ANNUAL REPORT

OF THE

Mine Inspector for Allegany and Garrett Counties Maryland

TO HIS EXCELLENCY

GOVERNOR EDWIN WARFIELD

From May 1, 1906, to May 1, 1907

THOMAS MURPHY, INSPECTOR

1907
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Letter of Transmittal

TO HIS EXCELLENCY, EDWIN WARFIELD,
GOVERNOR OF MARYLAND

SIR : In compliance with the requirements of Chapter 124, of the Acts of the General Assembly of 1902, relating to Mines and Mining, I have the honor to submit herewith my third annual Report.

THOMAS MURPHY,
INSPECTOR

Review and Recommendations

The year 1906 has been one of the most prosperous in the history of coal mining in this State, both in point of tons mined and in number of fatal accidents. In 1906 there was mined in the State 4,880,620 long tons or 5,491,294 short tons; of this tonnage 4,491,390 tons was mined by pick, and 381,230 tons were mined by the use of mach ne. Allegany County produced 4,181,658 tons by pick; 381,230 by the use of machine, all machine coal mined in the State being mined in Allegany County. This is an increase of 218,521 tons. In Garrett County there was mined 317,732 tons all by pick, an increase of 11,210 tons. The increase shown in Garrett County is correspondingly much greater than in Allegany and before many years, with the rapid development and the area of coal that can be reached by drift, will bring the tonnage of the two counties much closer together. As noted in my last report, Ocean No. 7, of the Consolidation Coal Company, surpasses all other mines in point of output, from what is practically one opening. Its production this year was again over 1,000,000 tons. In the production of coal in the State there were engaged 4,412 miners, 401 drivers, 628 inside laborers, 760 outside laborers, making a total employed in coal mining in the State of 6,201, a decrease in the number of persons employed of 29, though this may be due to some inaccuracy of figures furnished by the coal companies.

In the matter of recommendations it seems that there is not much attention, as a rule, paid to them. The safeguarding of the lives and health of employees should always be the paramount object and that form of law or government that comes nearest to that end is the one that we should all aim to reach. I do not believe in any foolish sentimentality because men are miners or because they are as some demagogues express it, "subterranean workers," but because the work they are engaged in is more or less dangerous and that every precaution for the protection of life and health should be taken. I do not believe it should be necessary to have great calamities before we take the proper precautions. It is true this arouses public sentiment on the subject and then politicians will very often unfortunately for the good of the industry control, not only the enacting of the laws relating thereto, but sometimes their enforcement. They pass some kind of legislation to satisfy public clamor, and when it is dissected, it often proves a delusion and a snare resulting in no particular good to any one engaged in the industry. More attention should be given to the recommendations of the people who are responsible, than to politicians whose aim is sometimes to befog the public mind.

I have reiterated in previous reports the necessity for amendment to the present mining laws, and as I become more and more familiar with the work of inspection, this appeals more strongly to me. The ventilation in the mines of the State, while greatly improved, in late years, yet there are certain conditions that are surely creeping into mining here, that will undoubtedly increase the danger. I refer particularly to the reckless use of explosives; this is the most serious question in the mining industry today. The cause for this is perhaps two-fold: first, that mine owners want to increase the miners' capacity, and sometimes the reasons for this are not altogether unselfish. Second, the miner wants to earn all he can with the least possible resistance, consequently the practice is fast creeping upon us regardless of the dangerous possibilities with which it is pregnant. It is better to take this question up intelligently now than to defer it until some time later on, when mayhap some great disaster strikes us. There should be prohibited by law the taking into the mine of 25 pound kegs of blasting powder. The amount taken in should be but enough for one shift or day's work; this should be made imperative; no blasting out of the solid should be permitted; every miner should be forced to prepare his coal before blasting under heavy penalty. Coal companies should not be permitted to blast indiscriminately where they have machines to undercut the coal. This, and mines where they make no attempt to prepare the coal, but simply bore a hole and put a large blast of powder, sometimes as much as three feet long, is rapidly producing a condition in some Maryland mines similar to that in adjoining States where explosions are horribly frequent. There are some that contend that more air is the remedy and while there should be a much higher minimum amount of air per man—say double the amount—where blasting is done out of the solid, or in mines and headings where machines are in use, yet this does not by any means eliminate the danger of which I speak. That is why I believe all shot firing should be done under the strictest supervision, and generally after the miners have done their day's work and left the mine. This may result in some little loss in output here and there, but the safety to life and property will be immeasurably enhanced.

In some States the practice of slowing down the fans while shot firing is going on, is claimed to be a great safeguard to those engaged in this dangerous work. This is true in Iowa, Kansas, Missouri, and is being agitated in many other States. There are good reasons that can be given for this; suffice it to say, that the States where this practice has been followed, have had no explosions in the time it has been in vogue, about four years.

On the subject of electricity in coal mines, our present mining law does not contain a word. Now this is a very important subject and the ever-increasing use of electric power for the mining and hauling of coal makes it imperative that some legislation be enacted for the safety of employes. There are four mines in the State that are wholly or in part operated by electricity and the number is likely

to increase rapidly. It is therefore necessary to amend the laws to meet this comparatively new and highly dangerous improvement in mine methods.

The question of mine maps does not go far enough under the present law; the law only requires that the coal companies must keep at their office at the mine, maps or tracings of their works for inspection by the inspector. They should be obliged to file copies of their maps at the office of the inspector; such maps or tracings of their mine workings might often enable the inspector to avoid much trouble and probable danger.

Every report for the last four years has asked for some change in that part of the law relating to the use of oil for illuminating purposes in mines. The present law requires a quality of oil costing too much, and yet little better for illuminating and sanitary purposes than the oil used in Ohio and many other States. I would recommend a section similar to the Ohio Mine Law, and that this be made a part of the Maryland Mining Law; then with reasonable standards set, I think that every interest would endeavor to put it into effect because many of our miners are now using a high grade of oil, and many others are using "sunshine." If everyone would co-operate to make this effective, and I think they would, it would reduce the poisonous smoke in the mines, and greatly benefit the health of the miners working therein.

There should be a provision made for the employment of and examination of fire bosses. We have a couple of mines in the State that are generating a very small amount of explosive gas or carburetted hydrogen, and to be ready for the time when we may have more of it than at present, we should copy the most comprehensive laws in practice in other States on this subject. It should also be a requirement for the office that an applicant for Mine Inspector should undergo an examination, because the duties are getting more and more exacting, and this is as it should be.

Mine foremen should also be required to have some qualification, more than is at present the case. Some system of State licensing, so they would be able to hold their jobs only because of fitness, is needed, and I believe it would improve the efficiency to both operator and miner, the one for whose life and well-being he is responsible and the other whose property he has in charge.

The law should require mine owners to fill out blanks provided by the Mine Inspector at the end of each year relating to statistics, acreage worked out, and unworked territory, tons produced, accidents, etc., and all other information not of a private nature. Nearly all the coal companies furnish me this information now, but they a e not obliged to under the law. I think only one company refused to furnish me the statistics asked for, but I got them just the same. It is of course, much better to have the Mining Law explicit on this very important matter.

There should also be a provision requiring mine owners to have a

properly kept place for miners to make a change of clothing at mines that are wet. In some instances workmen have long distances to go from their working places to their homes, and if they are wet from water dropping from the roof, or in the bottom of their working places, they should have a comfortable place in which to make a change of clothing. It could be left to the judgment of the mine inspector in what mines this would be necessary. To make it apply to all mines might result in its purpose being defeated.

In order that mine inspectors may hereafter be able to properly perform their duties, the law should be changed to say that their visits should be made not longer than every three months instead of every two months as at present. If this is not desirable, then an Assistant Mine Inspector will in all probability be needed. If the trips were reduced to four per year instead of six as at present, one man might be able to perform the duties for some years to come.

The providing of a fund for the expenses of the Mine Inspector's office is absolutely indispensable to the proper performance of his duties. The sum paid for protection to the mining industry in this State is miserably small in comparison to every other State in the country producing the same number of tons and some of them much less. It is bad enough to spend only about $1,800 to $2,000 per year, but when the inspector must wait until the legislature passes a special act to meet the expenses of the office incurred in the previous two years, it almost looks farcical. If the sum of $500 is appropriated each year, the inspector using only such part of that as may be necessary, or all of it if needed, this would be actually but very little increase over the present expense. For many years the inspectors have been procuring what supplies were needed—or rather what they thought might be paid for—and not being sure that they would be paid—the office is perhaps the poorest equipped in the country. A bill is now pending before the present session to pay the expenses of the past two years. This amendment would simply relieve the legislature of the recurrence of claims at every session to be paid by special bill, and not operate to increase the expense of government in any material way, while by making funds immediately available to pay for necessary expenses, the law would expedite the transaction of the State's business and greatly increase the value of the office of Mine Inspector to the people of the State.

It would have another good effect and that would be that mine inspectors would not be able to put forward the excuse that they were not going to spend their salaries in expenses when they did not know whether they would ever be reimbursed. None of these proposed alterations in the laws have any special bearing upon the convenience of the interests operating the mines, involving no particular expense nor imposing any hardships upon the employes of the mining corporations. In the interest of sanitary conditions, the provisions as to blasting and the provisions as to the quality of oil and all other recommendations are greatly needed, and will benefit operator and miner

alike. The matter of funds for the administration of the office of mine inspector is plain—too plain to need explanation. If it is of importance to the State to safeguard the persons and property of citizens by appointing an inspector, then it is important to provide that official with power to do his duty while in office.

I beg to express my appreciation of the many kindnesses shown me by miners and mine owners and the co-operation and help that I have generally received from the many engaged in mining in the State. For much of the information contained in this report, I want to thank the mine owners who kindly furnished the same.

Maryland's Mine Inspectors

Name	Tenure of Office
PETER CAIN	From 1st. Monday in May 1874, to 1st. Monday in May, 1876.
OWEN RIORDAN,	1st Monday in May, 1876, to 1st. Monday in May, 1878.
OWEN RIORDAN,	from 1st. Monday in May, 1878 to 1st Monday in May, 1880.
THOMAS BROWN,	1st. Monday in May, 1880, to 1st. Monday in May, 1882.
THOMAS BROWN,	1st. Monday in May, 1882, to 1st. Monday in May, 1884.
DENNIS SHERIDAN	1st. Monday in May, 1884, to 1st. Monday in May, 1886.
DENNIS SHERIDAN	1st. Monday in May, 1886, to 1st Monday in May, 1888. Mr. Sheridan died during the early part of his term.
CHAS H. HAMILL,	appointed September 9, 1886, began his duties Sept. 16, 1886, and served the rest of Mr. Sheridan's term to May, 1888.
R. T. BROWNING	1st. Monday in May, 1888 to 1st Monday in May, 1890.
R. T. BROWNING	1st. Monday in May, 1890, to 1st Monday in May, 1892.
F. J. McMAHON,	1st. Monday in May, 1892, to 1st. Monday in May, 1894.
F. J. McMAHON,	1st. Monday in May, 1894, to 1st Monday in May, 1896.
OTTO HOHING,	1st. Monday in May, 1896, to 1st. Monday in May, 1898.
ALEX. RANKIN,	1st. Monday in May, 1898, to 1st. Monday in May, 1900.
JAS. P. CARROLL,	1st Monday in May, 1900, to 1st. Monday in May, 1902.
JAS. P. CARROLL,	1st. Monday in May, 1902, to 1st. Monday in May, 1904.
THOS. MURPHY,	1st. Monday in May, 1904, to 1st Monday in May, 1906.
THOS. MURPHY,	1st. Monday in May, 1906, to 1st Monday in May, 1908.

Mr. R. T. Browning is the only Inspector that has been appointed from Garrett county, all the others being from Allegany county.

