

1903

WHITE PINE RANGE - cont'd.

by a north-south and an east-west system of faults, with minor diagonal ones. Some of these are attended by steep scarps.

In the same district where these scarps occur the folds seem to have directly determined the topography. The Treasure Hill ridge is anticlinal and the valley between it and Pogonip Mountain synclinal. But Mokeamoke Ridge and the ridges to the west are synclinal, with anticlinal valleys, indicating a long-continued erosion period. The folding of the ridges to the west of Mokeamoke Ridge was then distinctly later than that of the ridge itself and later than that of the range in general.

The faults of the mining district appear to belong also to the same recent epoch as the associated folds. Those of Treasure Hill have apparently been affected very little by erosion, and are marked by scarps which seem to represent very closely the vertical displacement. The same seems to be true of the heavy fault which forms the northern end of Pogonip Mountain, which has already been mentioned.

ORES.

(Spurr, 1903, p. 68)

The structurally complicated region around Hamilton has been the site of rich ore deposition. The ores are distinctly connected with the fault fissures and have formed largely in their vicinity. Mr. Hague^a describes the occurrence of the silver deposits of Treasure Hill as (1) in fissures, striking east and west; (2) in deposits between the limestone and shale; (3) in beds or chambers in the limestone and parallel to the stratification of the rock; and (4) in the regular seams or joints across the rock bedding, most frequently with a north-south trend. The minerals found in the mining district comprise quartzite, calcite, gypsum, fluorite, barite, black oxide of manganese, rhodochrosite, cerargyrite, galena, cerussite, and azurite. The district once had a population of many thousand, but at present there is very little activity.

QUINN CANYON AND GRANT RANGES.

The Grant Range is really the southern extension of the White Pine Range, there being no decided break between the two. It has a length from north to south of about 30 miles. The Quinn Canyon Range is closely connected with the Grant Range, being separated only by a narrow rock-cut valley, whose bottom is for the most part comparatively free from detritus. It is, however, offset from the Grant Range to the west. The Quinn Canyon Range is broad and short, having a north-south extent of about 25 miles, and an east-west extent of nearly 20 miles.

TOPOGRAPHY.

The Grant Range consists of a single main ridge, rather flat and broad on top, and cut up deeply by the smaller mountain valleys,

SPURR.]

which run out smaller valleys: steep walls. I west, are also of Garden Valley series of low b

The Quinn west, and narrow ravines which precipitous were cut out of limestone southern part ever, have been usually quite distinct of the valley but not precipitous appears to have northern.

In the foothills to the north of mountain peaks found in a c determined b

These were Immediately Range, the rock an outcrop of found only a tude of the b there is a h Canyon Range north-south c not far from at its north e

On the steep Range the m dark-blue to sequence of organic rem Six hundred comes about once recognized quartzite cor limestone, e

^aU. S. Geol. Expl. Fortieth Par., Vol. III, p. 418