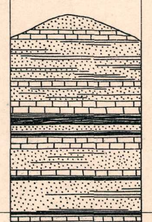
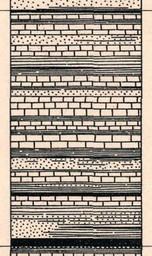
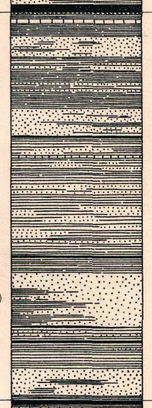
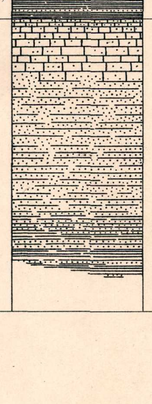
COLUMNAR SECTION SHEET

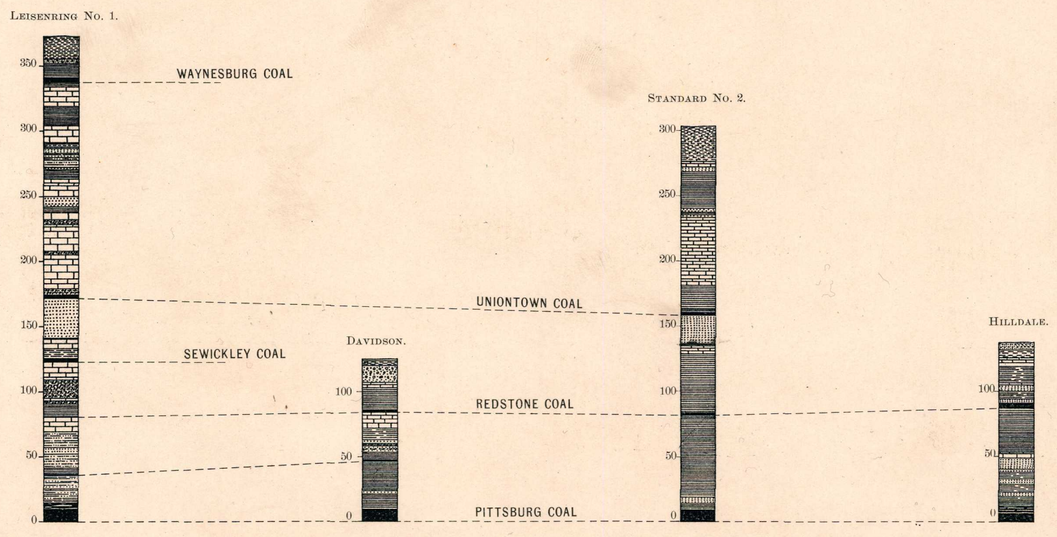
GENERALIZED SECTION FOR THE BROWNSVILLE AND CONNELLSVILLE QUADRANGLES.

SCALE:: 1 INCH = 200 FEET.