Statistics of the Production of Coal in Maryland in 1906

ALLEGANY COUNTY

Name of Company	Name of Mine	Employes at the Mines					Days Worked	Output in Tons			Vein of Coal Being Mined
		Miners	Drivers	Insd. Lb.	Outs. Lb.	Total		Pick Mined	Machine Mined	Total Output	
M'Mullen Bros. Coal Co.	Partridge Run	5	1	..	..	6	200	3,000	None ..	3,000	Brookville or Blubaugh
Cumberland Basin Coal Co.	No. 1 & 2	12	1	1	1	15	40	2,000	"	2,000	Brookville and Parker
New York Mining Co.	Union No. 2	300	28	22	65	455	257	397,136	"	397,136	Big Vein or Pittsburg
New York Mining Co.	Union No. 1	42	4	6	12	64	17	585	"	585	Big Vein or Pittsburg
Union Mining Co.	Union	102	6	6	12	126	293	136.196	"	136,196	Big Vein or Pittsburg
Midland Mining Co.	Trimble	10	1	1	2	14	190	4,818	"	4,818	Big Vein or Pittsburg
Midland Mining Co.	Enterprise	24	4	2	3	33	243	28,142	"	28,142	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 1	489	33	100	60	682	265	394,022	100,555	494,577	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 3	298	21	102	102	523	302	247,237	31,646	278,883	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 3½	113	11	41	13	178	202	109,867	None ..	109,867	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 7	814	55	139	117	1,125	275	843,883	232,234	1,076,117	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 8	62	5	5	7	79	284	100,305	None ..	100,305	Big Vein or Pittsburg
Consolidation Coal Co.	Tyson No. 2	8	1	..	1	10	69	3,139	"	3,139	Tyson or Sewickley
Consolidation Coal Co.	Tyson No. 7	5	1	..	1	7	285	8,039	"	8,039	Tyson or Sewickly
Consolidation Coal Co.	Tyson No. 8	23	3	2	3	31	287	15,357	"	15,357	Tyson or Sewickley
Consolidation Coal Co.	Tyson No. 9	44	5	9	8	66	305	31,435	"	31,435	Tyson or Sewickley
Consolidation Coal Co	Pumping Shaft figures	from	this	is in	in	Hoff.	Oc'n	No. 3	"		Tyson or Sewickley
H. and W. A. Hitchins Coal Co.	Borden	44	6	12	10	72	252	46,140	"	46,140	Big Vein or Pittsburg
Piedmont & Georges Creek Coal Co.	Washington No. 1	47	7	12	9	75	271	51,057	"	51,057	Big Vein or Pittsburg
Piedmont & Georges Creek Coal Co.	Washington No. 2	92	19	16	18	145	265	103,790	"	103,790	Tyson or Sewickley
Piedmont & Georges Creek Coal Co.	Washington No. 3	140	13	21	20	194	232	186,332	"	186,332	Davis six foot or Lower Kittanning
Piedmont & Georges Creek Coal Co.	Washington No. 4	47	8	8	9	72	31	4.331	"	4,331	Davis six foot or Lower Kittanning
	Pied. & Georges Cr C C	bo'ght	this	from	Pied	Cumb.	Coal	Co., Nov.	21, 1906		
Wachovia Coal Co.	Montell	14	3	3	7	27	248	3,047	12,749	15,796	Davis 6-foot or Lower Kittanning
Bowery Coal Co.	Bowery	34	5	..	3	42	275	19,125	None ..	19,125	Big Vein or Pittsburg
Barton & Georges Cr Valley Coal Co.	Carlos No. 2	30	1	2	25	33	248	217,324	"	217,324	Big Vein or Pittsburg
Barton & Georges Cr Valley Coal Co.	Carlos slope	140	12	12	.	189	..	.....	"		Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	Engineside, No. 1, 16, 17	140	8	6	13	167	275	160,565	"	160,565	Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	Pine Hill	60	2	1	3	66	275	40,413	"	40,413	Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	Columbia 9, 10, 12	80	4	3	6	93	275	62,336	"	62,336	Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	No. 13	25	1	1	3	30	.	665	"	665	Big Vein or Pittsburg
New Central Coal Co	Koontz No. 1	67	6	3	14	90	300	98 262	"	98,262	Big Vein or Pittsburg
New Central Coa Co	Tyson No. 1	15	2	4	1	22	300	12.000	"	12,000	Tyson or Sewickley
Coromandel Coal Co.	Big Vein	25	3	1	.	30	285	28,341	"	28,341	Big Vein or Pittsburg
Maryland Coal Co	Appleton; New Detmold	110	7	5	9	131	..	188,709	"	188,709	Big Vein or Pittsburg
American Coal Co	Nos. 5, 6, 17, Big Vein	33	2	2	8	45	294	108,418	"	108,418	Big Vein, Tyson and Waynesburg
American Coal Co	Nos. 1 & 2 Tyson	22	3	1	6	32	..	.....	"		Big Vein and Tyson
American Coal Co.	Nos. 1 & 2 Waynesburg	14	2	1	6	23	..	.....	"		Waynesburg
American Coal Co	Nos. 6, 7, 9, 10 & 13	38	4	1	16	59	206	82,272	"	82,272	Big Vein and Tyson
American Coal Co.	Nos. 2, 3 & 4 Tyson	35	4	1	..	40	...	.....	"		Tyson
Piedmont Mining Co	Pekin Mine	33	3	2	12	50	270	33,900	"	33,900	Big Vein or Pittsburg
Piedmont Mining Co	Moscow Mine	15	2	1	2	20	200	19,085	"	19,085	Big Vein or Pittsburg
Moscow-Georges Creek Coal Co	Moscow No. 2 and 3	16	2	2	4	24	208	10.487	"	10,487	Big Vein and Bakerstown, or Barton 4-ft.
Chapman Coal Mining Co.	Swanton	45	6	1	6	58	150	27,852	"	27.852	Tyson and Bakerstown, or Barton 4-foot
Potomac Coal Co.	Potomac	57	8	10	21	96	218	46,763	"	46,763	Bakerstown or Barton 4-foot
Frostburg Coal Co.	Ginseng	15	2	2	3	22	65	.....	4,650	4,650	Thomas, or Upper Freeport
Phoenix & Georges Cr Coal Mining Co.	Phoenix Mine	35	3	1	12	51	220	37,418	None	37,418	Big Vein or Pittsburg
Phoenix & Georges Cr Coal Mining Co.	Elkhart Mine	20	2	1	2	25	150	15 000	"	15,000	Bakerstown, or Barton 4-foot
Cumberland & Georges Creek Coal Co.	Penn Mine	25	2	3	3	33	200	9,503	"	9,503	Bakerstown or Barton 4-foot
Piedmont Cumberland Coal Co	Brown's Mine	40	5	1	6	52	160	31.137	"	31,137	Davis 6-foot or Lower Kittanning
	This Co. was dissolved	in the	fall	1906,	b'ing	abs'bd	by the	Pied. &	Georges	Creek	Coal Company
Davis Coal & Coke Co.	Buxton Mine	132	18	22	26	198	284	195,135	"	119,135	Davis 6 foot or Lower Kittanning
Frostburg Fuel Coal Co (local use) and	Tyson No. 2	4	1	..	1	6	..	1,950	"	1,950	Big Vein or Pittsburg
McCullough's Coal Co	Big Vein (local use)	4	1	..	1	6	..	3,091	"	3,091	Tyson or Sewickley
Westernport Coal Co (local use)		2	..	..	..	2	..	279	"	279	
		4,076	358	608	692	5,734		4,181,048	381,840	4,562,888	

GARRETT COUNTY

G. C. Pattison Coal Co.	Pattison's Mine	40	6	..	3	49	200	32.086	None ..	32,086	Davis six foot and Barton 4-foot
Munroe Coal Mining Co.	Elk Run No. 1	35	5	5	10	55	225	41,700	"	41,700	Davis six foot and Barton 4-foot
Monroe Coal Mining Co.	Elk Run No. 2	25	3	2	4	34	225	23,500	"	23,500	Davis six foot and Barton 4-foot
Three Forks Coal Mining Co.	Mine No. 1	Getting	ready	to	ship,	not	having	shipped	any	during	1906 Lower Kittanning, or Davis 6-foot
Potomac Valley Coal Co.	Darwin	20	3	1	4	28	259	20,403	"	20,403	Upper Freeport, or Thomas 3-foot
Blaine Mining Co.	Dill No 2	55	8	2	9	74	259	61,375	"	61,375	Lower Kittanning, or Davis 6-foot
Garrett Co. Coal & Mining Co	Dodson Nos. 1, 2	80	9	5	21	115	220	92,000	"	92,000	Lower and Upper Kittanning
Garrett Co. Coal & Mining Co.	Dodson No. 3	8	1	1	0	10	45	750	"	750	Lower Kittanning, or Davis 6-foot
Upper Potomac Mining Co.	Upper Potomac	45	4	2	9	60	287	33,790	"	33,790	Lower Kittanning
The Stoyer Run Coal Co.	Stoyer Run Nos. 1, 2, 3	20	3	2	6	31	285	10,344	"	10,344	Lower Kittanning and Upper Freeport
Beechwood Cumberland Coal Co.	Mine No. 1	8	1	0	2	11	46	1,782	"	1,782	Upper Freeport, or Thomas 3-foot
Nethkins Coal & Coke Co.	Bayard	..	..	0	0	..	..		"	56	Upper Freeport, or Thomas 3-foot
		336	43	20	68	467		317,732		317,732	
	Totals for entire State	4,412	401	628	760	6,201		4,498,780	381,840	4,880,620	

The output figures in this table are in long tons of 2240 pounds; the reports of other States usually express such statements in short tons of 2000 pounds. The total production of Maryland in tons of 2000 pounds during 1906 was 5,491,294.

Drainage of the Mines

In my last report there was a chapter devoted to the coal area of Maryland. This gave a very brief outline of the various coal seams in the State, those being worked extensively, and many that are practically untouched. This does not mean that they are all an uncertain quantity, or that the many coal seams here are not being worked, for they are. Every seam of commercial value is being operated at some point or other in the State. There is no question that has a more important bearing on the developing of the lower coal measures, than the question of drainage. This is particularly true of Allegany county. In Garrett county the most of the coal veins known can be mined above the water level, and if ordinary judgment is used in opening, the question of drainage will never be a serious one there. In Allegany county we have a basin known geologically as "The Georges Creek Basin." It is a broad, deep syncline containing all of the seams in the Maryland coal measures. It is generally accepted that Georges Creek is a drainage for all these coal seams; it is true it drains much of the Big Vein or Pittbsurg Seam, from a point below Midland all the way down the Creek until it empties into the Potomac. In the upper end of the basin the big vein is drained by Braddock's and Jenning's Runs. The Franklin or Little Clarksburg, the next workable seam below the Big Vein cannot get natural drainage much above Lonaconing, but from there to Piedmont it rises higher and higher above the Creek.

The Bakerstown or Barton four foot goes under Georges Creek at the lower end of Pekin and like the other seams, is well upon the hill tops at Piedmont. The Upper Freeport is below water level at Barton, gradually rising as it approaches the southern end of the basin, while but a small area of the six foot or Davis Seam can be worked above water level in the centre of the syncline. Much mining can be done on the out-croppings of the western slope of the syncline near Savage Mountain, because of the many branch streams that flow from there into Georges Creek. The same is true of the eastern slope of Dan's Mountain, and it is likely that very shortly there will be large developments up some of the streams on this side of the syncline. Some of these streams cut very deep, exposing all coals in the Conemaugh and Allegany formations, and for a limited area affording complete drainage. The bottom of the syncline or basin is very well located now at a point near Frostburg; from this saucer-like basin, the coal measures rise in every direction. As a general proposition the thickest coal seams will always be the first to be mined; this

being true, the next largest seam after the Big Vein is the Davis Six Foot or Lower Kittanning. This seam lies from 800 to 825 feet below the Big Vein or Pittsburg Seam. There is a large area of this coal in the Georges Creek Basin, running almost the entire length and width of the syncline, approximately 20 miles long by 5 miles wide. To drain this vast amount of coal is a problem that will confront the mining engineer of the future. All practical coal men today know the expense, inconvenience and annoyance of pumping. It is only when no other method presents itself that up-to-date mine men continue pumping their accumulations of water.

The Consolidation Coal Company have recently completed a drainage tunnel from Clarysville to the bottom of Hoffman's Slope, a little over two miles long, for the purpose of draining their property. Some such method of drainage had been suggested some thirty years ago for this same property, but at that time the need of it did not become so apparent until the company had some years' experience in pumping. How much better it would have been if the properties could have had the advantage of this method of drainage from their earlier development! What a saving in energy and waste of money, and how much safer than depending on the uncertainty of pumps!

A drainage tunnel could be driven from some point on Warrior Run near Cresaptown into the bottom of the Georges Creek Basin, that I believe would afford complete drainage for all the coal possessing any commercial value. It is doubtful if this tunnel would need to be more than three miles long, that is, the main drainage tunnel; of course it might require branch tunnels of short distances to reach some of the flat work in the bottom of the syncline. The plan that suggests itself to my mind in connection with this tunnel, would be that the State take it in hand. There is no better way that the State could spend about $1,000,000 than by paving the way for an easy development of the valuable coal seams in the western part of the State. Private corporations could not agree on doing a work like this that means so much economic value to the commonwealth. Some would be afraid that one company would derive more benefit from it than another, and this would no doubt be true. If the State would drive the tunnel it could be made a source of revenue for perhaps the next 500 years. Each operating company using it as an outlet for their water would be charged so much per ton, say one cent, assuming that a company would put water into the tunnel proportionately with the number of tons mined. The revenue thus derived from one seam of coal alone would more than double the cost of construction, and as a safety precaution, from accumulations of water and probable gas, it can hardly be estimated. The water itself could be utilized. It would be an ever-flowing and constant stream, and always increasing. Why not give it drop enough at the opening and wire the power thus furnished back to the mines or towns, and this would be the means of additional revenue to the State. Some may say that this is away in the future, but I do not agree to that. I think it is a live ques-

tion and if found practicable could be worked out in the next few years. I trust this matter will be taken up by some people in the State and given the consideration I think it merits.

Weights and Weighing

The matter of weights and weighing has been given my most careful attention during the fiscal year, from May 1906 to May 1907.

The increasing demand for testing of scales requires a great deal of the inspector's time, and while it is one of the most important branches of the coal mining industry, it is also one of the hardest of settlement.

The history of coal mining is so full of imposition on the part of mine owners in the past and some of those of the present that it is hard for miners to believe that any company will deal justly with them in the matter of weights.

I have watched this question of weights as carefully and closely as I am able, and at no time have I seen anything that would lead me to believe there was a deliberate attempt on the part of anybody operating in this State to deal unjustly with the men in the question of weights. I have appeared at the scales of the various mines at all times, and under all circumstances, without the knowledge of anyone, and if there was anything wrong all the time as alleged by some people, I would surely find it some place or other, and some time or other. One matter that may be worthy of mention is that the requests that I get to test scales come mostly from the mine owners or their representatives. I have not offered any recommendations or changes in the mining law on this question, because I believe that it is already amply provided for. I do not believe that any coal company could maintain antipathy or discriminate against men who would assert their right to place a man at the scales to look after their side of this question. The mining law already provides for that, and it only requires a majority of the men working in any mine to signify their willingness to have a checkweighman.

One of the most remarkable cases on this weight question happened at mine No. 14 of the Georges Creek Coal & Iron Co. Clerk Hamilton of the before mentioned coal company telephoned me one day that he believed the scales at No. 14 was not in good condition, as the difference at that mine between the mine weights and the railroad weights was so great that he thought their scales was badly out of shape. He asked me to test the scales with my test weights. The next morning after getting my weights together, I went to No. 14 and tested the scale on all four corners and in the center; found it cor-

rect; ran a loaded car on, balanced that, and put the weights on in addition to the loaded car. The scales showed the additional weight of the test at the heavy weight, and this proved to me that the scales was all right. I then began to look around for other causes, and found that the weighmaster, who was a new man, was weighing the coal at 2000 lbs. to the ton instead of 2240. I showed the young man the mistake he was making and explained to him that the law required the miner to give 2240 lbs. for a ton, and he must see that that was followed in the future. He seemed to fear the probable effects from the men because of this change, and asked me if I would mind his going in and bringing some of the miners out. I told him that I would not; and told him that I would stay there all day, or a week, if necessary, to settle a question as important to all concerned as that. He brought the men out or some of them, rather, and in the presence of these men, I then went over the test as I had on arriving at the scale. I explained to the miners that any point they did not clearly understand, they were to have no hesitation in questioning me on; that all of my work was of a public nature, and done in a public way. I then showed the miners what the weighmaster had been doing, and what he must do; and the men said what "was right was right, and that was all they wanted." This made some difference in the weight the men had been receiving at this mine, and it speaks well for their honesty and fair play that I have not had a word of complaint from those men since. This seems to prove in some degree, at least, that the question is one that has never been squarely met in this region. Wherever I have been able to get the men out, and to demonstrate in their presence as was done at this mine, I have very little trouble; but it is next to impossible for the inspector to get men to go near the scales with him. They say they are afraid of their jobs, and while this may be true, I doubt it very much. I have no doubt that a company would discharge a man who would deliberately charge them with stealing, as I have often heard them do; but if men would go honestly and above board and look for, and demand representation at the scales, I have no doubt they would get it.

The man that is always crying "robber and thief" is the one that needs to be very closely watched. I again suggest that every coal company would keep at their scales a couple of test weights with which to test scales, or that the State would buy enough to place a couple at every operation in the State. This would be a great saving in time and money to the people of the State, and would simplify the testing of scales greatly. If there were test weights at each mine, miners could, at any time test the scales, as it is their undoubted right to do.

