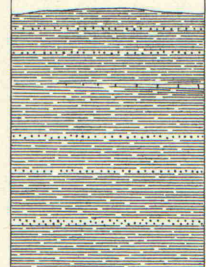
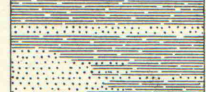
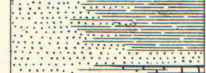
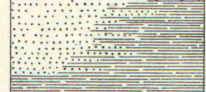


















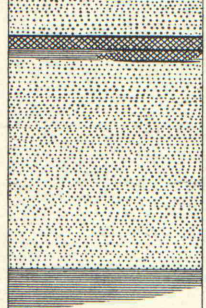
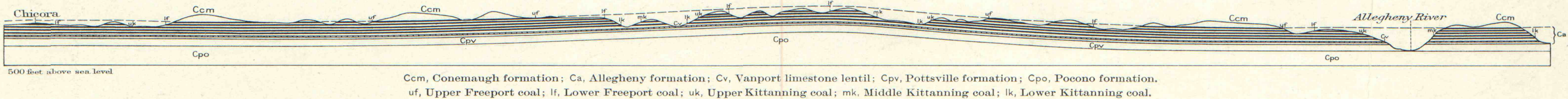


COLUMNAR SECTION

GENERALIZED SECTION FOR THE KITTANNING QUADRANGLE.								
SCALE: 1 INCH = 100 FEET.								
SYSTEM.	SERIES.	FORMATION NAME.	SYMBOL.	COLUMNAR SECTION.	THICKNESS IN FEET.	NAMES OF MEMBERS.	CHARACTER AND DISTRIBUTION OF MEMBERS.	GENERAL CHARACTER OF FORMATIONS.
CARBONIFEROUS	PENNSYLVANIAN	Conemaugh formation.	(Cam)		400+	Ames ("Crinoidal") limestone.	Grayish green, fossiliferous limestone, 2 feet thick. Hills north of Slate Lick.	Chiefly shale of clayey or sandy composition, with thick coarse sandstones and thin coal seams and limestone.
			Ccm			Saltsburg sandstone.	Coarse, thick-bedded sandstone. Excellent quarry rock. Hills in southwest corner of quadrangle.	
			(Csb)			Bakerstown coal.	Thin and worthless. Southwest corner of quadrangle.	
				Brush Creek coals.		Generally thin and worthless, associated with bed of black shale. Underlying limestone rarely found. Occurs in south half of quadrangle.		
			(0-50)	Mahoning sandstone.		Often coarse and thick-bedded or massive; sometimes a thin bed of fine-grained flags. Generally present in some form.		
		Allegheny formation.	Ca		(0-20)	Upper Freeport coal.	Generally present and of minable thickness. Thin and poor occasionally.	
					(0-20)	Upper Freeport limestone.	Usually plaster, rarely flint; probably always present under coal.	
					(0-20)	Upper Freeport sandstone.	Coarse, heavy-bedded sandstone, rarely present.	
					(0-20)	Lower Freeport coal.	Generally thin. Valuable seam along Glade Run.	
					(0-20)	Lower Freeport limestone.	Thin and rarely present.	
	(30-50)			Lower Freeport sandstone.	Generally flaggy and coarse, and heavy-bedded near Fosters Mills.			
	(30-50)			Upper Kittanning coal.	Generally thin and worthless; locally thick and valuable.			
	(0-2)			Middle Kittanning coal.	Not known to be of minable thickness in the quadrangle.			
	(3-4)			Lower Kittanning coal.	Present throughout quadrangle so far as known. The most valuable coal in the area. Underlain by thick, valuable fire clay.			
	(0-40)			Kittanning sandstone.	Coarse and heavy bedded.			
Pottsville formation.	Cpv		(0-20)	Vanport limestone.	Gray fossiliferous limestone, often cut by Kittanning sandstone. Thin seam of iron ore at top.			
				Clarion coal.	Generally thin and of little value. Underlain by valuable fire clay.			
				Clarion sandstone.	Coarse, massive sandstone, rarely present.			
				Craigsville coal.	Local, 3 feet thick or less.			
				Brookville coal.	Thin and worthless.			
UNCONFORMITY								
								Pottsville formation.
		Mercer coals?	Thin and worthless.					
MISSISSIPPIAN		UNCONFORMITY						
								Pocono formation.
Pocono formation.	Cpo		200+		Heavy-bedded gray sandstone, found along the gorge of the Allegheny River and along Red Bank Creek.	Mostly a heavy-bedded sandstone to depth exposed in quadrangle, with small coals, accompanied by shale near top. Underlain by an unknown thickness of shale.		

STRUCTURE SECTION ALONG THE LINE A-A ON THE GEOLOGIC MAPS
HORIZONTAL SCALE: 1 INCH = 1 MILE. VERTICAL SCALE: 1 INCH = 1500 FEET.



CHARLES BUTTS,
Geologist.

IMAPS#10374