Period.		Formation Name.	Symbol.	Columnar Section.	Thickness in Feet.	Names of Members.	Character and Distribution of Members.	General Character of Formation.
CARBONIFEROUS	PERMIAN?	Dunkard formation.	Cd		300+	Washington coal.	Attains a thickness of 8 to 10 feet, but is broken by many shale partings and contains a large percentage of bony coal.	Coarse, friable sandstone and sandy shale; many thin beds of blue or buff limestone; and several beds of coal, mostly thin and only locally workable. The formation is 1000 feet thick in Greene County, but only the lower 300 feet are present in the deepest synclines of this district.
						Waynesburg "A" coal.	Generally thin and valueless.	
						Waynesburg sandstone.	Usually coarse, friable, and mottled by iron stains; sometimes micaceous and flaggy.	
		Monongahela formation.	Cm		310–400	Waynesburg coal.	Ranges in thickness from 3 to 7 feet, but is badly broken by partings. Generally high in sulphur and ash.	Prevailingly calcareous. Massive limestone 140 to 160 feet thick near middle of formation and thin beds of limestone both above and below. Considerable shale interbedded with the limestones. Occasionally coarse sandstone near the top and bottom of the formation. Waynesburg coal at the top and Pittsburg coal at the base.
						Uniontown coal.	Thin and apparently worthless.	
						Benwood limestone.	Hard, blue, non-fossiliferous limestone, interbedded with shale. Makes good lime for agricultural purposes.	
						Sewickley coal.	0 to 3 feet thick. Not mined.	
						Redstone coal.	2 to 4 feet thick, but is disturbed by clay veins and horsebacks. Persistent and of good quality.	
						Pittsburg coal.	7 to 10 feet thick. Remarkably persistent and uniform. Two divisions separated by clay. Lower division only mined.	
	PENNSYLVANIAN	Conemaugh formation.	Ccm		600	Connellsville sandstone.	Generally flaggy and rather persistent. 10 to 20 feet thick.	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 prevailingly sandy, carrying several beds of coarse sandstone or conglomerate.
						Morgantown sandstone.	Coarse and thick bedded, but in places changing into shale and flaggy sandstone. 20 to 40 feet thick.	
						Ames (crinoidal) limestone.	Greenish-gray limestone, 4 feet thick, with many crinoid plates.	
			(Css)			Saltsburg sandstone.	Coarse and thick-bedded, occasionally massive. Changes to shale northward and disappears. 30 to 70 feet thick.	
						Mahoning sandstone.	Flaggy, rather fine-grained sandstone. Coarser and heavier locally.	
		Allegheny formation.	Ca		280	Upper Freeport coal.	3 to 7 feet thick. Fair quality.	Shale, sandstone, fire clay, and coal beds. Shale predominates. Sandstone is generally thin bedded and shaly, but in places is coarse and massive. Coal beds are promising but at present are not developed. Fire clay is generally present and of great value.
						Bolivar fire clay.	Valuable flint and plastic clays. 0 to 20 feet thick.	
						Lower Freeport coal.	Generally thin.	
						Upper Kittanning coal.	Thick coal east of Chestnut Ridge, but little known west of that line.	
						Middle Kittanning coal.	Generally thin and unimportant.	
						Lower Kittanning coal.	Regular in thickness and persistent. 2 to 4 feet thick.	
						Brookville-Clarion coal.	Thin and unimportant.	
		Pottsville sandstone.	Cpv		150	Homewood sandstone.	Coarse, white, hard, siliceous sandstone. Generally massive and sometimes conglomeratic.	*Coarse, siliceous sandstone or conglomerate, sometimes massive,* with intermediate shale carrying iron ore and coal.
						Mercer coal group.	But little known. Associated with iron ore.	
						Conoquenessing sandstone.	Coarse, irregularly-bedded sandstone or conglomerate.	
	MISSISSIPPIAN	Mauch Chunk formation.	Cmc (Cgr)		150	Greenbrier limestone.	Blue, highly fossiliferous limestone. Burns to lime of excellent quality. 20 to 30 feet thick.	Red and green shale with green, flaggy sandstone. Blue, fossiliferous limestone near the base.
		Pocono sandstone.	Cpo		400+	Siliceous limestone.	Blue, siliceous limestone, grading downward into sandstone.	Coarse gray sandstone; grades at the top into siliceous limestone and at the base is interbedded with sandy shale.

SECTIONS OF MINE SHAFTS.

SCALE: 1 INCH = 100 FEET.



MARIUS R. CAMPBELL,
Geologist.

COAL-SECTION SHEET 1

SECTIONS OF COAL BEDS IN THE BROWNSVILLE AND CONNELLSVILLE QUADRANGLES.

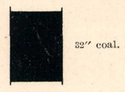
SCALE: 1 INCH = 5 FEET.

BROOKVILLE-CLARION COAL.

FIGURE 4.
VIRGIN RUN.

LOWER KITTANNING COAL.

FIGURE 5.
EAST OF HEMINGER MILLS.



LOWER FREEPORT COAL.

FIGURE 6.
JACKS RUN.

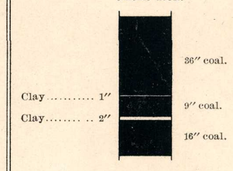
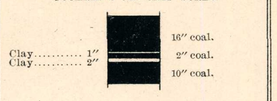


FIGURE 7.
COCHRAN'S OLD SALT WORKS.



UPPER FREEPORT COAL.

FIGURE 8.
SOUTH CONNELLSVILLE.

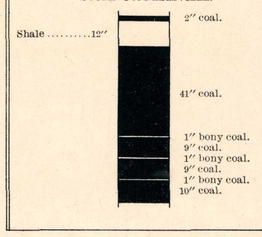


FIGURE 9.
MOYER CLAY PITS.

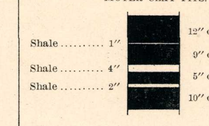
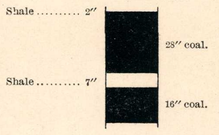


FIGURE 10.
MOYER CLAY PITS.



UPPER FREEPORT COAL.

FIGURE 11.
HEMINGER MILLS.

FIGURE 12.
HEMINGER MILLS.

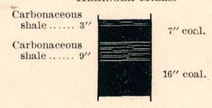


FIGURE 13.
JACOBS CREEK.

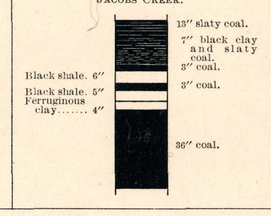


FIGURE 14.
HUNKERS.

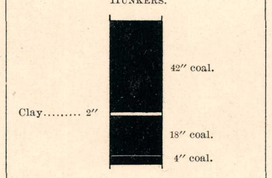


FIGURE 15.
HUNKERS.