Table of Accidents per Thousand Mine Employes in Several States

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906
Alabama	....	....	....	...	2.31	4.61	2.83	3.07	4.55	3.10	2.50	2.90	2.79	2.94	4.71	9.44	4.67
Colorado	2.27	4.40	4.49	6.31	3.06	3.05	0.07	4.99	3.23	5.60	3.99	6.88	8.11	4.27	10.96	5.35	7.74
Illinois	1.85	1.82	1.69	1.95	2.21	2.35	2.33	2.04	2.14	2.27	2.39	2.24	2.15	3.13	2.87	3.47	2.50
Indiana	76	72	2.50	2.96	....	2.92	3.94	2.00	2.63	2.07	1.82	1.98	1.83	3.64	1.91	1.86	....
Indian Territory	....	....	....	....	3.95	1.64	3.26	6.34	4.82	6.24	7.59	8.35	9.62	5.42	3.63	5.19	5.33
Iowa	.31	2.08	2.58	2.77	1.85	1.82	2.62	2.45	3.38	2.49	2.22	1.97	4.23	2.59	1.42	1.36	2.42
Kansas	1 77	2.08	....	1.52	2.58	1.11	1.36	0.71	1.95	1.57	2.06	2.28	2.70	3.61	3.00	2.97	3.04
Kentucky	.50	2.49	1.04	6.41	1.25	1.02	0.79	1.55	0.67	0.83	2.06	2.14	1.58	2.00	1.46	2.06	2.62
Maryland	1.08	1.54	1.52	1.23	1.69	2.30	1.58	1.17	0.89	1.08	1.33	2.23	1.98	2.29	1.67	2.09	1.13
Missouri	1.67	2.61	2.48	2.70	2.49	1.84	2.43	1.22	1.22	1.80	1.31	1.63	1.09	2.85	1.09	....	1.68
New Mexico	....	....	....	...	....	16.88	4.87	5.13	3.71	7.98	7.44	4.81	10.11	7.26	8.58	2.35	3.82
Ohio	1.89	3.18	1.56	1.11	1.43	1.79	1.44	1.39	1.77	2.08	2.14	2.15	2.16	2.75	2.57	3.03	2.80
Pennsylvania (Anthracite)	.. .	....	....	....	3.19	2.93	3.35	2.83	2.89	3.28	2.86	3.47	2.03	3.41	3.69	3.83	3.43
Pennsylvania (Bituminous)	2.18	3.21	1.69	1.60	1.44	1.83	3.14	1.72	2.27	2.82	2.43	2.56	3.37	2.65	3.44	3.33	3.14
Tennessee	....	4.32	2.84	2.21	2.53	7.81	3.37	1.58	2.43	2.60	1.15	6.10	25.80	2.69	2.81	2.38	2.88
Utah	....	....	....	....	....	1.49	4.05	4.17	4.38	....	38.96	5.81	3.24	3.21	4.06	5.14	4.45
Washington	....	....	....	....	14.79	2.38	2.98	2.48	2.70	3.60	7.79	5.59	7.83	5.13	6.69	2.73	4.86
West Virginia	....	3.16	2.76	4.20	2.98	3.97	2.68	2.89	3.86	3.55	5.03	4.02	3.78	4.03	8.33	4.24	5.65
British Columbia	....	....	....	....	1.37	3.42	3.27	4.47	2.34	2.91	4.22	5.67	34.65	9.85	8.31	2.72	....
Nova Scotia	....	....	....	....	2.41	1.55	1.33	1.35	1.56	3.39	3.17	1.83	2.36	2.79	2.23	1.86	....
Great Britain	1.89	1.50	1.49	1.55	1.60	1.49	1.48	1.34	1.28	1.26	1.30	1.36	1.24	1.27	1.24	1.35	1.29
France	....	....	....	....	....	....	1.62	1.34	1.26	1.62	1.62	1.40	1.27	1.19	1.24	1.16	....
Germany	2.07	2.32	1.95	2.18	1.86	2.12	2.18	2.06	2.54	....	....	1.44	1.41	1.06	1.16	1.29	....

Accidents in British and in American Coal Mines

There has been much written and said on the subject of the low death rate in coal mines in Great Britain as compared with the United States. Many theories have been advanced with more or less reason. There is no doubt that the slow and careful methods of the old world are more conducive to the preservation of life and limb than the pace that every one is going in this country. The accident death rate to all appearances is much higher in this country than in any of the coal mines of the old world; though, when the number of tons mined per fatal accidents is considered, the difference is not so great. This is a very important factor in arriving at any conclusion in relation to the death rate. The death-rate is usually based on two things: The number employed, and the number of tons produced. It is true if the death-rate be based on the number employed, the accident death-rate is much lower in the old world than here; but if based on number of tons produced, then with all factors considered, the difference is very little. Chief Inspector Harrison, of Ohio, in his report of 1906 quotes some very interesting statistics and comparisons between this country and Great Britian. He quotes Consul D. W. Williams in a published article in the Inland Operator. He says: "Mining as a British industry dates back over two thousand years; but in spite of all means known to the highest civilization in the way of legislation, inspection, mine discipline and invention death's daily toll of lives abates slowly. According to the complete statistics for 1905 just published the highest death-rate prevails in the Cardiff district which produces the smokeless coal. To mine the twenty-two million, eight hundred and fifteen thousand, one hundred and seven tons of coal, eighty-six thousand, eight hundred and eighty-one miners were employed, of whom two hundred and eighty-seven lost their lives, or an average of 3.30 out of each one thousand employed."

The death-rate for the entire kingdom was 1.35 per 1,000 employes. It is the general impression that the death-rate is lower in the British, than in the American mines. This is true if the rate be based on the number employed; but such a comparison is not quite fair, because it takes into account only one of the three elements in the problem.

The following comparison using the last complete statistics; those

of 1904 tends to show that the British death-rate is in fact higher than in America.

	America	United Kingdom
Tons of coal produced	352,310,427	232,428,272
Miners employed	594,768	833,629
No. of tons per miner	593	279
Average number of days	202	262
Average daily tonnage per miner	2.93	1.07
No. of miners killed	1,996	1,034
Death rate per 1,000 men	3.35	1.24
Death rate per 1,000,000 tons	5.66	4.44

If the comparison is stopped at this point one element remains unconsidered, for the American tonnage exceeded the British by almost 100,000,000 tons. To produce the American tonnage would require 1,262,761 British miners, while to produce it in 202 days would require 1,637,838 British miners. The employment of that number of British miners estimating at their own death-rate would cost about 2,035 lives, or at the rate of about 5.77 per 1,000,000 tons mined, which is higher than the American death-rate. Putting the matter in another form, the death-rate is reduced 1.33 per 1,000,000 tons by producing coal at a slower speed, and the American death-rate is increased by 1.22 per 1,000,000 tons by the higher intensity of production; but to balance this loss in part, the Americans have the use of 1,042,070 men for employment in other industries.

While the foregoing may be all true, figured out mathematically we still must admit that there is a great difference in the old world and here. Looking over the reports received from the home office in London, the following statistics relating to the enforcement of the laws against mine owners, agents, managers, and workmen is to my mind very significent. Prosecutions of owners, agents, and managers for offenses in 1902 were 73. Convictions were had in 52 of these cases—about 71 per cent. Prosecutions of workmen in the same year reached the number of 859. 829 of these were convicted—about 91 per cent. In 1903 there were 50 prosecutions of owners or their agents; 39 were convicted—about 78 per cent. In the same year there were 873 prosecutions of workmen, and of these 829 were conviction —about 90 per cent. In 1904 the number of owners or their agents prosecuted were 35; of this number 25 were convicted—about 71 per cent. In the same year 946 workmen were prosecuted, resulting in 918 convictions—about 91 per cent. In 1905 there were prosecuted 72 mine owners or their agents; of these 43 resulted in their convictions —about 60 per cent. In the same year there were procedings against

953 workmen; out of this number 917 were convicted—nearly 91 per cent. In 1906 there were prosecuted 30 owners or their agents; of these prosecutions 27 resulted in conviction—just 90 per cent. In the same year there were 824 prosecutions of workmen; 794 were convicted—nearly 91 per cent.

There were no jail sentences in the case of mine owners; but six in the case of miners in 1906. The amount of fines against owners or their agents was £125 19s. 6 d.

Of the jail sentences against workmen, there was none for a longer period than one month.

The fines against workmen aggregated £906 0s. 10d.

The average fine and cost was £1 2s. 10d.

There were in all six convictions for interfering with ventilation; 73 for violation of rules about safety lamps; 135 for violation of rules about matches and smoking; 51 for violations of rules about explosives; 107 for violation of rules about timbering. (As compared with 141 in 1905 a decrease of 34;) 198 for offenses in connection with haulage; 22 for disobeying orders; 25 for cruelty to animals; 15 for being about the mine in a state of intoxication; and 162 for miscellaneous offenses.

I quote these figures from the latest English reports at hand to show the army-like discipline they evidently maintain in and about their mines. As they say themselves there are still miners who willfully risk their own lives as well as the lives of their fellow workmen by disregarding the regulations designed to promote the safety of the mines.

While the owner or operator should be made to observe all the necessary precaution for the safety of employes, yet the long years of experience in the old world demonstrates the fact that as long as we have individual miners, danger from individual carelessness is as potent today as it ever was.

Fatal Accidents in Coal and Fire Clay

Date	Name	Occup't'n	Married or single	No. in F'mly.	Nativity	Residence
1906 Aug. 11	Owen Logsdon	Driver ..	Married.	...8..	American.	Eckhart....
1907 Feb. 19	Chas. H. Wolfe	Miner ..	Married.	..10..	American.	Luke .....
Mar. 4	Alex. Brown..	Foreman	Married.	...6..	Scotch....	Woodland ..
Apr. 1	John Lilie.....	Miner ..	Single...	.....	American.	Mt. Savage

FATAL ACCIDENT IN THE

1906 Aug. 6	Louis Martin..	Miner ..	Single...	.....	American.	Mt. Savage

This is a very remarkable showing as to fatal accidents in coal mining in Maryland. It is probably the lowest that has ever occurred, considering the number of men employed, and the amount of coal mined in the fiscal year. The total number of employees in the State engaged in coal mining is 6,201. Thus it will be seen that the death rate per 1'000 employees is very low, being but .64

There is nothing to equal this in the whole world, there being over 1,000,000 tons mined for each fatal accident.

This is for the fiscal year, from May, 1906, to May, 1907.

Mines in Maryland, May 1, 1906-7

Age	Cause of Accident	Mine	Name of Company	Extent of Injury
40	Caught between rib and car.....	Eckhart.	Consolidation Coal Co	Died in five days
46	Caught hy fall of draw slate.....	Buxton .	Davis Coal & Coke Co	Died in a few hours
46	Caught between trip and rib...	Ocean No. 7...	Consolidation Coal Co	Died in two days
30	Caught by fall of breast slate....	Union No. 2...	New York Mining Co	Killed outright
MARYLAND FIRE CLAY MINES				
25	Caught by delayed blast.	No. 6 ...	Union Mining Co....	Killed instantly

Fatal Accidents: Description

The total number of accidents during the fiscal year, from May 1, 1906 to May 1, 1907 was 61. Of this number, five were fatal, fifty-six non-fatal.

Between this and the last fiscal year is a decrease of eleven; a decrease of three in non-fatal accidents, and eight in fatal accidents. Four of the accidents were in coal mining, and one in fire clay mining. Of the non-fatal accidents, all occurred in coal mining. The number of fatal accidents is very low, probably the lowest in the history of the region.

The death rate is compiled from January to January of each year. All other statistics of tonnage etc. ends with the calendar year. This is the time when all statistics should begin and end, and thereby, much trouble, and probably inaccuracy, be averted. We take the year 1906 for instance. In the first four months of that year, there were six fatal accidents in coal mining, while in the last eight months, from May to January 1907, there was but one in coal mining, and one in fire clay mining; making a total of eight for the calendar year, while there were but five in the fiscal year, as stated above.

I have endeavored to get statistics of the accidents, showing the name, age, nationality, married or single, number of days lost, number in family, etc. None of these are idle questions, and should be answered by the foremen, to the best of their ability. There has been a system of reporting and compiling statistics in Maryland, started that if kept up will show in an intelligible manner, the causes and effects of accidents in the coal mines.

Of the fatal accidents in the fiscal year, from May 1906 to May 1907, one was being caught by a slope trip, and one was being caught by a close rib, one by a fall of draw-slate, and one by a fall of breast-slate. The fatal accident in fire clay mining was caused by a delayed blast. While these death are recorded as accidents, strictly speaking, none of them were such.

Owen Logsdon was caught by a rib that was unlawfully close.

Alexander Brown was on the slope when a trip jumped the track; a place where his duties did not require him.

Charles H. Wolfe, going up too soon after a blast to see how "she had done;" the draw-slate fell on him, killing him.

John Lilie went under breast-slate in Union No. 2, that he knew was bad, and according to his "butties," was told not to; but did so.

Louis Martin, killed in the fire clay mine, had done something

that fire clay miners never do; that is, going back to see what effect the blast had, that they are in the habit of putting in, the last thing they do before going home, and do not go near again until the next morning. Martin had five shots charged, and when they went off he thought they had all fired, and approached to see the effect, when one, that was hanging fire went off, striking him full in the face, killing him almost instantly.

It will thus be seen that if the proper precaution be taken by workingmen and companies, accidents would be reduced to a minimum. This year Ocean No. 7, of the Consolidation Coal Co., have fitted up a very comfortable ambulance for removing the dead and injured; and the same thing could be done at the other mines in the State, where they are sorely needed. It does not mean that they have not a conveyance at all the mines, but they are not as comfortable as they should be. Operstors should also be required by law to have a medicine case at each mine, fitted with all the necessary supplies for the relief of the injured.

THE COAL MINE ACCIDENTS

1—Aug. 11, 1906, Owen Logsdon, driver, employed in Eckhart of the Consolidation Coal Co., was caught between a car of his loaded trip and the rib, about 4:00 p. m., on Saturday evening, August 11, 1906, and died five days after, in a hospital at Cumberland. The accident occurred in a heading, known as the Short Heading. This heading is driven from the left side of Price's Heading. About 125 feet from this, while hurrying on what was said to have been his last trip, it is supposed that he forgot about the rib being too close, and was caught by the cars and so crushed that he died from the effects five days after. This accident could have been avoided, had the proper attention been given this rib by those in authority.

2—Feb. 19, 1907, Charles H. Wolfe was injured by a fall of draw-slate at the Buxton Mine, of the Davis Coal and Coke Co. This accident is like many others that I have seen in my term of inspector. Sometimes this draw slate falls at once, and other times hangs until pulled down; but this time it fell as Wolfe went up to see the result of a blast, with the effect above stated.

3—March 4, 1907, Alexander Brown, inside or second foreman, at Ocean No. 7, of the Consolidation Coal Co., was caught by a trip of empty cars on the old slope, and crushed so badly that he died in a few days. He was in the habit of traveling a great deal on the slopes. The trip jumped the track, and caught him as he was about at the man-hole. These man-holes are along the slope, at short distances apart. This was a very distressing accident, but it is another demonstration that there cannot be too much care exercised. Had he used the man-way, this accident would have been avoided. It seems that every one but the miners and drivers in this mine think they are privileged to ride and walk the slopes instead of the man-

ways; I warn them to keep off this, and other dangerous slopes.

4—April 1, 1907, John Lilie, miner, was killed instantly by a fall of breast-slate in Union Mine, No. 2, of the New York Mining Co. This accident was a very careless affair. His "butties" said that they warned him against going under the breast-slate, and told him to pull it down. This he did not do; hence the above result.

FATAL ACCIDENT IN FIRE CLAY MINE.

1—Aug. 6, 1907, Louis Martin was killed instantly by a delayed blast, in No. 6 mine of the Union Mining Co. This mine is one of a group of mines that supplies the Union Mining Company with clay. Martin and those working with him had prepared five charges of dynamite as is their custom, before going out. When they fire, they go straight home. On this occasion Martin went up the heading, to stop any one, who might be going out while the blasts were going off. He, it is supposed, thought that all five blasts had gone off; and in passing, he went to take a look, with the effect that one blast, delayed, went off, and hit him full in the face, killing him instantly.

