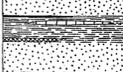
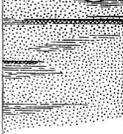


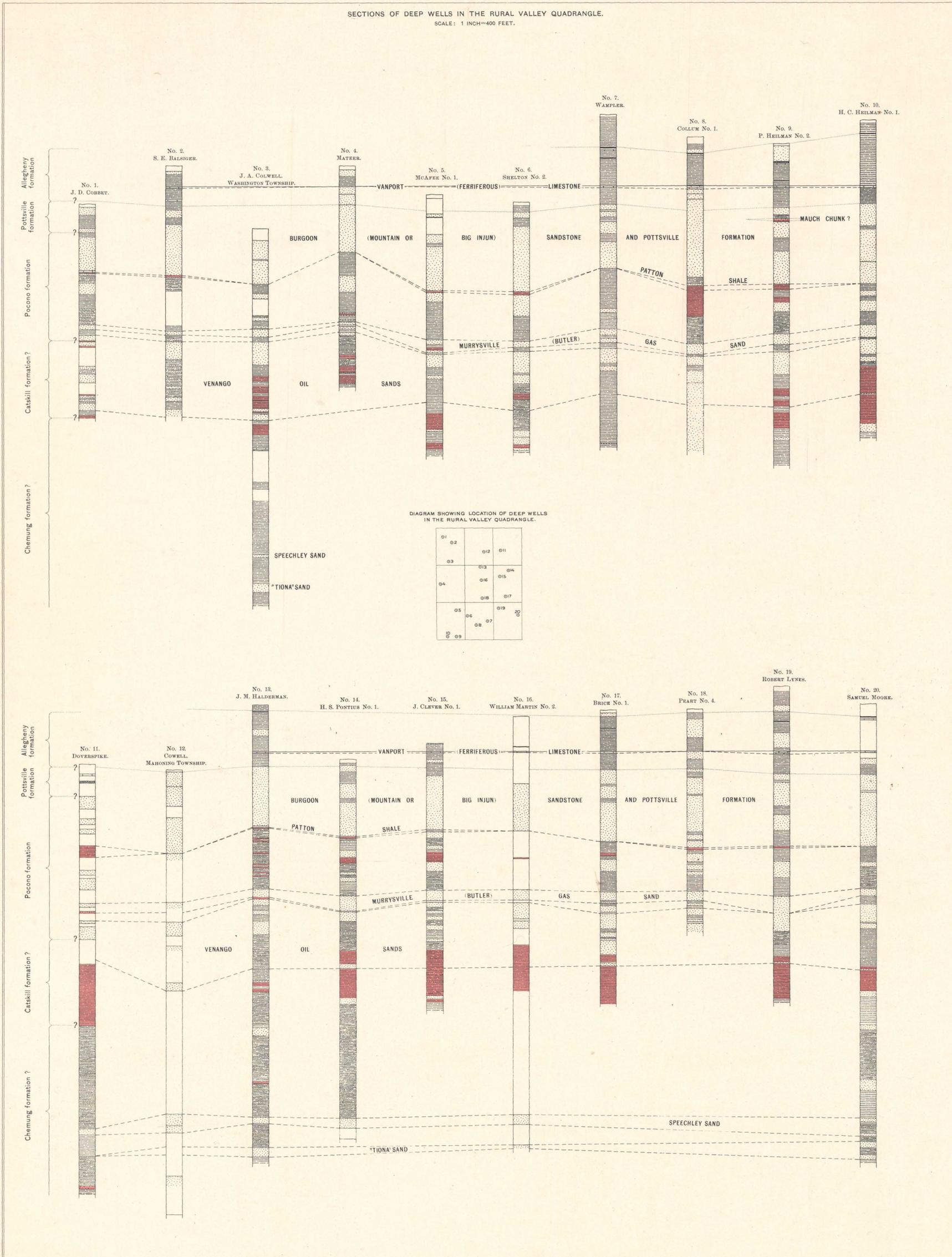
COLUMNAR SECTION

GENERALIZED SECTION FOR THE RURAL VALLEY QUADRANGLE.								
SCALE: 1 INCH=200 FEET.								
SYSTEM.	SERIES.	FORMATION NAME.	SYMBOL.	COLUMNAR SECTION.	THICKNESS IN FEET.	NAMES OF MEMBERS.	CHARACTER AND DISTRIBUTION OF MEMBERS.	GENERAL CHARACTER OF FORMATION.
CARBONIFEROUS	PENNSYLVANIAN	Conemaugh formation.	Ccm		450	Morgantown ? sandstone.	Coarse; 10 to 20 feet thick. Southeast corner of quadrangle.	Shale and coarse sandstone with occasionally thin beds of limestone and coal. Most of the shale is sandy, but there are some prominent beds of green and red fine-grained clay shale which give a distinct color to the soil on their outcrop. The lower half of the formation is prevalingly sandy and carries several beds of coarse sandstone or conglomerate.
						Red shale.	0 to 20 feet thick. May consist of several thin beds locally in southern and eastern parts.	
						Saltsburg ? sandstone.	Soft, friable, and thin bedded; 0 to 20 feet thick.	
						Brush Creek coal.	Usually thin. Locally 2 feet 6 inches thick.	
						Mahoning sandstone.	Generally thin. Coarse and 40 feet thick in northeastern part.	
		Allegheny formation.	Ca		300-350	Upper Freeport coal. Butler sandstone. Lower Freeport coal. Freeport sandstone. Upper Kittanning coal.	Generally 3 to 4 feet thick. Limestone locally developed, 0 to 10 feet thick. Sandstone coarse and in lenses. Locally 2 feet 6 inches to 4 feet thick. Coarse sandstone, locally developed, 0 to 30 feet thick. Generally thin; thickens locally into pot-like deposits and known as "pot vein."	