water level; older, more worn beaches occur up to an elevation of 300 ft. The older beaches are covered with the ordinary forest growth of the region, and probably date back some hundreds of years, while the younger ones support only a few young spruces, seldom exceeding three inches in diameter, and groves of willows, small aspen and balsam poplar. The upper limit of the young beaches is plainly marked all along the valley of the Dezadeash, up to a point about midway between Marshall river and Canyon river, by this sudden change in the forest