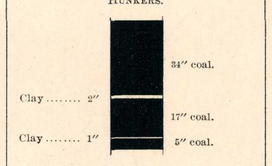


FIGURE 16.
WEST OF HUNKERS.

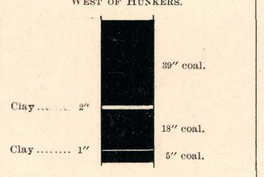


FIGURE 17.
NEAR RUFFSDALE.

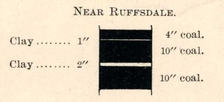
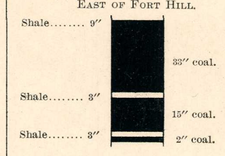
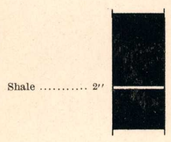


FIGURE 18.
EAST OF FORT HILL.



WILSON RUN COAL.

FIGURE 19.
WILSON RUN.



REDSTONE COAL.

FIGURE 20.
POLLOCK RUN.

FIGURE 21.
BROWNELLER RUN.

FIGURE 22.
LITTLE REDSTONE CREEK.

FIGURE 23.
SHEPPLER AIR SHAFT.

REDSTONE COAL.

FIGURE 24.
WEBSTER.

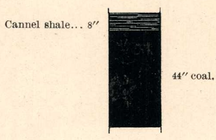


FIGURE 25.
HORNER AND ROBERTS SHAFT.

UNIONTOWN COAL.

FIGURE 26.
BELOW LOCK No. 4.

FIGURE 27.
BLACK DIAMOND MINE.

FIGURE 28.
MOUTH OF MINGO CREEK.

FIGURE 29.
COAL BLUFF.

WAYNESBURG COAL.

FIGURE 30.
LOCK No. 5.

FIGURE 31.
WEST OF BROWNSVILLE

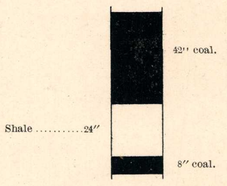


FIGURE 32.
GORBY RUN.

WAYNESBURG COAL.

FIGURE 33.
KREPP KNOB.

FIGURE 34.
SOUTH OF REDSTONE CREEK.

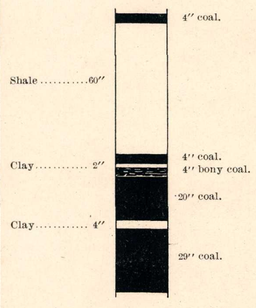


FIGURE 35.
FISHPOT RUN.

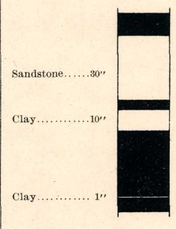


FIGURE 36.
KREPP KNOB.

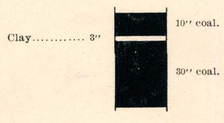


FIGURE 37.
NEAR BENTLEYVILLE.

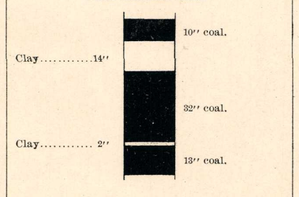


FIGURE 38.
THREE MILES EAST OF BENTLEYVILLE.

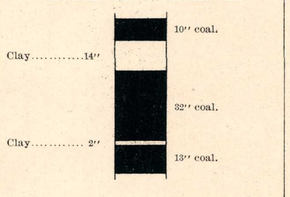
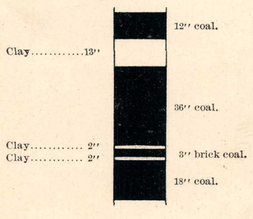


FIGURE 39.
PIKE RUN.



WASHINGTON COAL.

FIGURE 40.
PIKE RUN.

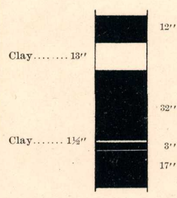


FIGURE 41.
PIKE RUN.

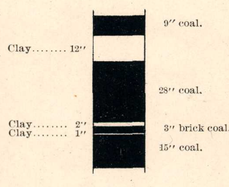


FIGURE 42.
PIKE RUN.

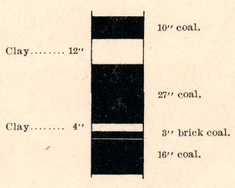


FIGURE 43.
WEST OF PIGEON CREEK.

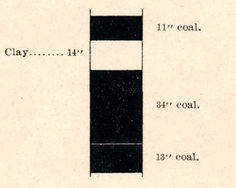


FIGURE 44.
WEST OF PIGEON CREEK.

FIGURE 45.
EAST OF WEST NEWTON.

FIGURE 46.
SHEPPLER HILL.

FIGURE 47.
WEST OF WOODGLEN.

