

cline is stated to be a magnificent arch of Cambrian, Silurian, and Devonian; the Little Elko, Cortez, Shoshone, Pah-Ute, and other ranges. The same flexed condition of the beds is mentioned by I. C. Russell as existing in the ranges of the Oregon part of the Great Basin.

The ranges of the Great Basin have many faults as well as flexures, as described by Gilbert in 1876; and these faults are generally downthrow faults. The following are two of his figures; they illustrate two ridges made up of blocks displaced as described. The dip and the downthrow faults are in opposite directions.

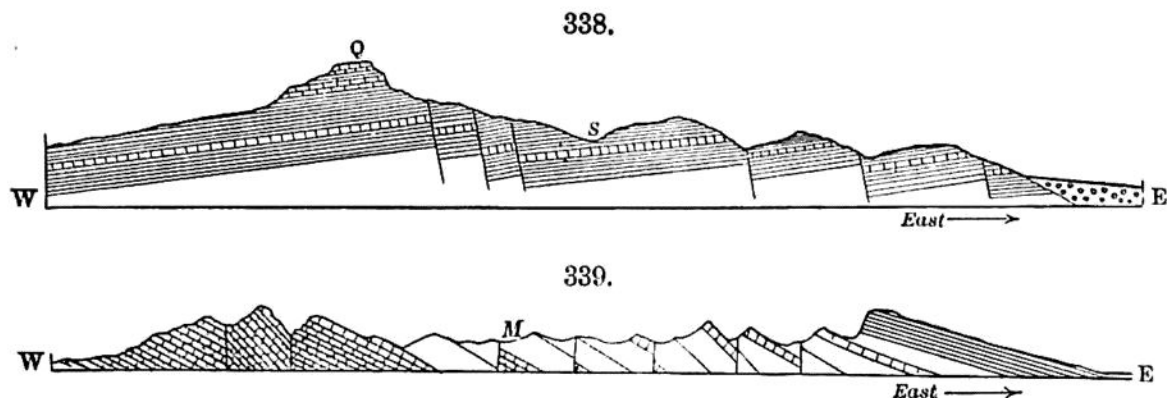


Fig. 338, section of Pahrnagat Range at Silver Cañon, southern Nevada, scale 50000. Fig. 339, section of Timpahute Range, west of the Pahrnagat, scale 75000. Gilbert, '76.

Gilbert, in view of the great displacements by nearly vertical and largely downthrow faults, designated the system of mountain-forming movements the "Great Basin System." He shows that the displacements are along old fault planes, and also along new planes of fracture made in the course of the Tertiary era, and later.

Great displacements along old and new fault planes have been shown to have taken place also in the high plateaus of Utah and in the Uinta Mountains, others in the Wasatch, and still others in the Sierra Nevada, which are referred to the Great Basin System. The fact of such movements extending into recent time has been urged by Powell, Gilbert, Russell, Le Conte, Diller, and others.

The *ridges* of the Great Basin, made thus of upturned and plicated rocks, have been assumed to be each limited by faults, and to have undergone up and down movements, and variously tilting displacements, and thus to have become in effect "monoclinal orographic blocks" in the "Basin System," — each block making by itself a monoclinal mountain, even when not so in its bedding (Russell, 1885). In the ideal sections made to illustrate this hypothesis, the wide intervals of alluvium (that is, of buried and concealed rock) are represented as underlaid each by a block at lower level, or by the subterranean continuance of one sloping ridge to the next; and the actual flexures or lines of bedding have been omitted, and monoclinical lines substituted. They are intended to exhibit the supposed structure. But until the stratigraphy of the ridges of the whole basin shall have been studied and sections of them represented, and the relations of each ridge to those lying on the same northward or northwestward line of strike shall have been thoroughly investigated, general stratigraphic conclusions cannot be safely drawn.