Shale, sandstone, fire clay, and coal beds. Shale predominates. Sandstone is generally thin bedded and shaly, but in places is coarse and massive. Several valuable coal beds. Fire clay is generally present and of great value. Iron ore and limestone valuable.
Middle Kittanning coal.	Generally thin. Locally 2 to 3 feet thick.							
						Lower Kittanning coal. Kittanning sandstone. Vanport limestone.	3 to 4 feet thick in western part. Generally thinner elsewhere. Lenses of coarse sandstone. Blue; 8 to 10 feet thick. Generally present and overlain by iron ore.	
						Clarion coal and clay. Craigsville coal. Clarion sandstone. Brookville coal.	Coal thin and worthless. Clay 0 to 6 feet thick and valuable. Thin and worthless. Coarse and massive sandstone, locally developed, 0 to 25 feet thick. Generally worthless. Locally workable.	
		UNCONFORMITY				Homewood sandstone.	Generally coarse; 20 to 30 feet thick.	
		Pottsville formation.	Cpv		140	Mercer shale.	Shale with coal, limestone, and clay, 40 feet thick. Flint and plastic clay locally 8 to 13 feet thick and valuable.	Coarse, siliceous sandstone or conglomerate, sometimes massive, with intermediate shale carrying clay and coal.
						Connoquenessing sandstone.	Coarse and heavy; 40 to 50 feet thick.	
MISSISSIPPIAN		Pocono formation.	Cpo		225+	Burgoon (Mountain or Big Injun) sandstone.		Coarse, massive sandstone broken by shale. 300 to 400 feet thick. 225 feet exposed.

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Geologist.

WELL SECTIONS

SECTIONS OF DEEP WELLS IN THE RURAL VALLEY QUADRANGLE.
SCALE: 1 INCH=400 FEET.



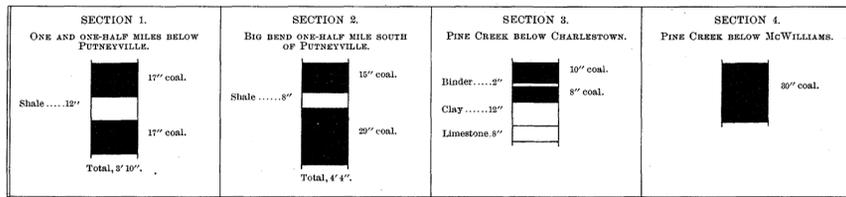
CHARLES BUTTS,
Geologist.