PITTSBURG COAL.

FIGURE 48.
STANDARD MINE.

FIGURE 49.
BUCKEYE MINE.

FIGURE 50.
VALLEY MINE.

FIGURE 51.
ADELAIDE MINE.

FIGURE 52.
LEISENRING No. 1 MINE.

FIGURE 53.
HERMINIE MINE.

FIGURE 54.
YOUGHIOGHENY No. 4 MINE.

COAL-SECTION SHEET 2

SECTIONS OF COAL BEDS IN THE BROWNSVILLE AND CONNELLSVILLE QUADRANGLES.

SCALE: 1 INCH = 5 FEET.

PITTSBURG COAL.

FIGURE 55.
POLLOCK RUN.

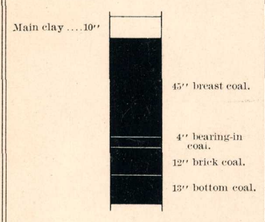


FIGURE 56.
ROBERTSON'S MINE.

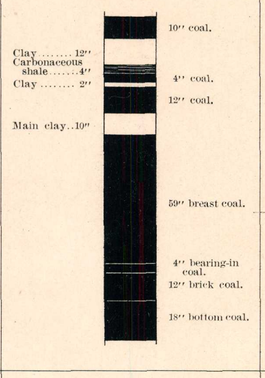


FIGURE 57.
BANNING.

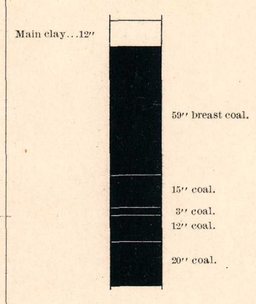


FIGURE 58.
RAINBOW MINE.

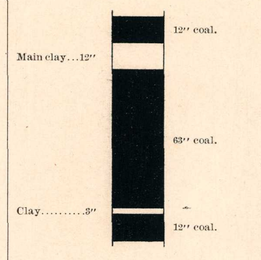


FIGURE 59.
NEAR PERRYOPOLIS.

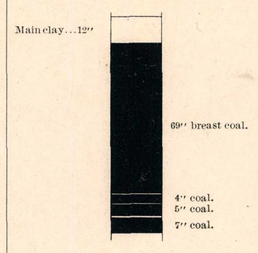


FIGURE 60.
STICKEL HOLLOW.

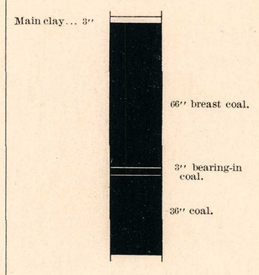


FIGURE 61.
CRABAPPLE RUN.

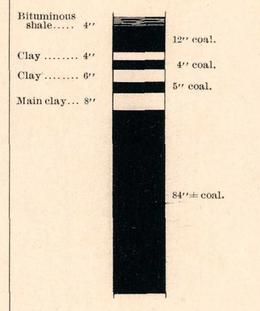


FIGURE 62.
DUNLAP CREEK.

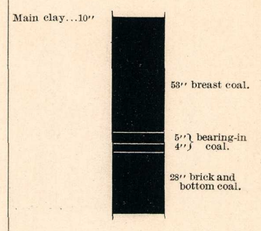


FIGURE 63.
UMPIRE MINE.

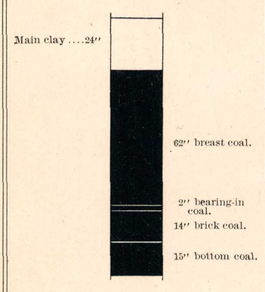


FIGURE 64.
ALBANY MINE.

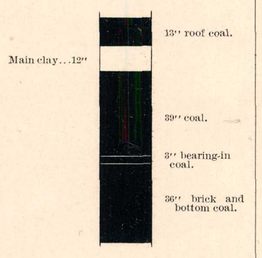


FIGURE 65.
OPPOSITE CALIFORNIA.

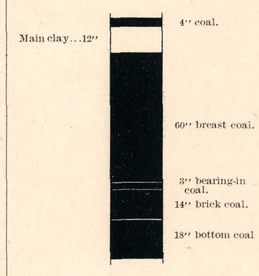


FIGURE 66.
SNOW HILL MINE.

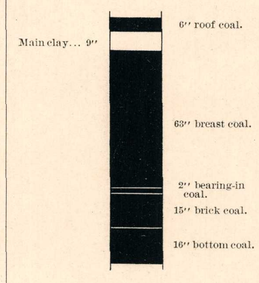


FIGURE 67.
NEAR FAYETTE CITY.

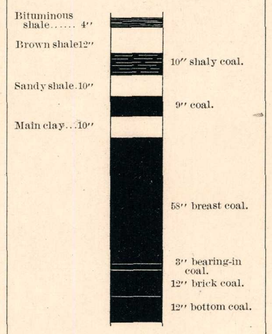


FIGURE 68.
NEAR BELLEVERNON.

