

PENNSYLVANIAN ROCKS OF MADISON AND
ST. CLAIR COUNTIES, ILLINOIS

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Madison and St. Clair counties lie on the western edge of the Eastern Interior coal field. The contact of the Pennsylvanian and Mississippian systems crosses western St. Clair County and western Madison County, touching the Mississippi bluffs near Alton. It lies concealed beneath recent alluvial sediments in the American bottoms. A large outlier of the Eastern Interior coal field occurs in the eastern part of St. Louis County, Missouri. The succession of Pennsylvanian strata exposed in these counties ranges through the Pottsville, Carbondale, and lower McLeansboro formations or from the Babylon to Macoupin cyclothems of the classification introduced by the writer and J. M. Weller. The succession of strata in this district are abnormally thin, due to the influence of a weakly positive area along the eastern flank of the Ozarks which, during most of the Pennsylvanian period, stood above the profile of equilibrium and did not receive as thick accumulations of sediment as the trough to the east. The St. Louis area lay rather on the southwest edge of this Ozark flank, and its effect on sedimentation is even more pronounced northward, in Jersey, Greene, Pike, Calhoun, Brown and Adams counties. Southward from the St. Louis region, and even in the eastern parts of Madison and St. Clair counties, the section of strata thickens notably, and in southeastern Illinois the zone represented in these counties by less than 500 feet of sediments is represented by over 2000 feet. Shales, sandstones and coals are the strata which have thinned most notably in this area, and limestones and more or less refractory clays make a much larger portion of the section than elsewhere.