COAL SECTIONS

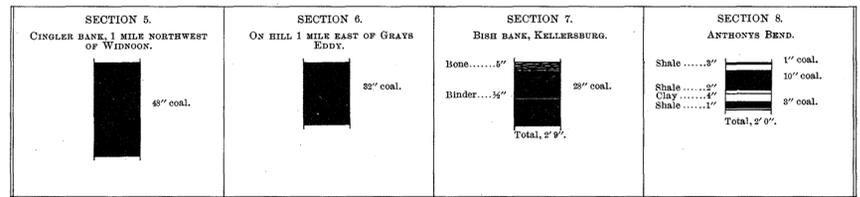
SECTIONS OF COAL SEAMS IN RURAL VALLEY QUADRANGLE.

SCALE: 1 INCH = 5 FEET.

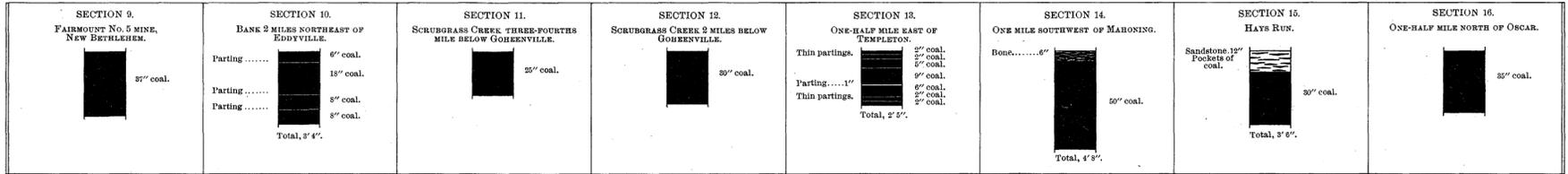
BROOKVILLE COAL.



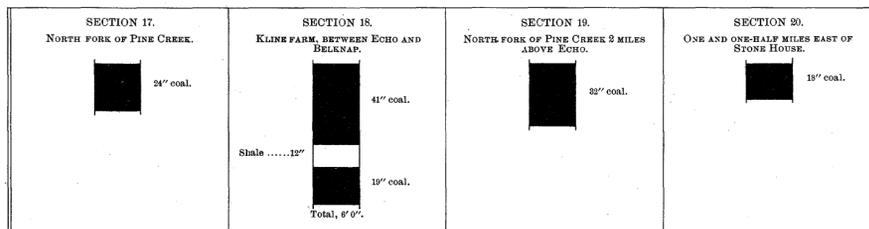
LOWER KITTANNING COAL.



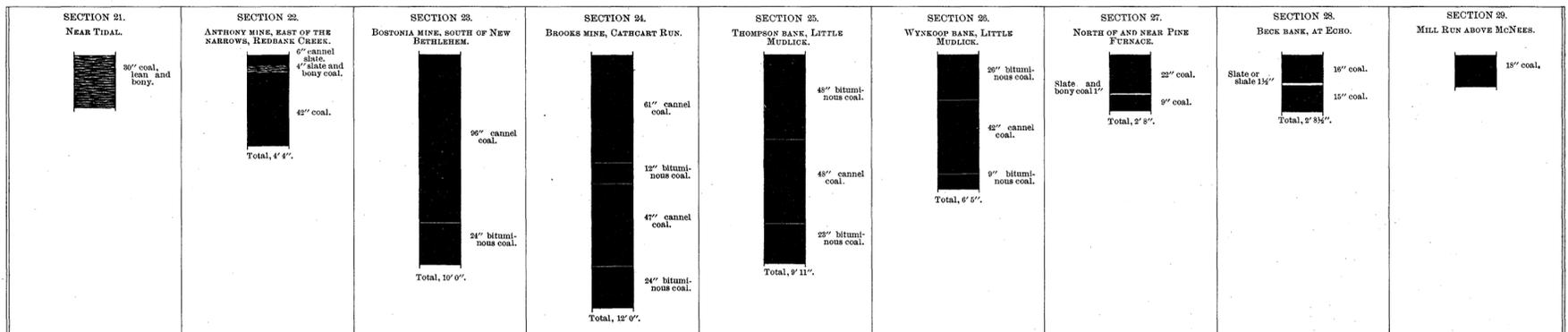
LOWER KITTANNING COAL.