Table of Fatal Accidents, Tonnage, etc.

COVERING A PERIOD OF SEVENTEEN YEARS

Date	Coal Mined (Short tons)	Fatalities	Death Rate per 1,000 em	Dependants	Tons per Fatal acc't
1890	3,357,812	.....	2 08	.....	.....
1891	3,820,239	.....	1.54	.....	.....
1892	3,149,962	.....	1.52	.....	.....
1893	3,716,041	.....	1.23	.....	.....
1894	3,501,488	.....	1.69	.....	.....
1895	3,915,585	.....	2.30	.....	.....
1896	4,143,936	.....	1.50	.....	.....
1897	4,442,128	.....	1.17	.....	.....
1898	4,674,884	.....	.89	.....	.....
1899	4,807,396	.....	1.08	.....	.....
1900	3,923,249	7	1.32	.....	560,474
1901	5,113,127	12	2.23	26	426,094
1902	5,271,609	11	1.98	47	479,237
1903	4,846,165	12	2.20	32	403,847
1904	4,790,459	10	1.67	18	479,046
1905	5,118,739	13	2.09	36	398,600
1906	5,491,294	7	1.13	34	784,471

Average number tons mined per fatal accident, 1900—1906, 504,538

Table of Non-Fatal Accidents

No.	Date	Name	Occupation	Age	Marr ed or Single	No. in Family	Nationality	Residence	Nature of Injury	Days Lost	Cause of Accident	Name of Mine	Name of Company
	1906												
1	May 8	John Welsh	Miner	25	Single	0	Irish	Lonaconing	Not serious	28	Car ran on his body	Tyson No. 16	Georges Creek Coal & Iron Co
2	8	Roy Mikesell	Coupler	17	Single	0		Frostburg	Two fingers cut off	..	Hand caught by haulage rope	Ocean No. 7	Consolidation Coal
3	June 1	Richard Williams	Miner	34	Married	0	Welsh	Midland	Back sprained	29	Fall of breast coal	Ocean No. 8	Consolidation Coal Co.
4	22	Henry McKinnon	Miner	30	Single	0	Scotch	Harpersville	Hurt about face	20	Blow-out shot	Tyson No. 16	Georges Creek Coal & Iron Co.
5	26	Charles Sigler	Miner	35	Married	0	German	Gilmore	Not serious	..	Pick stuck him in face	Ocean No. 7	Consolidation Coal Co
6	July 2	John Largent	Miner	45	Married	..		Lord	Knee cap and back injured	..	Fall of roof coal	Ocean No. 7	Consolidation Coal Co.
7	20	James McCabe, Sr.		65	Married	5	Irish	Midland	Leg broken, back badly inj'd	1 yr.	Fall of breast coal	Ocean No. 7	Consolidation Coal Co
8	23	John W. Lane	Miner	26	Married	..	American	Lonaconing	Badly bruised	..	Fall of breast coal	Pine Hill	Georges Creek Coal & Iron Co
9	26	Samuel Armour	Miner	34	Married	3	Scotch	Lonaconing	Face and head cut	..	Dynamite explosion	Tyson No. 16	Georges Creek Coal & Iron Co
10	26	Arch Johnson	Miner	25	Single	0	Scotch	Lonaconing	Face cut	..	Dynamite explosion	Tyson No. 16	Georges Creek Coal & Iron Co
11	Aug 14	John Penman	Miner	43	Married	4	American	Barton	Back badly injured; serious	..	Fall of roof coal	Phoenix Mine	Phoenix & Georges Creek C. M. C
12	..	Frank Schmidt	Miner	43	Married	9	German	Frostburg	No bones broken	30	Fall of breast coal	Ocean No. 3	Consolidation Coal
13	Sept 1	Frank Leake	Miner	26	Single	0	American	Vale Summit	Bruised all over	..	Hurt on slope	Ocean No. 1	Consolidation Coal Co
14	1	B. Kayinskyie	Miner	34	Married	4	Polander	Midland	Leg and back badly bruied	30	Hurt on slope	Ocean No. 1	Consolidation Coal
15	8	John Jenkins	Miner	50	Married	0	Welsh	Midland	Slight	7	Stuck pick in his leg	Ocean No. 1	Consolidation Coal Co
16	13	John McGowan	Miner	28	Single	0	American	Midland	Back and breast hurt	..	Fall of roof coal	Ocean No. 1	Consolidation Coal
17	15	Stanley Glowatski	Miner	28	Single	0	Polander	Midland	Head cut	..	Fall of breast coal	Ocean No. 1	Consolidation Coal Co
18	17	Ralph E. Strouse	Miner	26	Married	3	American	Frostburg	Head and face cut	..	Fall of roof slate	Ocean No. 6	Consolidation Coal
19	21	Joseph Neider	Driver	35	Married	3	German	Lord	Foot amputated, Oct. 5, 1906	..	Fall of roof coal	Ocean No. 7	Consolidation Coal Co
20	25	Miles D. Byrne	Outside lab	35	Married	..	Irish	Midland	Leg broken	..	Fell off road car	Ocean No. 1	Consolidation Coal Co
21	27	James Dorsey	Miner	28	Single	0	Irish	Midland	Cut in head	..	Fall of breast coal	Ocean No. 1	Consolidation Coal Co
22	28	Robert Cosgrove	Laborer	21	Single	0	Irish	Frostburg	Both legs bruised	..	Caugh on dump by car	Ocean No. 3	Consolidation Coal Co
23	29	Harry Taylor	Driver	25	Single	0	American	Frostburg	Arm and wrist broken	..	Caught between rib and cars	Ocean No. 7	Consolidation Coal
24	Oct. 10	Humphry Kellar	Driver	18	Single	0	German	Borden Mine	Ankle squeezed between car	..	Cars got off track	Union No. 2	New York Mining
25	15	Edward Kight	Driver	35	Married	5	American	Frostburg	Leg hurt	13	Caught by cars	Union Mine	Union Mining Co
26	Nov. 3	Thos. Carny	Miner	35	Single	0	Irish	Frostburg	Head cut	14	Fall of roof coal	Union Mine	Union Mining Co.
27	19	Thos. Baker	Laborer	40	Married	1	American	Midland	Arm hurt	..	Kicked by mule	Ocean No. 1	Consolidation Coal
28	26	Joseph Wyland	Driver	20	Single	0	American	Lonaconing	Hips and stomach hurt	..	Fell off trip	Ocean No. 1	Consolidation Coal
29	29	George Rogers	Miner	22	Single	0	Scotch	Lonaconing	Arm hurt	..	Fall of rock	Tyson No. 16	Georges Creek Coal & Iron Co.
30	29	William Beeman	Miner	19	Single	0	American	Pekin	Not serious	20	Stuck pick in himself	Pekin	Piedmont Mining Co
31	Dec. 2	John Porter	Miner	40	Married	4	American	Barton	Not serious	14	Caught between car and prop	Moscow	Piedmont Mining Co
32	7	William Skidmore	Miner	55	Married	7	American	Borden Mine	Foot hurt	..	Fall of breast coal	Union Mine	Union Mining Co.
33	18	William Lee	Miner	45	Married	8	American	Moscow Mills	Not serious	7	Hurt by prop falling on leg	Moscow Mine	Piedmont Mining Co
	1907												
34	Jan. 15	Mike Tacelone	Miner	34	Single	0	Italian	Morantown	Badly hurt	..	Fall of breast slate	Union No. 2	New York Mining Co
35	15	Peter Fair	Miner	26	Single	0	American	Allegany	Right side broken	..	Fall roof coal	Union No. 2	New York Mining
36	15	Patrick Boyle	Miner	22		0	Irish	Lonaconing	Arm broken	..	Fall of rock	Tyson No. 16	Georges Creek Coal & Iron Co.
37	15	Charles Moorehead	Miner	28	Married	4	American	Bloomington	Leg broken	6 mos.	Fall of draw slate	Buxton	Davis Coal & Coke
38	15	Samuel Beeman	Driver	17	Single	0	American	Gilmore	Leg broken	..	Car knocked prop out	Ocean No. 1	Consolidation Coal
39	18	Carman Ross	Miner	50	Single	0		Morantown	Foot run over	..	Fall of breast slate	Union No. 2	New York Mining
40	21	John N. Kelly	Driver	21	Single	0	Irish	Westernport	Head ane side injured	30	Caught by loaded car	Buxton	Davis Coal & Coke
41	22	Jerry Falma	Loader	24	Single	0	Italian	Montell	Arm broken	..	Fall of roof slat	Montell Mine	Wachovia Coal Co
42	29	Robert McMurdo	Miner	27	Married	4	Scotch	Midland	Foot run over	..	Fall of breast coal	Ocean No. 1	Consolidation
43	30	Andrew Daledovich	Miner	45	Married	6	Polander	Midland	Ankle hurt	..	Fall of roof coal	Ocean No. 1	Consolidation Coal Co.
44	Feb. 1	Patrick Cosgrove	Miner	52	Married	2	Irish	Lonaconing	Bruised all over	18	Fall of draw-slate	Tyson No. 8	Consolidation Co
45	6	George Barnard	Miner	19	Single	0	American	Borden	Arm hurt	..	Fall of rock	Ocean No. 9	Consolidation
46	8	Wm. Strickler, Jr.	Miner	54	Married	9	American	Westernport	Back hurt	90	Fall of breast coal	Buxton	Davis Coal & Coke
47	12	George Edwards	Miner	22	Single	0	American	Gilmore	Both legs hurt	21	Cut foot with ax	Ocean No. 1	Consolidation Co
48	15	George Kear	Miner	54	Married	5	Scotch	Frostburg	Not serious	..	Fall of roof coal	Ocean No. 1	Consolidation Co
49	16	John W. Wolfe	Miner	50	Married	10	American	Bloomington	Leg broken	72	Fall of draw slate	Buxton	Davis Coal & Coke
50	23	John W. Lane	Miner	27	Married	2	American	Lonaconing	Foot hurt	..	Fall of breast coal	No. 12	Georges Creek Coal & Iron Co
51	23	William Kight	Miner	26	Married	..	American	Frostburg	Body and legs hurt	..	Caught between loaded cars	Ocean No. 7	Consolidation
52	26	Thos. Crechton	Miner	22	Single	0	Scotch	Lonaconing	Hurt about breast and hips	..	Fall of breast coal	Ocean No. 7	Consolidation Co
53	Mar. 13	Geo. Youngerman	Miner	20	Single	0	German	Frostburg	Back hurt	..	Fall of top coal	Ocean No. 7	Consolidation Co
54	25	Charles Shearer	Driver	20	Single	0	American	Midland	Leg bruised	..	Kicked by mule	Ocean No. 7	Consolidation Co
55	Apr. 3	H. J. Miller	Dumpman	52	Married	3	American	Piedmont, W. Va.	Leg broken	..	Caught by bull wheel	Buxton	Davis Coal &
56	24	Harry Yost	Driver	21	Single	0	American	Westernport	Arm broken	..	Caught between loaded cars	Buxton	Davis Coal &

Table of Inspections

McMullen Bros	Barrelsville No. 1	4
Cumberland Basin Coal Co	Nos. 1 and 2	3
Georges Creek Bald Knob Coal Co	Nos. 1 and 2	0
Midland Mining Co	Trimble Mine	3
Midland Mining Co	Enterprise Mine	6
New York Mining Co	Union No. 2	6
Union Mining Co	Union No. 1	4
Consolidation Coal Co	Ocean No. 1	25
Consolidation Coal Co	Ocean No. 2, Tyson	3
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Consolidation Coal Co	Ocean No. 3½, Eckhart	6
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Consolidation Coal Co	Ocean No. 7, Klondyke	19
Consolidation Coal Co	Ocean No. 8, Big Vein, Tyson	10
Consolidation Coal Co	Ocean No. 9, Tyson	5
H. & W. A. Hutchins Coal Co	Borden Mine	7
Piedmont & Georges Creek Coal Co	Washington No. 1	6
Piedmont & Georges Creek Coal Co	Washington No. 2	8
Piedmont & Georges Creek Coal Co	Washington No. 3	6
Piedmont & Georges Creek Coal Co	Wash. No. 3, Brown's Mine	6
Georges Creek Coal & Iron Co	Mine No. 9	6
Georges Creek Coal & Iron Co	Mine No. 10	5
Georges Creek Coal & Iron Co	Mine No. 12	6
Georges Creek Coal & Iron Co	Mine No. 13	3
Georges Creek Coal & Iron Co	Pine Hill	5
Georges Creek Coal & Iron Co	Engineside	6
Georges Creek Coal & Iron Co	Tyson No. 16	5
Wachovia Coal Co	Montell Mine	7
Barton & G. C. Valley Coal Co	Carlos Mine	6
Bowery Coal Co	Bowery Mine	6
Braddock Coal Co	Pine City Mine	0
New Central Coal Co	Koontz Mine	6
New Central Coal Co	Tyson	5
Coromandel Coal Co	Big Vein Mine	5
Maryland Coal Co	Appleton Mine	6
Maryland Coal Co	New Detmold	5
Maryland Coal Co	Tyson No. 1	3
American Coal Co	Jackson Mine, Tyson, Big Vein and Waynesburg	6
Piedmont Mining Co	Moscow No. 1	5
Moscow & Georges Creek Mining Co	Moscow Nos. 1 and 2	5
Chapman Coal Mining Co	Nos. 1 and 2	7
American Coal Co	Caledonia	6
Potomac Mining Co	Potomac Mine	6
Frostburg Coal Co	Ginseng	2
Phoenix & Georges Creek Coal Co	Eckhart & Phoenix	6
Cumberland & GeorgesCreek Coal Co	Penn Colliery	5

Table of Inspectinos [Continued]

Piedmont Cumberland Coal Co.	Brown's (This mine was absorbed by the Piedmont & Georges Creek Coal Co., Oct. 1906.	2
Davis Coal & Coke Co.	Buxton Mine.	6
McCullough's	Fuel Coal Mine.	2
Hansell's	Coal and Fuel Mine.	2
Morrison's Land Co.	Morrison Mine.	5
Total inspections for Allegany county.		294

INSPECTIONS IN GARRETT COUNYT.

G. C. Pattison Coal Co	Bloomington Mine.	4
Three Forks Coal Co.	Three Forks No.1	2
Monroe Coal Mining Co.	Elk Run Nos. 1 and 2.	5
Potomac Valley Coal Co.	Darwin Mine.	5
Blaine Mining Co.	Dill No. 2.	5
Garrett Co. Coal & Mining Co.	Dodson No. 1.	5
Upper Potomac Mining Co.	Big Seven	5
Stoyer Run Coal Co.	Stoyer Run Nos. 1 and 2.	5
Beechwood Cumberland Coal Co.	Mine No. 1.	3
Nethkin's.	Bayard Mine	1
Garrett Coal Co.	Kendall Mine.	2
Total inspections for Garrett county.		42

INSPECTIONS IN THE FIRE CLAY MINES.