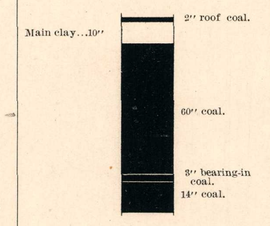


FIGURE 69.
ROSTRAVER MINE.

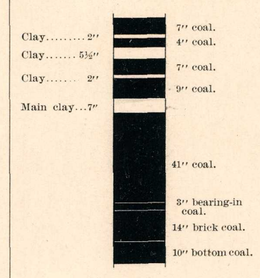


FIGURE 70.
SHEPPLER MINE.

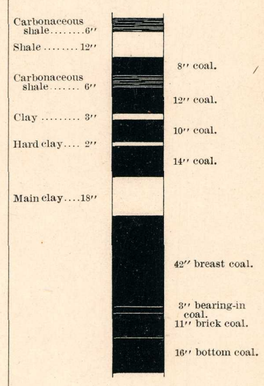


FIGURE 71.
WEBSTER.

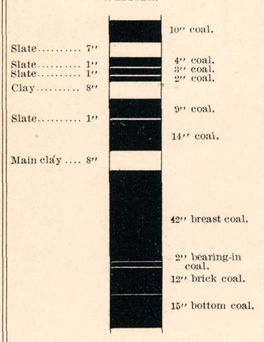


FIGURE 72.
BECKET MINE.

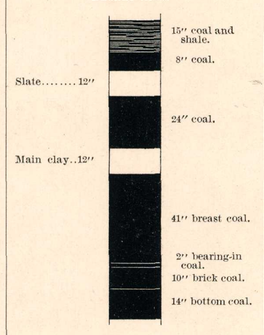


FIGURE 73.
GALLATIN MINE.

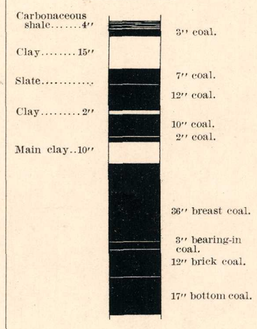


FIGURE 74.
OLD EAGLE MINE.

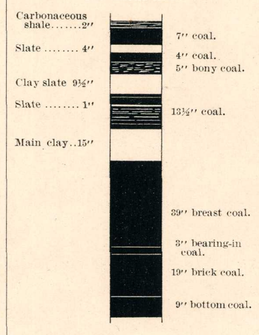


FIGURE 75.
PARKE MINE.

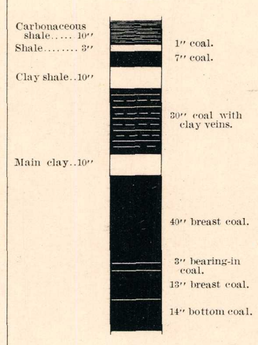


FIGURE 76.
HORNER AND ROBERTS.

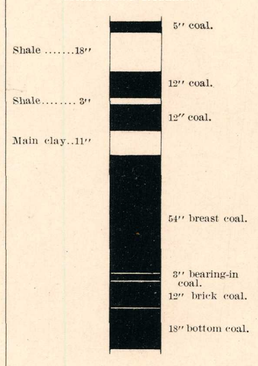


FIGURE 77.
HORNER AND ROBERTS.

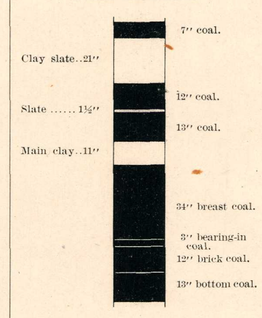


FIGURE 78.
NEAR RIVERVILLE.

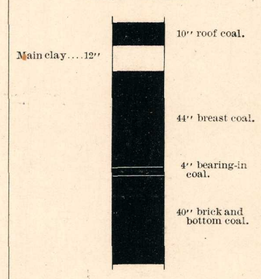


FIGURE 79.
FOX MINE.

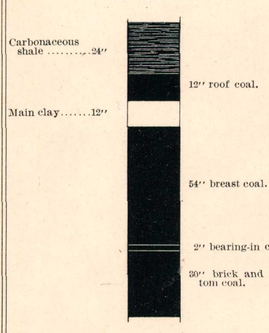


FIGURE 80.
KNOB MINE.

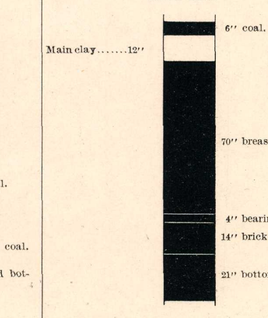


FIGURE 81.
NEAR COAL CENTER.

