

Range, together with great masses of palæozoic rocks, respecting the structural relations of which very little is as yet known." Considering their position, the character of the rocks, the absence of fossils, their relationship both to the ranges of British Columbia and the southern country (the Cœur d'Alene and Thompson Falls country), I am inclined to call them pre Cambrian or Huronian.

This upheaval occurred in all probability during the Palæozoic period when the rocks to the east constituting the Cambrian (Upper Cambrian?) were upheaved. The denudation so enormous has extended over many geological epochs. The range appears to be intersected with dikes of fine grained diabase, but they were not observed in situ save in one instance. Dynamically considered this fold is of great interest. A series of dips and strikes show a variation from the eastern limit of the fold as follows (taken at Snow Shoe Gulch) :

Strike 20° E. of S.;	Dip 33° S. E.;	Elevat. 3,250 feet, 4 miles from axis.
Strike 15° E. of S.;	Dip 45° E.;	Elevat. 5,000 feet, 300 yds. from axis.
Strike 20° E. of S.;	Dip 67° E.;	Elevat. 5,600 feet, 30 yds. from axis.

There is a number of mellow flexures along the base of the gulch about the central portions of the anticlinal one of 60 ft. in width at its apex, another 100 ft. broad. The rocks take a nearly vertical dip, then dip west as follows :—

Strike 30° E. of S.;	Dip 68° or 70° W.;	100 feet west of vertical.
Strike 36° to 40° E. of S.;	Dip 62° W.;	120 feet west of former.
Strike 36° to 38° E. of S.;	Dip 50° to 48° W.,	200 feet west of former.

The strike is inconstant, the rocks having a tortuous course, due to unequal pressure and crowding together of rocks confined. Faults and short breaks occur, slips in the formation due to fracture produced by the strain of upheaval. It will be seen by the following observations made eight miles north of this point, that the dip increases suddenly to the vertical. The height where I observed them was 3,700 feet, 500 feet above the gulch bottom or Granite Creek. The distance here from the eastern margin of the anticlinal was four miles, a recorded dip at this point being :

Strike 25° E. of S.;	Dip 88° E.,	Centre of anticlinal.
Strike 25° E. of S.;	Dip 50° W.;	100 feet west of above.