Union Mining Co.	Fire Clay Mines.	4
Big Savage Fire Clay Co.	Mine.	3
Savage Mt. Fire Brick Co.	Fire Clay Mine.	3
Total visits to fire clay mines.		10
Ten days spent waiting on Grand Jury		
Miscellaneous visits.		7
Total visits of inspection during the year.		353

In the matter of inspections made during the year, I want to say: that with the increasing developments in both Allegany and Garrett counties, it is almost impossible to keep within the provisions of the mining law relating to inspections. The law requires that the inspector visit each mine at least once every two months, that is, six visits per year. This he cannot do with any justice to himself; and attend to his office work. There are about 50 coal mines in Allegany county, about 15 in Garrett, and 3 fire clay mines. It will thus be seen that there is more than one for each day. In one case it requires three days to make a visit to a small mine employing about ten to fifteen workmen. The law should be changed to make it every three months; or there should be an assistant inspector appointed. I believe that four trips per year would produce as good results as six; and would lessen the burden greatly for the inspector.

List of Officials of Coal and Clay Mining Corporations in Maryland

ALLEGANY COUNTY COAL MINES

Name of Company	Principal Office	President's Name and Address	Secretary's Name and Address
M'Mullen Bros. Coal Company	Cumberland, Md.	H. A. McMullen, Cumberland, Md.	D. F. McMullen, Cumberland, Md.
Cumberland Basin Coal Co.....	Baltimore, Md.	Frank S. Hambleton, Baltimore, Md.	
Georges Creek Bald Knob Coal Co.	Baltimore, Md.	Chas. Mackall, Baltimore, Md.....	
Midland Mining Co.	Cumberland, Md.	W. A. Somerville. Cumberland, Md.	Daniel Askey, Cumberland, Md.
New York Mining Co.	Baltimore, Md.....	H. Crawford Black, Baltimore, Md.	Van Lear Black, Baltimore, Md.
Union Mining Co.	Baltimore, Md.....	H. Crawford Black, Baltimore, Md..	A. T. Burr, New York City
H. & W. A. Hitchins Coal Co	Frostburg, Md	Howard Hitchins, Frostburg, Md....	Emory G. Hitchins, Frostburg, Md.
Consolidation Coal Co	Baltimore, Md...	C. W. Watson, Baltimore, Md.....	T. K. Stuart, Baltimore, Md.
Piedmont & Georges Creek Coal Co.	Frostburg, Md	M. P. Fahey, Westernport, Md.....	Philip Brown, Frostburg, Md.
Barton & Geo' Creek Valley Coal Co.	Baltimore, Md.....	H. Crawford Black, Baltimore, Md..	Van Lear Black, Baltimore Md.
Bowery Coal Co.	Frostburg, Md.....	J. B. Williams, Frostburg, Md.....	T. J. Price, Frostburg, Md.
Wachovia Coal Co	Cumberland, Md	John H. Mertens, Cumberland, Md..	
Georges Creek Coal & Iron Co.....	Baltimore, Md.....	J. J. Alexander, Baltimore Md.....	Wm. H. Cooper, Baltimore, Md.
New Central Coal Co	New York	Malcolm Baxter, New York City	Duncan Sinclair, Fairmont, W. Va.
Coromandel Coal Co.	New York	Malcolm Baxter, New York City	
Maryland Coal Co.....	New York	T. E. Knapp, New York, N. Y.	
American Coal Co.	New York	W. De L. Walbridge, New York....	George M. Bowlby, New York, N. Y.
Piedmont Mining Co.	Baltimore, Md.....	Wm. H. Gorman, Baltimore, Md....	J. J. Dobbie, Lonaconing, Md.
Moscow-Georges Creek Mining Co.	Cumberland, Md.....	W. A. Somerville, Cumberland, Md.	Daniel Askey, Cumberland, Md.
Chapman Coal Mining Co.....	Baltimore, Md.....	W. J. Chapman, Baltimore, Md.	
Potomac Coal Co.....	Baltimore, Md.....	H. Crawford Black, Baltimore, Md.	Van Lear Black, Baltimore, Md.
Frostburg Coal Co.....	Baltimore, Md.....	.....	W. A Atkins, Baltimore, Md.
Phoenix & Geo. C'k Coal Mining Co.	Philadelphia, Pa.....	W. D. Althouse, Philadelphia, Pa...	A. A. Young, Cumberland, Md
Cumberland-Georges Creek Coal Co.	Philadelphia, Pa.	F. A. von Boyneburgh, Avalon, N. J.	A. Rensuf, Philadelphia, Pa.
Piedmont-Cumberland Coal Co.....	Philadelphia, Pa	Chas. R. Scull, Philadelphia, Pa....	
Davis Coal & Coke Co.....	New York	B. F. Bnsh, Baltimore, Md.....	L. F. Timmerman, New York City

GARRETT COUNTY COAL MINES

G. C. Pattison Coal Co.....	Bloomington, Md.....	G. C. Pattison, Bloomington, Md....	Carroll Pattison, Bloomington, Md
Munroe Coal Mining Co.....	Bethlehem, Pa.....	Chas M. Dodson, Bethlehem, Pa.....	Joyce Bachman, Bethlehem, Pa.
Three Forks Coal Mining Co	Philadelphia, Pa.....	A. J. Speese, Philadelphia, Pa.....	Eugene Crew, Philadelphia, Pa.
Potomac Valley Coal Co.....	Blaine, Md.....	John Y. Hite, Fairmont, W. Va. ...	L. B. Brydon, Grafton, W. Va.
Blaine Mining Co.....	Davis, W Va.	T. B. Davis, Jr., New York	W. P. Young, Meyersdale, Pa
Garrett County Coal & Mining Co..	Bethlehem, Pa.....	E. E. Bullock, Audenried, Pa	C. C. Bye, Wilmington, Del.
Upper Potomac Mining Co.....	Philadelphia, Pa.....	Russell S. Hubbard, Philadelphia, Pa.	E. H. Johnson, Philadelphia, Pa
Stoyer Run Coal Co.....	Philadelphia, Pa.....	W. S. Thomas, Harrisburg, Pa.....	W. R. Tyler, Philadelphia, Pa
Beechwood-Cumberland Coal Co. ..	Philadelphia, Pa.	W. Moore Wharton, Philadelphia, Pa	Joseph M. Price, Philadelphia, Pa.
Nethkins Coal & Coke Co.....	Bayard, W. Va.....	C. E. Nethkins, Keyser, W. Va.....	P. A. Dixon, Bayard, W. Va

CORPORATIONS MINING FIRE CLAY IN MARYLAND

Union Mining Co.	Baltimore, Md.....	H. Crawford Black, Baltimore, Md.	A. T. Burr, New York City
Savage Mountain Fire Brick Co....	Frostburg, Md	Chas. E. Gorsuch, Westminister, Md.	J. A. Caldwell, Frostburg, Md
Big Savage Fire Brick Co.....	Frostburg Md, ...	Davisson Armstrong, Frostburg, Md.	D. A. Benson, Frostburg, Md

Descriptions of the Mines

M'MULLEN BROS.

PARTRIDGE RUN MINE

D. F. McMullen, General Manager. James Barrett, Foreman.

The Partridge Mine of the McMullen Brothers Coal Co., has not done as much work from May 1906 to May 1907 as usual. The entire mine has been in better shape than at any time before, but they have encountered a fault that has given them more or less trouble.

The seam worked here is the Brookville, and is a coal of very high quality, when free of trouble. Located at Barrellsville on the main line of the Cumberland and Pennsylvania Railroad, about seven miles from Cumberland; it is about the closest operation to the eastern market in the country. The mine is a drift with a long tramroad and gravity plane to transport the coal to the railroad.

This company contemplates the opening of the Clarion or Parker seam, and the Lower Kittanning or Davis six foot, in the near future. Their property contains a large area of these two very valuable coals.

CUMBERLAND BASIN COAL CO.

David Williamson, General Manager. Robert Blyth, Foreman.

The Cumberland Basin Coal Co., has changed hands and the corporation now owning it, though operating under the same name, is sure to make it in time one of the large producing companies in Western Maryland. They have already gone to work and generally renovated the place; painted the buildings that were up, building new ones, and improving the property both inside and outside the mines. The mines here have been greatly improved since these people have taken charge. A new air shaft and furnace have been built, haulage roads have been made higher with more room made on the sides, and roads and drainage greatly improved. The company owns the branch road leading to the mines from the Cumberland and Pennsylvania Railroad, and operates a good sized locomotive for the purpose of hauling the

coal from these and their Wellersburg mines. It is a standard guage road.

The seams worked here are the Brookville and Clarion, the latter being probably the best coal for smithing purposes in the region at this place.

GEORGES CREEK BALD KNOB COAL CO.

This company has been idle all of the year and part of the previous year. The enormous outlay of money and seeming disregard of expense has placed this company in the hands of receivers, and what might have been a profitable operation has turned out to be a considerable waste of money. It is to be hoped that some one will work this property, as it can be made with a proper management a source of profit to the owners, and the locality in which it is located.

This operation is located near Mt. Savage, and ships on a branch road of the Wellersburg branch. The means of conveyance to the railroad is by a long incline plane and a long tramroad over which a locomotive hauls the coal.

MIDLAND MINING COMPANY.

TRIMBLE MINE

W. A. Somerville, General Superintendent. Frank Stohl, Foreman.

The Trimble mine of the Midland Mining Co. is located near Morantown, and ships over the Cumberland and Pennsylvania Railroad. It is in the Big Vein, or Pittsburg seam, but on the extreme eastern outcrop, and as a consequence is in a more or less troubled state. The last opening made at this operation shows up much better than any of the previous openings, the coal being higher and of better quality. The general condition is much better than in previous years. This is about the average condition during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth.....	5,240	10	524
Outlet at old opening.....	5,730		

ENTERPRISE MINE

W. A. Somerville, General Superintendent.
John S. Askey, Superintendent and Foreman.

On the old Miller branch of the Cumberland and Pennsylvania Railroad the Enterprise mine of the Midland Mining Co. is located. This

operation is in the Pittsburg seam or Big Vein, and is on the East side of what was once Ocean No. 1.

Much of this coal lies to the dip and with water, and during certain times in the year some "black damp" or "carbonic acid gas" makes it rather difficult mining. The company is at present mining mostly their own coal which was previously owned by the McCullough heirs of Frostburg. They are recovering much more coal here than any one believed possible, and will work for many years to come.

The ventilation is generally good in the upper or Sharp heading, this heading being connected with the old Tom Brown shaft on the Consolidation Coal Company's property. In the summer time they are usually unable to work the lower or dip workings, because of the "black damp" pushed from the old work of Ocean No. 1 by the fan at that place. Because of the cut-up character and the many air holes about this operation it is impracticable to get the necessary air readings. The roads and drainage at this mine are only fair.

NEW YORK MINING COMPANY.

UNION NO. 2

Henry Shriver, Superintendent. William Hamilton, As'st. Supt.
John Sullivan, Foreman. John Hannon, Sub-Foreman.

Union No. 2 of the New York Mining Company is the third largest operation in the State, in point of output and number of men employed.

The mine is located near the eastern outcrop of the Pittsburg seam or Big Vein, and is a part of that valuable coal seam. The outcroppings of this mine are the last seen of the Pittsburg seam in the North Eastern range of the Appalachian Mountains. The coal as a consequence is in a highly disturbed condition, often splitting into two seams as it nears the outcrop. Throughout most of the mine, there is a heavy shale parting that makes mining here for both men and company rather difficult. The miners have much dead work to do in handling this shale, for they are only paid something when it is extraordinary thick, and the company in order to keep the product marketable have a large force of men on the tipples to keep the coal clean; this they must do or they would be unable to sell the coal, though it is about as good as the best in the region when placed on the railroad cars for shipment.

It is surely true that the coal at this operation cannot be as cheaply mined as at most of the mines working the Pittsburg seam or Big Vein. The advance work is drawing to a close in this mine, but it will take much longer to retreat than it did to advance. There is at this writing upwards of two million tons to be mined, and if carefully gone after much more may be gotten.

The haulage system here continues to give satisfaction, and all things considered I think it the safest and best haulage in the region. It is an electric third rail haulage that has been described at length in my previous report, and for this mine it is ideal. I have spoken in previous years about the blasting of coal out of the solid in this mine. I can only reiterate what I have previously said, and that is that solid shooting should not be done by miners here or elsewhere. It is true that not all miners, even here, blast out of the solid; but some of them do; I believe there is much improvement along this line at this operation recently.

The roads and drainage have always been a source of commendation at this mine, particularly when the difficulties to be overcome are considered.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan rightside	15,675	86	182
Outlet at 2nd and 3rd rights	6,750	38	178
Intake to 4th right	6,240	15	416
Outlet of 7th right	7,200	13	554
Outlet of 9th right, slant	9,100	62	147
Outlet of 10th right	3,600	10	360
Outlet of 4th and 9th lefts, leftside	2,680	25	107
Outlet of 7th left side	5,130	10	513
Outlet of 6th left side	8,640	6	1,440
Intake to 5th left	3,320	40	83
Outlet of 4th left	7,140	14	510
Outlet of 3rd left	8,620	19	454
Outlet of 2nd left	8,400	40	210
Outlet of 1st left	12,180	22	508
Intake to short headina	7,200	19	359
Return to fan left side	48,480	264	184

This inspection is about an average one, and shows that the mine is very well ventilated, with the exception of the fifth left. I sometimes find this heading up to and beyond the requirements of the mining law; but as I have said before it extends away in a spur by itself, and is correspondingly hard to ventilate.

UNION NO. 1

Henry Shriver, Superintendent — John Sullivan, Foreman

Union No. 1 of the New York Mining Company is the mine located on the Withers property that was being made ready for shipping coal

as stated in my last report. This mine is in the famous George's Creek Big Vein or Pittsburg seam, and promises to be one of the coal producing mines in the near future. It is situated on the west bank of Jenning's Run, and just above the town of Allegany. The coal is shipped over a branch road to the Cumberland & Pennsylvania railroad. The company could have reached the main line of the Cumberland & Pennsylvania railroad by incline plane, but in order to prepare for the large output that will eventually come from this mine, they brought the side track up to the mine leaving room for good dump height. It is said there is about seven hundred acres of Big Vein on this property, about four hundred of Tyson, and about two hundred and fifty acres of the Waynesburg or Koontz seam. This means a large increase in this company's shipments in the future. I saw four openings made in the Waynesburg and they all faced up over four feet of clean coal on the outcrop. This looks very encouraging for this section of the region, and it is to be hoped that the strong corporation operating here will develop these valuable coals in the up-to-date manner so necessary to economic mining.

It is intended to install the same kind of electric haulage here that is at Union No. 2. There has been a large fan of the Crawford McCrimmon make, placed here to ventilate this mine, and if the proper attention is given to cut-throughs and bratticing, there will never be any trouble about the ventilation.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	29,570	40	739
Outlet at the two openings	31,640		

TYSON NO. 1

Henry Shriver, Superintendent. John Sullivan, Foreman.

The Tyson or Sewickley seam, is again being pushed at the opening just above Union No. 2 of the New York Mining Co. This coal, while not quite so high as some other points in the region, is very free of faults and very uniform in height. This can be made one of the most profitable operations in the State, if it is properly developed and equipped.