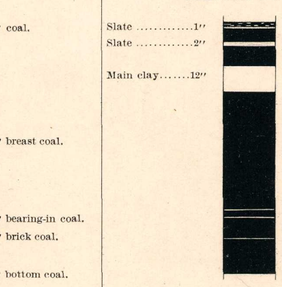


FIGURE 82.
CALEDONIA MINE.

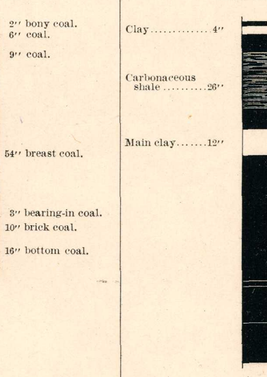


FIGURE 83.
CLIPPER MINE.

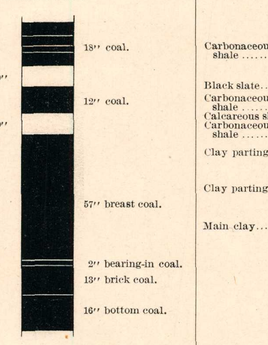


FIGURE 84.
BLACK DIAMOND MINE.

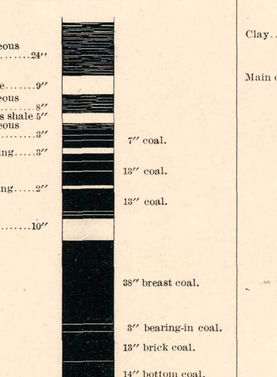


FIGURE 85.
PIKE RUN.

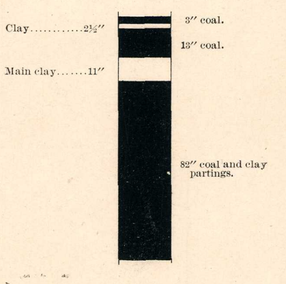


FIGURE 86.
PIKE RUN.

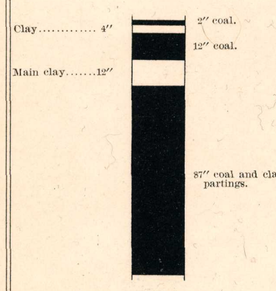


FIGURE 87.
PIKE RUN.

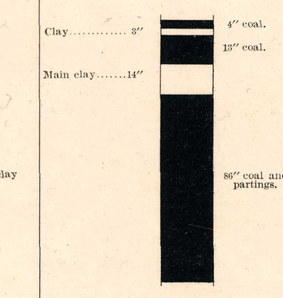


FIGURE 88.
PIKE RUN.

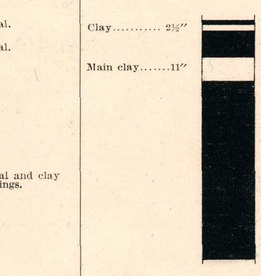


FIGURE 89.
CATSBURG MINE.

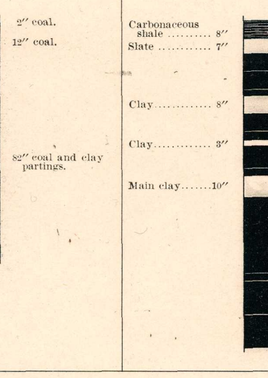


FIGURE 90.
COURTNEY MINE.

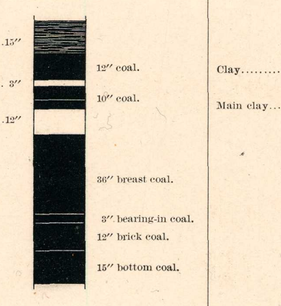


FIGURE 91.
COURTNEY MINE.

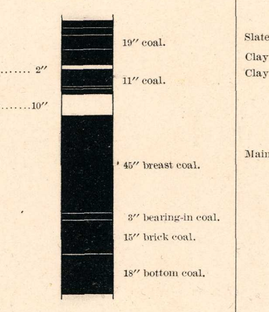


FIGURE 92.
CLIFF MINE.

