Claiborne County is in north-central East Tennessee. The Kentucky and Virginia State lines form its northern border. About one-fifth of the county is part of Cumberland Block, a distinct subregion of the Cumberland Plateau found primarily to the southwest in Campbell County. Although some of the rock units have been faulted and folded, much of the Pennsylvanian-age strata in this subregion consist of horizontal beds of sandstones, shales, conglomerates, and slates, along with coal seams of some economic importance. The other four-fifths of the county lies in the Valley and Ridge. Although some rock units have been faulted and folded, most of them in this part of the county are nearly horizontal. Cambrian and Ordovician dolomites are the dominant strata. Elevations of the ridges and peaks in the block part of the county are 1,800 to over 2,500 feet, with Bryson Mountain, the highest, a little over 3,200 feet.