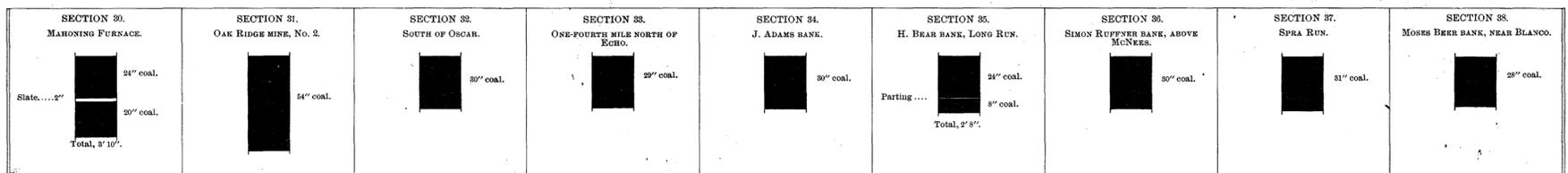
MIDDLE KITTANNING COAL.



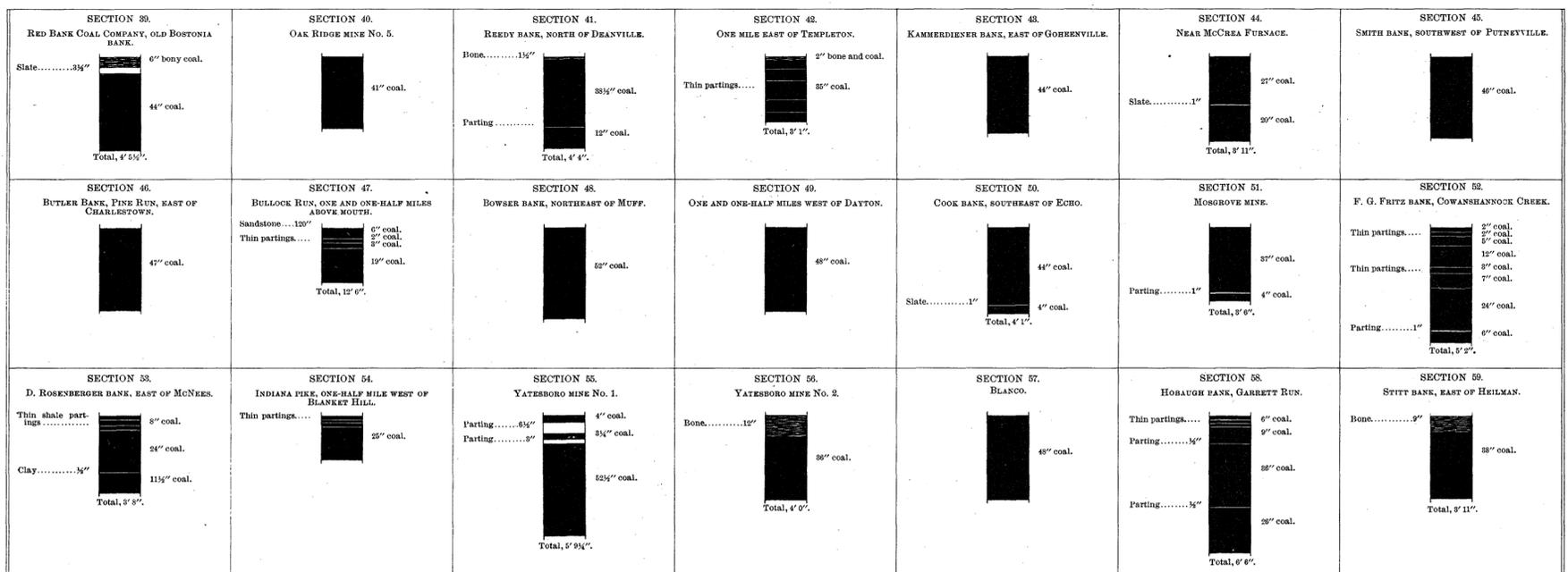
UPPER KITTANNING COAL.



LOWER FREEPORT COAL.



UPPER FREEPORT COAL.