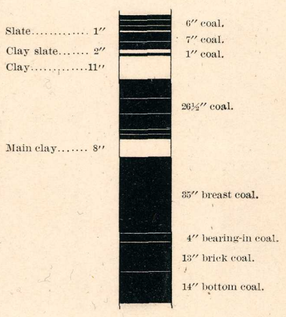


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ILLUSTRATION SHEET

PENNSYLVANIA
BROWNSVILLE–CONNELLSVILLE FOLIO

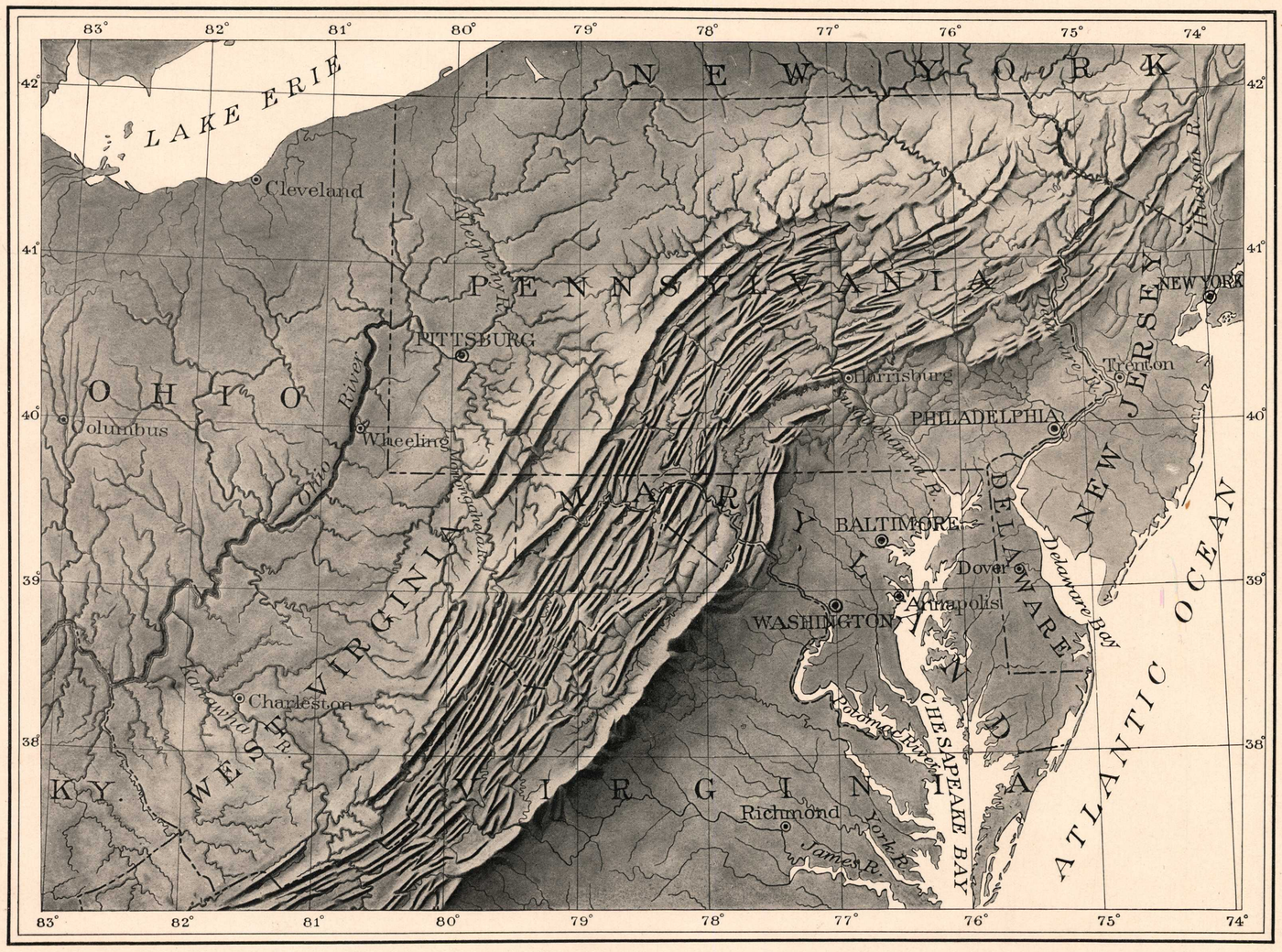

FIG. 93.—RELIEF MAP OF THE NORTHERN APPALACHIAN MOUNTAINS.

The Brownsville and Connellsville quadrangles are situated on the plateau west of the belt of valley ridges, in the southwestern part of Pennsylvania.