In some instances there may be more or less risk in going to great expense to make modern plants for our Tyson seam, because of the small local faults encountered here and there; but, in most cases these faults can be overcome by the proper grit and push that is such a necessary asset in coal mining today. The first equipment necessary at this mine is a good ventilating fan.

UNION MINING COMPANY.

UNION MINE

Henry Shriver, Superintendent. James Aldon, Foreman.

This mine is in about the same shape as reported last year, the only difference being that it is a little more contracted. It is still conceded to be one of the most desirable places in which to work. The relations existing, generally between the company, the management, and the workmen being good. This company have recently acquired a large tract of the Consolidation Coal Co.'s property adjoining this mine, and it is intended to develope it from the old New Hope slope. This will make Union Mine one of the last to be exhausted in the Big Vein, in this region. They are located at Borden, and ship over the Cumberland & Pennsylvania Railroad. This inspection shows the average condition of the ventilation during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	25,650	115	223
Intake to first right	4,300	41	105
Intake to all work on plane	5,040	24	210
Intake to straight heading	5,670	16	354
Intake to No. 1 slant	11,300	14	807
Outlet at various points in the mine.			

H. & W. A. HITCHINS COAL CO.

BORDEN MINE

J. S. Brophy, Superintendent. John Malloy, Foreman.

It is gratifying to note that this company almost doubled their shipments of the preceding year. The Borden Mine is one of the many that is operating in coal that was thought to be worked out, and the money spent in recovering this coal is a great benefit to the communities in which it is done.

The heading I spoke of in my last report has been completed, and is a very decided improvement on the outside tramroad over which the coal was formerly hauled. The cost of this and other work of this character has made it a slow process in getting returns for the money spent. It is true no company or combination of men will invest their money here or elsewhere without expecting to get a fair return for

their investment; but it shows commendable grit and enterprise to undertake a proposition that the general opinion believed to be unprofitable. It is to be hoped those aiding the community by creating labor, where it was believed impossible, will lose nothing by the process.

The ventilation here has been better than in any of the previous years of this mine's existence, the company doing everything in their power to aid the only means practicable at this operation, natural ventilation.

The Borden Mine is located at Borden and ships over the Cumberland and Pennsylvania railroad.

CONSOLIDATION COAL COMPANY

OCEAN NO. 1

H. V. Hesse, General Superintendent.

A. E. Reppert, Ass't. Superintendent. W. H. R. Thomas, Foreman.

The mines of the Consolidation Coal Company in the Pittsburg seam or Big Vein all begin as Ocean, and are numbered from 1 up to the highest operated. I do not known how this custom was established, except that the name Ocean, which is of Welsh extraction, seems to have for its origin, greatness or extent, as some of the first settlers here were Welsh it is probable it was from them the name originated. The use made of the word by the Welsh seems to slightly differ from others. The word with them is considered a great source—the middle—the abyss, or a great deep, and is allied in orthography to force, or forcing out. At any rate, whatever the origin of the word, they are named Ocean, and as such we must deal with them. The subject this time is Ocean No. 1.

It is in the Georges Creek Big Vein, and is located at the town of Ocean, near Midland, on the east bank of the Georges Creek. It ships over the Cumberland and Pennsylvania railroad, and is one of the oldest mines in the region, and will be one of the last to be worked out.

There is a large supposedly worked out territory around this mine, and much of it will be again gone over, and it may be that a large percentage of what is remaining will be recovered. With the methods of mining changed somewhat for the better, and plenty of room for improvement yet, it will result in getting a much higher percentage of coal than had been formerly gotten at this operation.

Ocean No. 1, like all the the large mines of the Consolidation Coal Company is a slope, though the original Ocean No. 1 was a drift. The haulage here is still a source of considerable friction, and always will be until they get adequate power. The present system of com-

pressed air motor haulage is a good system of haulage, but it is overtaxed, and any method of haulage that is overdone will give them the same annoyance. Another fruitful source of trouble with the haulage is the condition of the roads. Roads should be kept properly drained and cleaned. If this is not done in a big mine like this with its long hauls and more or less coal falling off the cars, soon results, if not constantly attended to in a condition that makes the cost of hauling look high. Good roads seems to be the cry all over the State at present, and nowhere are they needed more than in the coal mine. These should all be of stone, brick or concrete. This seems expensive at first, but in the end would save money for the company.

The manway has been made a first-class road way now for the miners to travel, and if some work is done on it occasionally, in the spots that may get bad, it will always be a source of satisfaction to everyone interested.

This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	132,800	458	290
Intake to new lye	3,240	15	216
Intake to old lye	3,360	20	168
Intake to straight sump	2,527	18	140
Intake to 2nd left	2,320	12	193
Outlet of 7th right, straight slope	3,420	26	132
Outlet of 8th right, straight slope	7,695	45	171
Outlet of 9th right, straight slope	3,440	25	138
Intake to 10th and 11th slope	3,465	22	157
Outlet of straight heading, dip	10,125	19	553
Outlet of Hawkin's dip	7,880	15	525
Intake to wet heading, dip	5,040	7	720
Intake to Welshes slant, across sea	3,520	21	168
Intake to Miller's across sea	4,600	27	170
Intake to Carney's, across sea	5,320	28	190
Intake to 8th right, across sea	6,000	21	286
Intake to 9th right across sea	5,250	15	350
Intake to 10th and 11th right, across sea	2,570	23	112
Intake to Loar's, across sea	7,240	21	345

There are outlets at many points adjoining this mine.

Ocean No. 3. or Hoffman

William Sleeman, Foreman.

Hoffman Mine, or Ocean No. 3, of the Consolidation Coal Co. is located at the small town of Hoffman, near Eckhart, and ships over

the Eckhart branch of the Cumberland and Pennsylvania Railroad. The water ditch or drainage tunnel, over two miles in length, spoken of in my last report, was completed in the summer of 1906, and the water turned in. It has proved to be the greatest economic project this company has undertaken in years, and has relieved the strain on the question of standing bodies of water, by which much of this mine is surrounded. The Borden Mining Co's. shaft mine that has been abandoned many years is presumed to be filled with water, and much of Hoffman being lower than the workings in this mine, it has been a constant source of apprehension on the part of all parties connected with mining in this vicinity. While the danger from this supposed large standing body of water is not entirely eliminated; yet, the fact that the tunnel is through, and capable of running a large amount of water, relieves the situation immensely. If proper precautions are continued as they have been in the past, this large amount of water can be let off gradually, and without probable danger to anyone.

For the reason that this mine is the lowest in the Georges Creek Basin, the question of drainage here has always been a serious one. Pumps were in most headings in the mine, and a large pumping station maintained at great cost, at what is known as the New Shaft. This pumping station has been spoken of in previous reports.

The ventilation at this mine has been improved somewhat during the year. In about the same ratio that improvement is apparent everywhere. During the year the shift work has continued, though in a lesser extent than in the previous years; and, before another report is made, the mine will be in such shape that most of this kind of work will be abolished. There has not been as much recklessness in riding up and down this long and dangerous slope as noted in my last report. The manway has been put in fairly good condition, and with the co-operation of the company, most of the workmen now travel out that way. The new mine still continues to mine large quantities of good coal that was abandoned, and will do so for many years to come.

The haulage question is a serious one here; but before this report is printed, this question will be in part solved by the opening of a mine on the Vale Summit side of this abandoned coal.

It is gratifying to see the spirit manifested by all the companies in going after this character of coal. It is true, that when they do, the reason for so doing maybe entirely selfish; but, in results to the communities where this is going on, any thoughtful person knows how much they are benefited by it. Coal is one of the products that has a very small percentage of its value in its original state. It is the labor employed in marketing it that gives it most of its value; therefor, the more labor cost is paid in mining this abandoned coal, (and no one will claim that it can be mined as cheaply as solid coal,) the more money is circulated wherein this labor is performed.

I have sometimes been forced to call the attention of the company to the matter of cut-throughs in the new mine. I trust this may not

be necessary in the future. This indicates about the condition of the new mine:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man.
Intake from the air holes	18,640	65	286
Outlet at the mouth	19,370		
This indicates the condition of the slope.			
Intake from the fan	56,560	200	482
Intake to 8th right, Klondyke	3,140	20	157
Intake to 6th and 7th rights	5,670	30	184
Intake to 4th left	1,800	4	450
Intake to 3rd left	2,520	8	412
Intake to 1st left	3,300	8	319
Intake to Scobies Heading, straight	3,100	14	221
Intake to Tippen's 1st cross	7,500	26	288
Intake to 2nd cross	4,720	30	157
Intake to 1st cross, northside	4,240	12	353
Intake to 2nd cross	7,250	18	403
Outlets at many points around this mine.			

This is the first year there has been any coal mined by the use of machines at this operation. Their use has not been very satisfactory, especially in rooms, the roof not being as good as at some of the other operations under this company, where they have met with more success.

CONSOLIDATION COAL COMPANY.

Ocean No. 3½, or Eckhart

James Weston, Foreman.

In April of 1906 Eckhart started to ship coal. It was not intended to begin shipments so soon; but owing to the coal trade, and that the output had temporarily lessened at some of their other mines, they began shipments with a daily output of about 500 tons. This they have about maintained up to the present time, and while there is at times a temporary shortage in this output, yet, if much of the necessary dead work or laboring work is done by the company this amount may be maintained for a long time.

The ventilation has been generally good; but it is one of the many mines that most of the closest coal had been worked out, and this causes much loss of ventilation that cannot very well be avoided;

though they are very much alive to the necessity of having good ventilation, because they know that only in that way can they recover the large portions of this valuable coal that I hope and believe they will recover.

The drainage at this mine is also a problem that will not be satisfactorily solved until they connect with the main drainage tunnel at Hoffman.

Eckhart is a slope, and is located in the heart of the town of Eckhart and ships over the Eckhart branch of the Cumberland and Pennsylvania Railroad. This place is the terminus of the road bearing its name.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	32,720	100	327
Outlet of Price's heading	10,260	44	233
Intake to Winner's heading	3,980	38	105
Intake to dip heading	2,500	9	279
Outlet at the slope	29,700		

The mining here is all done by pick and the places are generally well driven and safely timbered.

Astor Mine

John Leake, Foreman.

Preparations are being made to begin operations at the old Astor slope mine at Vale Summit. There is a large territory of good coal that can be reached from this place, and if the proper methods are pursued, it will become another of the large producing operations of this company.

It is located near Vale Summit and it is intended to haul the output for the present at least, over an outside tramroad to Hoffman dump by means of a locomotive. Much of the coal in Hoffman New Mine will also come this way, becaues it will run to openings made on the Vale Summit side of this mine, and thereby save a long up-hill drag of the loaded cars by horse power.

This will help the old town of Vale Summit, and will probably move it from the rut it has been in for the last twenty-five or thirty years.

OCEAN NO. 7, OR KLONDYKE

Jonathan Jenkins, Foreman

Ocean No. 7, the banner mine of this Company, and of the State, perhaps of the whole country, still maintains its high standard as to output. Last year there was mined in this mine 1,024,859 tons; of this amount 293,928 tons was mined by machines. This year the mine's output was 1,076,117 tons; 51,258 tons more than in 1905. Of the total tonnage, 232,234 tons were mined by machines, a net loss in machine-mined coal of 61,964 tons. The Company is to be congratulated on the high standard of efficiency displayed in the management of this mine, for while it is not perfect, and many things could be improved about it, yet taking everything into consideration it is probably one of the best managed mines upon such stupendous scale in the country. Such a large enterprise is easier criticised than administered; and it may be the critics would find it less difficult to point out the slips of the management than to rectify them. The mine is located near the town of Lord, about two and one-half miles north of Midland. The coal is shipped over the Carlos branch of the Cumberland & Pennsylvania R. R., a siding or branch line which takes the coal from this mine and from Carlos mines. The manways have been much improved here during the year, although there is still room for improvement, and I trust the improvements will be made. The ventilation has, as usual, been good, yet with all that has been done there remain places here and there where the carbonic acid gas, or "black damp" interferes with the working places. There is more coal mined here by machnes than at any other operation in the State, in fact more than all other operations in the State taken together. There is need of change in the mining laws, relative to coal mined by the use of machines. I have always contended, and have always tried to have about three times as much air in a heading where machines are being used, as in those operated by pick. I know this ratio should be maintained to obtain anything like a healthful condition in the mines, if temperature and other conditions are equal. The dangerous practice of riding the slopes is still being kept up at this mine, not so much by the miners as the laborers and the under bosses of various kinds. There is no need for this, and it should be stopped at once. If any man's duties demand his presence in any of these slopes, it is enough that he take this necessary risk, without going there merely to save a walk. If they must go out during the day, it would be a better example to set the men, for the bosses to start a few minutes socner and walk out. There has been a good ambulance provided for this mine, something that was needed. The large direct-connected haulage engine placed here during the year has proved a great aid in maintaining the large output. It is the largest stationary haulage engine in the State, and should be sufficient to do all the haul-

ing of the coal from these slopes until they are done. This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	149,980	611	245
Outlet of 2nd left straight, new slope	5,600	12	467
Intake to 2nd le5t 3rd cross	4,390	25	176
Intake to 2nd left, 1st cross	3,640	32	114
Intake to 2nd eight straight	2,940	18	163
Intake to 3rd left straight	2,580	22	117
Intake to 3rd left, 1st cross	1,880	10	188
Intake to 3rd left, 3rd cross	3,280	22	149
Intake to 3rd left, 8th straight	1,550	22	70
Intake to 4th left, 8th straight	3,000	26	115
Intake to 4th left, 1st cross	2,890	30	96
Intake to 4th right, 1st cross	3,840	33	116
Outlet of 5th right, straight slope	4,160	28	149
Intake to 5th right, 6th cross,	2,660	23	116
Intake to 2nd right, straight, middle slope	5,900	60	98
Intake to 3rd right, straight, middle slope	4,500	16	281
Intake to 3rd right, 1st cross, middle slope	3,600	35	103
Intake to 4th right, 1st cross, middle slope	3,400	35	97
Intake to 4th left, straight, middle slope	3,840	30	129
Intake to 2d. right, 1st cross, old slope	5,900	20	295
Intake to 3rd right, 1st cross, old slope	2,205	21	105
Intake to 4th right, 1st cross, old slope	8,400	36	233
Intake from the small fan, new mine	64,890	203	320
Intake to straight heading, new mine	7,040	48	146
Intake to all on top of plane, new mine	9,585	40	239
Intake to back scuttle, new mine	8,750	15	583
Intake to 1st left, new slope	11,055	80	138
Outlets too numerous to measure.			

OCEAN NO. 8

Thomas McFarland, Foreman.

Ocean No. 8, is located at Midland, on the west bank of Georges Creek, and ships over the Cumberland & Pennsylvania R. R. This mine is the most convenient one for Midland people to work in, but only a limited number of miners can be used. Number 8 proper is rapidly being worked out, and if it were not for the fact that they are going after much of the coal that was partially lost during the "squeeze" in Q X section of Ocean No. 1, No. 8 would very soon be

done. There has been considerable coal taken out of "Cullen's heading" during the year, with prospects good for the recovery of very much more. "Cullen's" is one of the headings that was thought to be lost. There is a fair chance that in some of the other headings of this squeezed section of Ocean No. 1 there may yet turn out to be a large quantity of coal that can be saved. The ventilation in the Big Vein has been good during the year.