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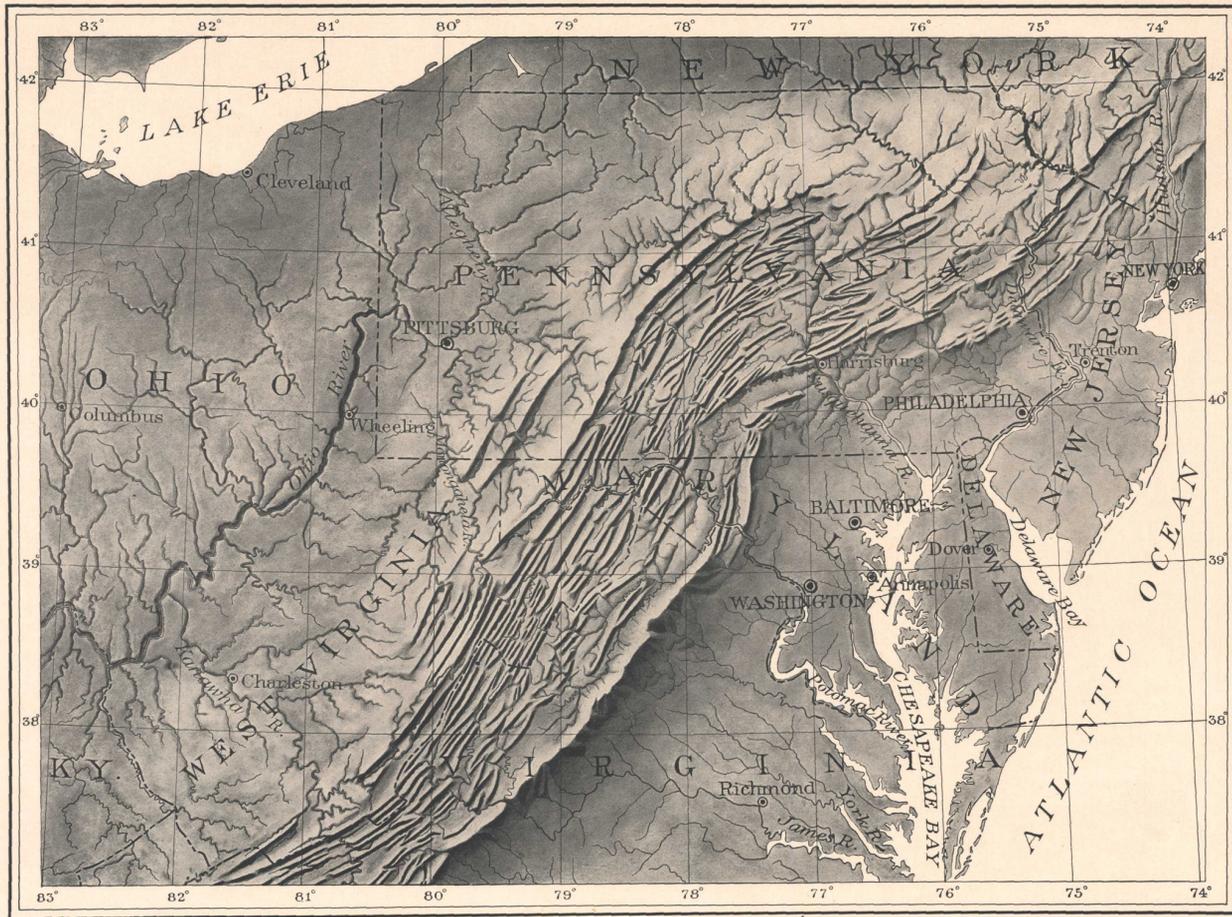


FIG. 6.—RELIEF MAP OF THE NORTHERN APPALACHIAN MOUNTAINS.

The Rural Valley quadrangle is situated on the plateau west of the belt or valley ridges, in the west-central part of Pennsylvania.

