

Quaternary .....	100 to 120 feet.	
Coal Measures.	Sandstone and shale.....	20 to 40 "
	Band of limestone.....	2 "
	Bituminous shale—Coal No. 2?.....	2 to 3 "
	Sandstone and shale.....	30 to 40 "
	Bituminous shale.....	1 to 4 "
	Coal (Exeter seam) No. 1.....	2½ to 3 "
	Dark-blue clay shale.....	2 to 3 "
	Compact dark-blue limestone.....	3 to 4 "
	Light-gray clay shale, or potter's clay.....	10 to 12 "
	Shaly sandstone and conglomerate, with bands of iron ore, and locally a thin seam of coal.....	6 to 15 "
Lower Car. Limestone.	St. Louis limestone.....	20 to 40 "
	Keokuk limestone.....	75 to 100 "
	Burlington limestone.....	100 to 120 "

The Quaternary deposits in this county present the same general features as those noticed in the report on the adjoining county of Greene; and it is therefore unnecessary to repeat them here. The Loess caps the river bluffs, and often reaches a thickness of forty to sixty feet, forming bald grassy knobs along their summits.

*Coal Measures.*—The strata belonging to the Coal Measures in this county have an aggregate thickness at their outcrop of about one hundred and thirty feet, and include the horizon of two or three coal-seams, only one of which, however, promises to be of any considerable value here. The sandstone overlying the Exeter coal outcrops on all the streams in the eastern portion of the county; and the full thickness of the measures above this seam may be estimated at from eighty to ninety feet. This thickness includes a bed of bituminous shale, which probably represents the horizon of the Burrows coal, in Greene county, and perhaps, also, the Neelyville coal, in Morgan county. Those desirous of mining the Exeter coal, in the east part of the county, will have to sink a shaft through these sandstones, and also the overlying Drift, which will comprise a variable thickness of from seventy-five to two hundred feet of strata. On a small branch east of Manchester, we found the upper sandstone represented in the foregoing section well exposed, including the upper bituminous shale. The measures here consist of about thirty or forty feet of sandy shale, with a single stratum of hard micaceous sandstone, about a foot in thickness. There was also a partial exposure of a band of limestone, underlain by bituminous shale.

The Exeter coal has been opened at various points along its line of outcrop in this county. Tuft's coal mine is on the Big Sandy, two miles east of Winchester. The coal is here about three feet in thickness, with a good roof of bituminous shale from three to four feet thick. It is underlain by shaly clay from two to three feet thick, and also by the steel-gray nodular limestone already mentioned as underlying this seam on Birch creek, in Greene county.