This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	25,110	86	302
Intake to 1st left, short heading	3,890	36	108
Intake to 2nd left	3,225	20	161
Outlet near the mouth	20,655		

Drainage is rather poor here.

TYSON NO. 8

Thomas McFarland, Foreman.

The No. 8 Tyson has not been very much of a success. Opening in a part of the east side of the syncline, the main heading has steadily gone to the dip. The coal has also been very irregular, never very high, and sometimes cut out entirely. The troubles from this source and from water have been legion. Generally speaking, the ventilation is good, although sometimes when they try to penetrate a fault without carrying their air-course with them, they have a serious time in bringing up their ventilation. It is up-hill work, and sometimes it looks as if the opening had been made in the wrong place. They have a separate dump and scales at Tyson Mine, but use the same side track on which to load their railroad cars. The coal is lowered to the dump by an incline plane. It is a desirable place to work, where it is dry and free of faults.

This was the condition of the ventilation on a visit during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	14,400	23	626
Intake to 1st right	6,170	12	514
Intake to main heading and second right	4,680	10	460
Outlet near the mouth	14,580		

PUMPING SHAFT, TYSON AND WAYNESBURG

This place is now mining some coal from the "Tyson" and some from the "Waynesburg" or Koontz seam. The coal is used exclusively for boiler use at the pumping station, and while there is no pumping going on here, they operate an air compressor that furnishes power to run the pumps, motors and machines in the mine. The opening made into the Waynesburg coal does not show up very high, but it is said to be a first-class steaming coal, and the Company is developing it, in the hope of shipping it some day.

TYSON NO. 9

P. J. Kenny, Foreman.

Situated at the upper end of the "Y" and shipping on the main line of the Cumberland & Pennsylvania R. R., Ocean No. 9 is one of the oldest openings in the Tyson coal seam in the northern end of the Georges Creek basin. This operation has three openings, but at present only two of them are being worked. The opening is lettered, as A, B, and C. C opening encountered serious local faults, and has been temporarily stopped. B opening had some local troubles, but they are beginning to get away from them, with prospects looking better. The locomotives on the C. & P. R. R. use all the output from A opening. The drainage here has been a serious drawback; the disturbed condition of the strata making it rolling and consequently hard to properly drain.

This is an average inspection during the year.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake to 1st right, B opening	1,800	11	164
Inside cut in 2d. right, B opening	1,000	3	333
Intake to main heading	2,515	11	229
Intake to 1st right, A opening	3,200	4	800
Intake to main heading	7,200	2	3,600
Outlet of 1st cross in 1st left	6,000	14	429
Return to Fan	12,800	55	233

PIEDMONT & GEORGES CREEK COAL CO.

WASHINGTON NO. 1

Martin Condry, Superintendent P. H. Brown, Foreman

Washington No. 1 of the Piedmont & Georges Creek Coal Co. is in the Georges Creek Big Vein, and is located in Washington, a small

village lying between Eckhart and Hoffman. The mine has been most of the time in much better shape as to ventilaton, than in previous years. This is due to the fan being put in here, as noted in my last report.

There is but one heading that has not been up to the standard during the year, and that the farthest from the fan. With the great amount of waste between the fan and this heading it is impossible to do any more than is being done, and the workmen generally realiz ing this, do the best they can.

There have been some improvements in the haulage here during the year. Lyes or side tracks have been made inside to shorten the long heavy drag on the horses from the working faces to the outside, the grades here being all against the load. This, and other improvements has increased the tonnage at Washington No. 1 about 10,000 tons during the year, a very subs'antial increase.

They ship over the Eckhart Branch of the Cumberland & Pennsylvania Railroad, and the car supply is usually good.

The intake and outlet of the fan follows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	13,000	40	325
Outlet near the mouth	12,960		

WASHINGTON No. 2

Phillip Brown, Superintendent — W. E. Brown, Foreman

The Washington No. 2 mine of the Piedmont and Georges Creek Coal Co. is located at Eckhart and ships over the Eckhart branch of the Cumberland and Pennsylvania railroad. This is the best operation in the Tyson in the upper end of the region, and is rapidly taking front rank in point of output and equipment with the best of them in any seam. During the year an electric haulage plant has been installed, and the output materially increased, being over 30,000 tons more than the preceding year. The expense necessary to put electric haulage in mines working seams of the size of this one, would make the average man consider well before doing it. In some instances rock had to be blasted up as much as seventeen feet, and in others nearly as much blowing down in order to lower the grade for a proper mine haulage. The result has been highly gratifying to the management; where they had been hard pushed to hip 300 tons per day, they can now ship from 600 to 700 tons, while I predict a still further increase.

The getting of another bore hole from the surface down through the

Tyson into the Big Vein below has drained a large territory that was formerly under water. A six inch hole, such as is put down here, running constantly is worth much to this company.

The ventilation here is generally good, but with the low seam, and much blasting being done, miners oftentimes have some smoke to contend with.

An average inspection follows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	38,640	90	427
Intake to 5th and 6th south, new mine	2,100	5	420
Intake to 14th south, old mine	3,150	9	350
Intake to 16th south, old mine	2,160	4	540
Intake to 17th south, old mine	1,950	8	244
Intake to 18th and 19th south, old mine	2,320	12	193
Intake from 1st to 2nd left, old mine	4,080	6	680
Intake from 9th to 10th north, old mine	1,200	6	200
Outlet of 7th and 8th north, old mine	1,920	10	192
Outlet of 3rd and 5th north, old mine	2,475	11	225
Outlet of 1st north, old mine	2,580	7	369
Outlets from combined openings	37,320		

WASHINGTON NO. 3

M. P. Fahey, Superintendent — John Fahey, Foreman.

Located on the west bank of Georges Creek, near Westernport, Washington No. 3 of the Piedmont and Georges Creek Coal Co., is one of the large operations in the Davis 6 foot or Lower Kittanning. The largest individual increase under this company has been at this mine. In 1905 the output was 108,619 tons, while in 1906, the output was 186,332 tons—an increase of 77,713 tons. This increased tonnage was largely due to the previous preparations being made and the up-to-date methods employed. The mine is generally in fair condition; but there is so much "solid shooting" done here, that there is usually a large amount of smoke, no matter what the volumn of air.

The marsh gas, or carburetted hydrogen noted in my previous report as being noticed in small quantities here, is still present, though not just in the same locality. The first right is the only place where this gas is generating now, and it is very carefully watched. I again repeat that companies and workmen cannot exercise too much care in dealing with this highly explosive gas, and I trust that I have impressed every man connected with it of the great danger from any carelessness on the part of any one that might result at any time in

a catastrophe, similar to what is occurring with horrifying frequency in some of the states adjoining. With all parties using due caution, let us hope that we may escape the calamities that result from taking any chances with a condition that is always dangerous, be the amount of gas generating ever so small. The hauling here is still done by mules, and the increasing need of some mechanical haulage is every day more apparent.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	29,640	136	217
Outlet of 1st right	5,320	18	295
Outlet of 1½ right	3,140	10	314
Outlet of 2nd right	3,000	10	300
Outlet of 3rd right	2,800	15	187
Intake to 5th left	6,520	63	103
Outlet at the mouth	28,800		

WASHINGTON No. 4

M. P. Fahey, Superintendent — John Fahey, Foreman.

This mine was bought by the Piedmont and Georges Creek Coal Co. from the Piedmont and Cumberland Coal Company in November 1906, and has since been operated as Washington No. 4 of the Piedmont and Georges Creek Coal Co. It was known formerly as Hampshire or Brown's mine.

It is in the Davis 6 foot or Lower Kittanning and is on the east bank of Georges Creek, and ships over the Cumberland and Pennsylvania railroad. The mine has a good fan, and is very well ventilated; though when first opened the careless work done then in robbing close around the mouth, regardless of the future of the mine, has resulted in some difficulty in maintaining proper air courses.

In the left side of this mine is some carburetted hydrogen, or marsh gas, and as there is some work done in close proximity to this gas, all hands engaged therein need to be careful, taking no chances whatever.

This is an inspection some time after being acquired by the Piedmont and Georges Creek Coal Company:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	25,440	56	454
Intake to first left	3,200	8	400
Outlet of second right	6,700	20	335
Outlet of third right	4,400	18	244
Outlet near the mouth	23,370		

BARTON & GEORGES CREEK VALLEY COAL CO.

CARLOS MINES

Howard Hitchins, Superintendent.
Harry C. Hitchins and Robert Duncan, Foremen.

Carlos is a mining town located at the terminus of the Carlos branch of the Cumberland and Pennsylvania railroad. Over this branch, the output of the Carlos mines is shipped.

The relations existing between employer and employe at this mine is excellent, and it seems to have been brought about by an effort to treat the workmen with the consideration they deserve. The Hill mine has been worked out during the year, and despite this fact the output has been some larger than the preceding year. The output here is all by pick, and the quality of coal mined is said to rank very high.

The pumps mentioned in my last report are not used any more. The Consolidation Coal Co. having driven a water-way from Ocean No. 1 into Conrad Slant of Carlos, and tapped the water in two places and are running it from there to Ocean No. 1 to Hoffman, and into the new drainage tunnel. This has been a good thing for this company, and in the end will be good for the Consolidation Coal Co.; as it will avoid the danger from standing water that would be sure to accumulate if they had to depend upon pumps entirely to remove it.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	25,160	120	251
Intake to second right	7,280	40	132
Intake to Conrad's slant	4,620	35	182
Outlet of Ten heading	3,900	30	130
Outlet at mouth of slope	29,160		

BOWERY COAL CO.

BOWERY MINE

Robert Griffith, Superintendent and Foreman.

The Bowery Coal Co. is operating in the Big Vein or Pittsburg seam, and in coal that was thought to be abandoned, and from which they are getting a good quality of coal with prospects good for some

time. There is no more interesting work than going into the old work of other times and other men and extracting the means of living for many people in the communities where it is being done. This is what the Bowery Coal Company is doing, and will continue to do for some time to come. They are now working in the old Blaen Avon coal, and later they will go down the Bowery slope where they expect to recover more than at any other point they have worked.

This mine has shipped about four times as much this year as last; have made eighteen new cars; improved the dump; repaired the tramway and built a new fuel dump for local use. This trade here is a good business in itself.

The ventilation is by natural means. The method of driving holes out to the surface where they are near the crop line, being found the best and cheapest way to ventilate this character of work. They ship over a branch road of the Cumberland and Pennsylvania railroad that is known as the Midlothian branch.

In this kind of mine air readings would not indicate its condition, because of the many holes and falls between the place where the readings were taken and the working places.

This company is contemplating a large development of the Tyson near where they are now operating the Big Vein. It is to be hoped that they may succeed in this undertaking.

WACHOVIA COAL COMPANY.

MONTELL MINE

Charles E. Davis, Superintendent.

Tony Lewis, Foreman.

Montell mine of the Wachovia Coal Co. is located near Clarysville, and ships over the Georges Creek & Cumberland railroad. The coal seam worked here is the Lower Kittanning or Davis 6 foot. It is the only operation in the 6 foot in the upper end of the Georges Creek Basin. It is on the eastern slope of the syncline near Dan's Mountain, where the coal measures all crop out. The mine has done much better than in any of the former years of its existence, having an output over six times greater than in the preceding year.

It is gratifying to note this improvement, becase of the prejudice existing in the minds of many against anything in the shape of coal except Georges Creek Big Vein.

Machines of the puncher type are used in this mine, and about eighty-five per cent of the output is mined by this method.

The ventilation here is inadequate with the present facilities, particularly because of the use of machines, and the consequent dust and

smoke from cutting and blasting. With the means at hand, the management do well to keep the condition as good as I usually find it.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the Fan	9,370	30	312
Intake to the return air-way	6,180		

GEORGES CREEK BASIN COAL CO.
(Was Braddock Run Coal Co.)

Pine City Mine

W. H. Williams, Superintendent and Foreman.

The Braddock Run Coal Co. that operates the mine known as Pine City Mine, near Clarysville, has been superseded by the Georges Creek Basin Coal Co. I understand this plant will be put in operation shortly, and thus a means of livelihood furnished for a considerable number of men.

This is a very good coal seam worked here, and if properly prepared for market, there is no doubt of it being a paying proposition.

The manner of reaching the railroad by a bucket conveyor is some handicap. This conveyor I have described at length in one of my former reports; but, even that can be overcome, and I think the outlook here justifies it.

This Company shipped no coal during 1906.

GEORGES CREEK COAL & IRON CO.

Engineside

R. L. Somerville, General Superintendent.
John F. Somerville, Assistant Superintendent.
R. T. Spear, Foreman.

The Georges Creek Coal & Iron Company is one of the pioneer shippers of Georges Creek Big Vein, and will be shipping this valuable coal when many of the others will be done.

Engineside is located near Lonaconing, on the west bank of Georges Creek. The ventilation at times, in isolated spots has not been so good, though the management went to work and applied any remedies they could think of, or was suggested to them.

They are surrounded by so much old work that had been abandoned

so many years, and their fan being an exhaust entirely, the accumulations of carbonic acid gas, or black damp, drawn out of the old work is more than the fan is able at all times to carry off.

This is one of the best mines in which to work in the region; but, like most others of its kind, the competition to stay in it is so great, that men often have to work too many together, because of this. The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake near the mouth	23,040	120	192
Intake to Cutter heading	3,240	24	135
Intake to second right	1,920	21	96
Intake to Fleming heading	3,160	28	113
Intake to Peebles heading	3,600	19	189
Intake to Upper Heading	2,620	16	164
Return to the Fan	26,855		

PINE HILL MINE, OR NO. 3

John Boyd, Foreman.

Pine Hill kept going up to February 20, 1907, when it worked its last day. This mine was in good condition all the year, and up to its being worked out was one of the best in the region in which to work.

The management kept most of the men at work up to a short time before the mine was finished. They ship over the Cumberland & Pennsylvania Railroad.

This inspection indicates the condition of the ventilation:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the air shaft	14,970	20	748
Outlet near the mouth	15,210		

NOS. 9 AND 10

John Boyd, Foreman

No. 9, or Columbia is located near Gilmore, and is in the Big Vein. They ship over the Georges Creek & Cumberland Railroad.

This mine is opened on a part of the Old Midland Mine of the Hampshire & Baltimore Coal Company, one of the pioneer coal companies now defunct.

It was necessary to acquire the Midland property in order to reach some coal of their own that lay beyond. The coal here, like the Midland, is exceptionally hard; though of first-class quality. It is rapidly being worked out, and ere this report is printed, Columbia will probably be done.

This indicates the condition as to ventilation:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Outlet near the mouth	15,630	15	1,042

No. 10 is under the same management, and is on the other side of the same hill going around the crop-line after the coal left in by the old Midland Mine. This operation uses the same dump as Columbia and transports the coal down an incline plane. It is about worked out; in some places they found the coal taken out almost to the grass roots. If this kind of policy had been pursued by all the operators, and had it been pursued everywhere in this mine, many of them would be still working big vein that are now out of the business.