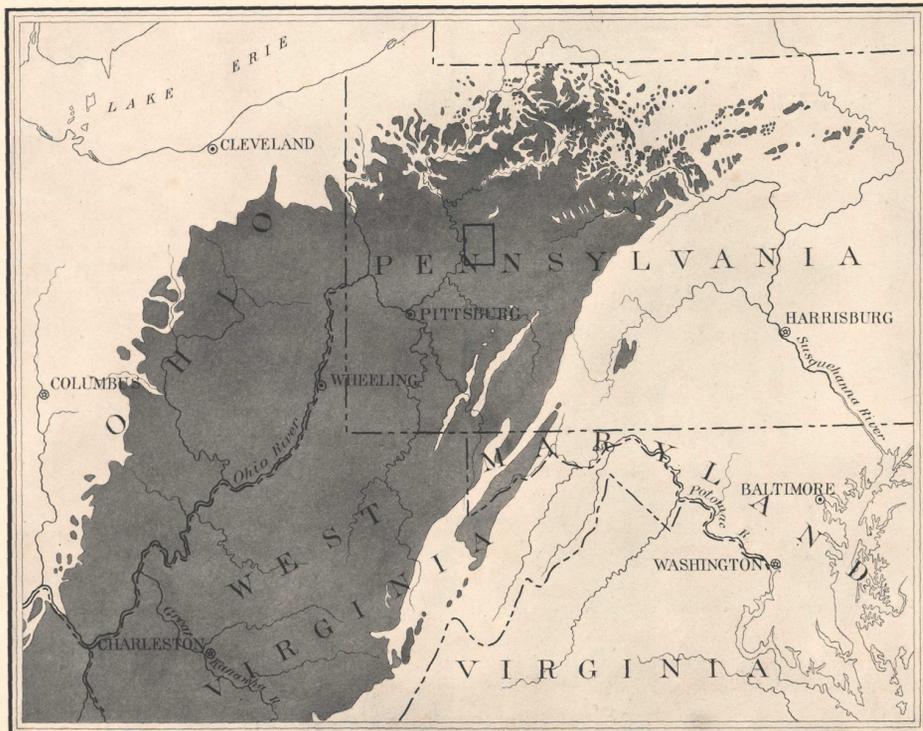


FIG. 7.—MAP SHOWING THE EXTENT OF THE NORTHERN PART OF THE APPALACHIAN COAL FIELD.

The position of the Rural Valley quadrangle within the field is shown by the rectangle.

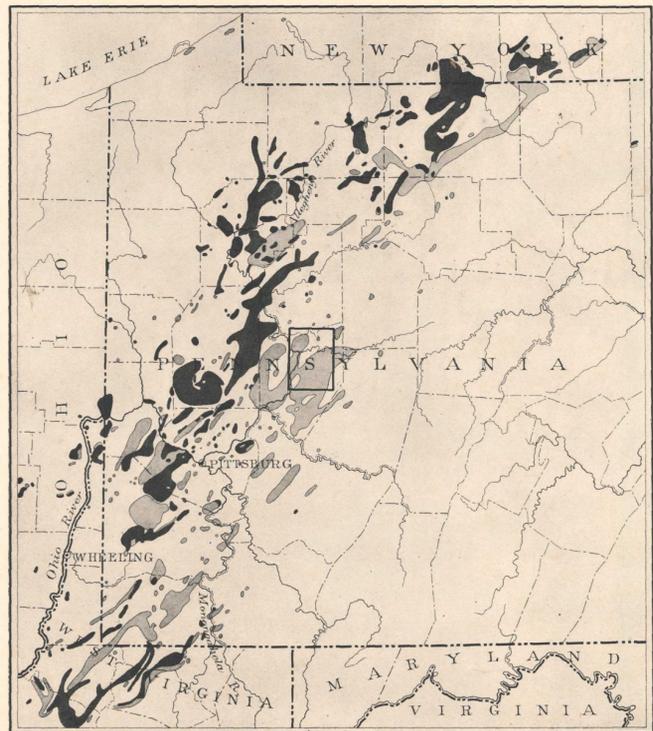


FIG. 8.—MAP SHOWING THE DISTRIBUTION OF THE GAS AND OIL POOLS IN WESTERN PENNSYLVANIA.

Compiled from map by the Second Geological Survey of Pennsylvania, and from maps by the United States Geological Survey. Dark areas, oil; lighter areas, gas. The location of the Rural Valley quadrangle is shown by the rectangle.