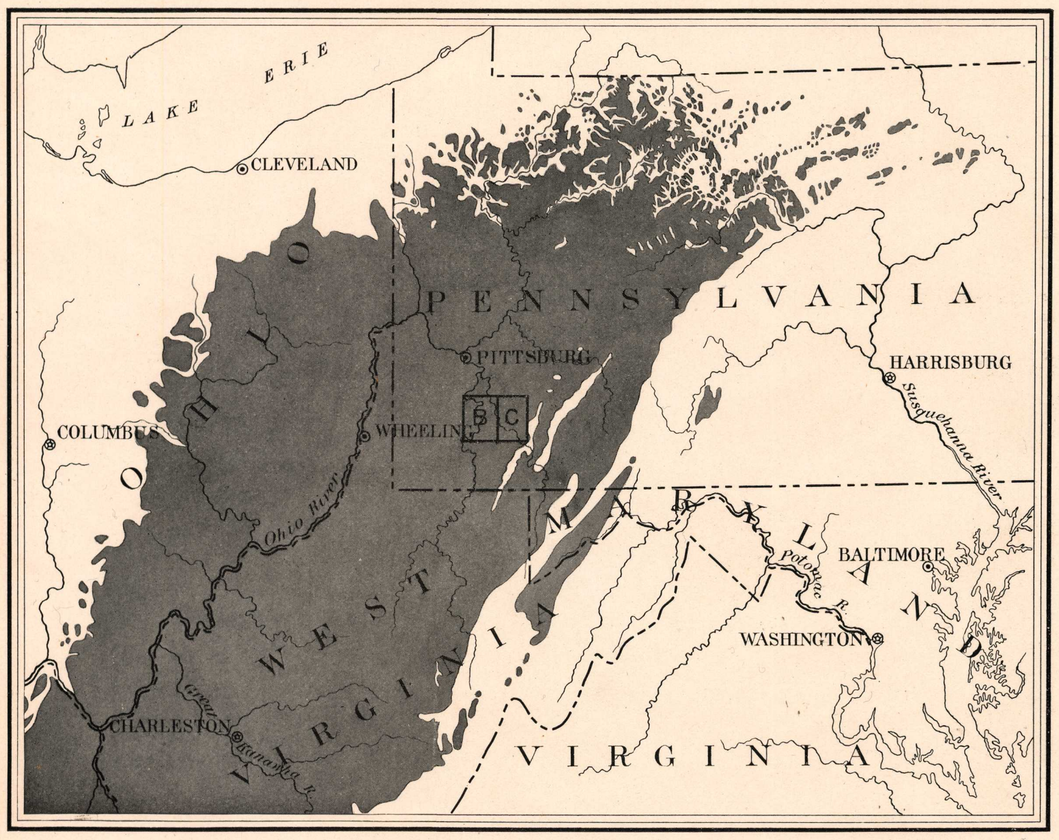

FIG. 94.—MAP SHOWING THE EXTENT OF THE NORTHERN PART OF THE APPALACHIAN COAL FIELD.

The position of the Brownsville and Connellsville quadrangles within the coal field is shown by rectangles.

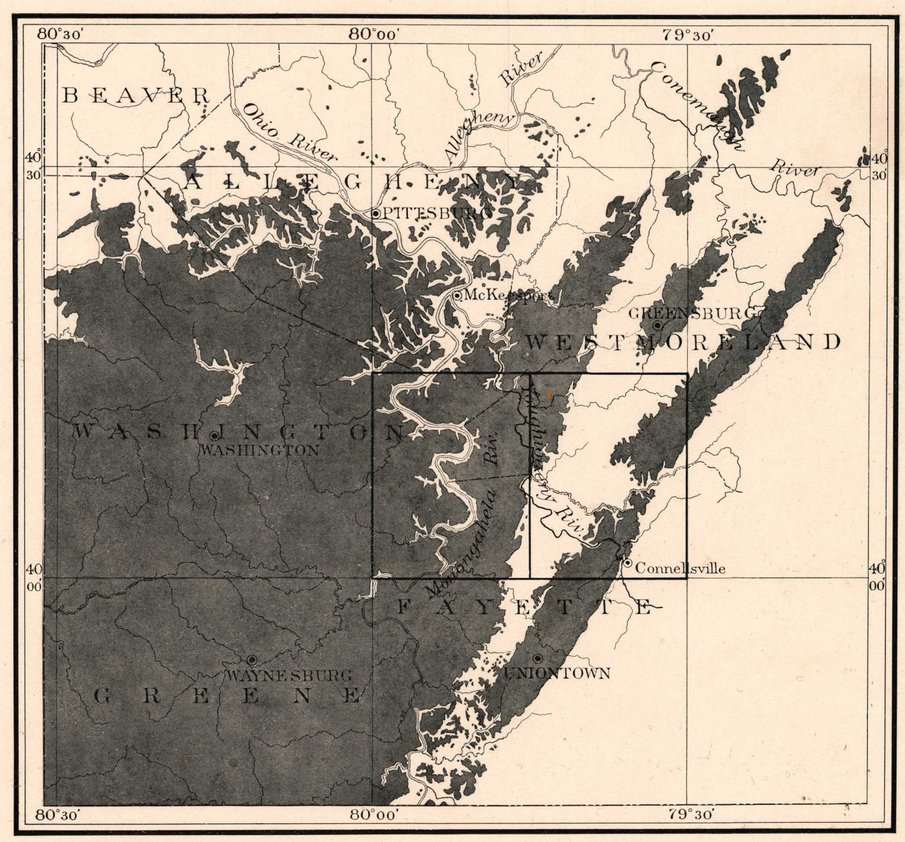

FIG. 95.—MAP SHOWING THE AREA OF THE PITTSBURG COAL IN PENNSYLVANIA.

The Brownsville and Connellsville quadrangles are situated at the eastern border of the Pittsburg coal area, as shown by the rectangles.