MINE NO. 12

John Boyd, Foreman.

When the last report was written, No. 12 was advancing. When this one is written it is coming back. No. 12 is located at Gilmore on the east side of Georges Creek, and ships over the Georges Creek & Cumberland Railroad. It is in the Georges Creek Big Vein and is a small patch standing out by itself. An incline plane is used to convey the cars from the mine to the dump, and they also have an incline plane on the inside, the grades being from 4 to 5 per cent in the mine. This company have been very successful with these inside haulage planes, and I think they are by far the most economic method of haulage, where the grades will permit of it, that I see.

The ventilation is at all times good, air-holes being out on the right and left sides of the mine.

The following will indicate the amount of air that comes from both sides:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Outlet near the mouth	20,640	60	344

MINE NO. 13

John Boyd, Foreman.

No. 13 is one that is added to the list of mines of this company and it is in the Georges Creek Big Vein Coal. It is located on the east side of Georges Creek at Lonaconing, and ships over the Georges Creek and Cumberland Railroad.

This mine is opened in a strip of coal belonging to this company adjoining the Coromandel Coal Company's Mine, Big Vein. While at no time can there be any great force of men employed; yet, the amount of coal they are likely to get here will keep the number of men they can employ working for quite a few years. The work is considered very desirable here, because of its convenience, and the general good conditons existing. They shipped but 665 tons in 1906; but, will show a very large increase in 1907.

The ventilation is by natural means, and generally good.

TYSON NOS. 16 AND 17

Douglas Somerville, Foreman.

Tyson No. 16 is working, while No. 17 is temporarily idle. This company have opened the Tyson directly above Engineside, and I have described at some length in my previous report the large and expensive plant established here. It now promises to bring some returns for the large outlay of money that has been expended, having encountered some faults here, which I hope and believe they are now about through. They are at present mining a considerable amount of coal, having an electric haulage irstalled they are able to handle very much more, and will do so, I am sure, in the near future. The mining of this coal is no experiment in this region, and in the future this and the other small seams is something that every thinking person on Georges Creek knows must be developed in order to supply the ever increasing population of this part of the State.

The ventilation is generally good, an exhaust fan having been put in during the year.

This inspection is an average one:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	14,420	30	481
Intake to left side of mine	3,600	13	277
Outlet of right side	2,280	8	285
Return to fan	15,360		

COROMANDEL COAL CO.

BIG VEIN MINE

Duncan Sinclair, Superintendent. William Thompson, Foreman.

This operation has mined about 28,000 tons of good Big Vein coal during the year, that was thought would never be gone after.

This mine is situated at Lonaconing on the east side of Georges Creek and ships over the Georges Creek and Cumberland Railroad. They have laid 3,750 feet of tramroad up to openings that were made where they expect to get a large amount of good marketable coal. It is also intended to go up the other side of the same hill—in fact they have started the work now and before this report is printed, they will be shipping coal from that side.

The ventilation has been generally good here, more attention having been paid to it than formerly. This is another of the mines where air readings would not prove anything.

NEW CENTRAL COAL CO.

KOONTZ NO. 1

Duncan Sinclair, Superintendent. William Thompson, Foreman.

The continued success with which they are getting out the coal at this operation is something they deserve credit for, considering the difficulties. There is no place in the region mining Big Vein under more trying circumstances than here, and yet they are continuing year after year to maintain a very nice output.

The ventilation is most of the time good and considering the conditions that I have spoken of before, it is about all that could be done.

They ship over the Georges Creek and Cumberland Railroad, and work about every working day in the year, the car supply always being good. They are making preparations to go up around the outcrop on the left side of the mine, where they expect to have many years work.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	42,760	50	855
Outlet at the mouth	44,250		

The miners do not get as much air as the fan readings would indicate.

KOONTZ NO. 2, TYSON

William Thompson, Foreman.

Koontz Tyson is still one of the best coal seams in the upper end of the region, and if given the attention it merits it could be made one of the large, producing and good paying mines.

There is entirely too much work under this company for one man to personally look after, and when there is no responsible head on the ground, many things that require immediate attention, and would perhaps save much time and money, are allowed to go unattended.

The ventilation is fairly good; the same thing I spoke of in my last report is to some extent true yet; that is, the pillaring of the big vein greatly disturbs the Tyson when it is being operated directly over the pillaring, as is being done here.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	12,270	20	613
Outlet of straight heading	4,620	2	2,310
Outlet of first right	2,740	10	274
Outlet of second right	1,520	4	380
Outlet of third right	1,210	2	605
Outlet at the mouth	13,640		

MARYLAND COAL CO.

APPLETON MINE

Frank E. Brackett, Superintendent. William Dodds, Foreman.

The Appleton Mine of the Maryland Coal Company is in the Big Vein and is located near Lonaconing on the west side of Georges Creek. They ship over the Georges Creek and Cumberland railroad.

This mine is one of the most desirable in the region in which to work; and if they had observed the cut-through law, as they are generally doing now, it would have been ideal.

The miners all get the same number of tons per year; that is, all those who work steadily, and it is a great source of satisfaction to every one concerned I have spoken of this subject before; but it is one that too much cannot be said on, and if some of the other companies would follow the same course, the feeling of hostility that is ever apparent, would, I am sure, in part disappear.

Inside planes are used here for main haulage with horses to do the

gathering on side headings, and it has always seemed to work smoothly. A locomotive hauls the coal on a tramroad from the mine to the dump. The ventilation is generally good, being furnished by an exhaust fan.

This is an average inspection for the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Combined intakes of manway and haulage...	42,740	97	441
Intake to all right side.....	7,820	30	261
Intake to second left.....	5,300	22	241
Intake to 1st left and Monkey heading... ..	7,820	25	313
Return to the fan.....	49,634		

TYSON NO. 1

William Dodds, Foreman. Christopher Dodds, Ass't Foreman.

Tyson No. 1 is proving to be a good operation in the Tyson. It is being developed along up-to-date lines, and no doubt, in time will produce a large output. It is not being pushed with the vigor that it would seem to merit but, the reason for that of course, I am unable to give.

During the year it was idle much of the time and other people working the same coal running nearly full time. I hope for the sake of Lonaconing and vicinity that this apathy will disappear and Tyson No. 1 will take its place where it belongs, among the large producing mines.

They have a short plane up to the mine which is about 100 feet above the Big Vein, and dump their output upon the same tipple as Appleton. The fan spoken of in my last report is working, and this is what it shows:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan.....	13,170	12	1,097
Outlet at the mouth.....	13,320		

NEW DETMOLD MINE

Hubert Worgan, Foreman.

The Patton mines output was mostly taken out New Detmold mine, the Patton being worked out: what is known as New Detmold is al

that remains.

The coal is shipped on the Georges Creek and Cumberland Railroad and the mine is located near Lonaconing on the west side of Georges Creek. Since the Patton mine is done they do not operate the large fan but have a small fan at New Detmold that keeps the mine in good condition as to ventilation.

The management here are experiencing considerable trouble with drainage, having not made ample provision for draining the flat work they knew they were coming to.

This mine does not work very steady.

The following from the fan indicates the condition:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan.....	9,740	30	325
Outlets are in old work			

AMERICAN COAL COMPANY.

JACKSON MINES

John T. Dobbie, Superintendent. Robert Gunning, Foreman.

The Jackson mines in the big vein are being worked out slowly, but surely. It is true they are still advancing around "Coon Hollow" up Charlestown, and will probably open another opening up there; but on the other side they are about done.

The condition in the big vein is generally good, the ventilation being all that could be desired. The hauling is still done by the locomotive on the tramroad, and the gathering done by the horses and mules at the mines.

There has been a considerable change in the officials during the year; new blood being generally infused into the local management. What effect this will have in the operations here remains to be seen.

No readings are required in the Big Vein, as every place is working close to the surface to which holes are made for the purpose of ventilation.

They are located on the west side of Georges Creek near Lonaconing, and ship on the Georges Creek and Cumberland Railroad.

TYSON NOS. 1 AND 2

Robert Gunning, Foreman.

At this place the Tyson differs somewhat from any other in the Georges Creek basin. It has improved materially in No. 1 mine dur-

ing the year, the management having cut through a serious fault in their first right heading finding very good coal on the other side, in fact more like the Tyson elsewhere, than in any other part of the mine.

The ventilation has been greatly improved during the year. An air shaft was sunk, doors hung, brattices built, air courses brought up to the headings and cut-throughs made with the effect that the mine is very well ventilated.

WAYNESBURG OR KOONTZ NOS. 1 AND 2

Robert Gunning, Foreman.

The Waynesburg or Koontz seam, lying about 125 feet above the Tyson in the Dunkard formation is being operated, and it is odd as being the only place in the State working this coal.

Mines. No. 1 and 2 are located directly above the stationary or No. 5 in the big vein. This coal, while somewhat troubled, is said to be very high in quality. The No. 1 mine is mostly pillar work, while No. 2 is all advance work.

The ventilation is always good in No. 1; but the same cannot be said always of No. 2. It is true they are bothered greatly with water, being so close to the surface. With but a limited area of this coal to mine, it can hardly be expected that they would put in expensive ventilating apparatus.

This is the condition as to ventilation:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	5,780	20	289
Outlet at the air-hole	6,140		

They lower their output by means of an incline plane to the Big Vein tramroad below, and from there the locomotive hauls it to the dump. They have been driving a prospect drift in the Tyson close to this plane. It is to be hoped that it may prove good for this company have a large area of Tyson coal.

CALEDONIA MINES

William Russell, Foreman.

The Caledonia Mines of the American Coal Company are located at Barton and are the only mines of this company shipping over the Cumberland and Pennsylvania Railroad. The mines in the Big Vein

are a series of openings like this company's Jackson Mines, with a tramroad on which the hauling is done by a locomotive to the head of the incline plane from where they are lowered to the dump. This plane is the best in the region from every standpoint. It is uniform in grade, good tracks and rollers always kept in order. The plane runner who is an expert in his business starts a trip out and it does not vary in speed at any time until it stops at the weigh scales at the bottom of the plane.

The Big Vein has reached the limit of going ahead and the coming back will not take as long as it did to advance.

Ventilation is always fairly good, considering that it is all by natural means.

There are four openings in the Tyson with planes leading up to them from the big vein tramroad. The Tyson seam here is from 5 to 7 feet high and is as good, if not better, than much of the big vein, and many of the miners like it better to work in.

The ventilation is generally good in the Tyson, though it is all by natural means. I have never visited these mines and been unable to get air readings.

These readings indicate the condition:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake to No. 1 opening	5,640	4	1,410
Outlet at No. 2 opening	6,970	30	232
Intake at mouth of No. 3 opening	4,060	20	203
Outlet at mouth of No. 3 opening	4,190		
Intake at mouth of No. 4 opening	6,720	16	420
Outlet at opening through hill	7,140		

PIEDMONT MINING CO.

PEKIN MINE

J. J. Dobbie, Superintendent. Charles Bowden, Foreman.

The Pekin Mine of the Piedmont Mining Company is located at Pekin, and ships over the Cumberland and Pennsylvania Railroad. They are working the big vein and are shipping as good coal as any in the region, and will work for many years to come. Already they have five openings and expect to make two or three more before the end of their advance work is reached. This year they have built 1,000 feet of tramroad and have made their fifth opening. The hauling is done by a locomotive on a tramroad skirting around the property; a plane is used to lower the output to the railroad below. Horses do the gathering at the various openings.

The ventilation is generally all that could be desired, the system

Statistics of the Production of Coal in Maryland in 1906

ALLEGANY COUNTY

Name of Company	Name of Mine	Employes at the Mines					Days Worked	Output in Tons			Vein of Coal Being Mined
		Miners	Drivers	Insd. Lb.	Outs. Lb.	Total		Pick Mined	Machine Mined	Total Output	
M'Mullen Bros. Coal Co.	Partridge Run	5	1	..	..	6	200	3,000	None ..	3,000	Brookville or Bluhaugh
Cumberland Basin Coal Co.	No. 1 & 2	12	1	1	1	15	40	2,000	"	2,000	Brookville and Parker
New York Mining Co.	Union No. 2	300	28	22	65	455	257	397,136	"	397,136	Big Vein or Pittsburg
New York Mining Co.	Union No. 1	42	4	6	12	64	17	585	"	585	Big Vein or Pittsburg
Union Mining Co.	Union	102	6	6	12	126	293	136,196	"	136,196	Big Vein or Pittsburg
Midland Mining Co.	Trimble	10	1	1	2	14	190	4,818	"	4,818	Big Vein or Pittsburg
Midland Mining Co.	Enterprise	24	4	2	3	33	243	28,142	"	28,142	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 1	489	33	100	60	682	265	394,022	100,555	494,577	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 3	298	21	102	102	523	302	247,237	31,646	278,883	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 3½	113	11	41	13	178	202	109,867	None ..	109,867	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 7	814	55	139	117	1,125	275	843,883	232,234	1,076,117	Big Vein or Pittsburg
Consolidation Coal Co.	Ocean No. 8	62	5	5	7	79	284	100,305	None ..	100,305	Big Vein or Pittsburg
Consolidation Coal Co.	Tyson No. 2	8	1	..	1	10	69	3,139	"	3,139	Tyson or Sewickley
Consolidation Coal Co.	Tyson No. 7	5	1	..	1	7	285	8,039	"	8,039	Tyson or Sewickly
Consolidation Coal Co.	Tyson No. 8	23	3	2	3	31	287	15,357	"	15,357	Tyson or Sewickley
Consolidation Coal Co.	Tyson No. 9	44	5	9	8	66	305	31,435	"	31,435	Tyson or Sewickley
Consolidation Coal Co	Pumping Shaft figures	from	this	is in	in	Hoff.	Oc'n	No. 3	"		Tyson or Sewickley
H. and W. A. Hitchins Coal Co.	Borden	44	6	12	10	72	252	46.140	"	46.140	Big Vein or Pittsburg
Piedmont & Georges Creek Coal Co.	Washington No. 1	47	7	12	9	75	271	51,057	"	51,057	Big Vein or Pittsburg
Piedmont & Georges Creek Coal Co.	Washington No. 2	92	19	16	18	145	265	103,790	"	103,790	Tyson or Sewickley
Piedmont & Georges Creek Coal Co.	Washington No. 3	140	13	21	20	194	232	186,332	"	186,332	Davis six foot or Lower Kittanning
Piedmont & Georges Creek Coal Co.	Washington No. 4	47	8	8	9	72	31	4 331	"	4,331	Davis six foot or Lower Kittanning
	Pied. & Georges Cr C C	bo'ght	this	from	Pied	Cumb.	Coal	Co., Nov.	21, 1906		
Wachovia Coal Co.	Montell	14	3	3	7	27	248	3.047	12,749	15,796	Davis 6-foot or Lower Kittanning
Bowery Coal Co.	Bowery	34	5	..	3	42	275	19,125	None ..	19.125	Big Vein or Pittsburg
Barton & Georges Cr Valley Coal Co.	Carlos No. 2	30	1	2	25	33	248	217,324	"	217,324	Big Vein or Pittsburg
Barton & Georges Cr Valley Coal Co.	Carlos slope	140	12	12	.	189	..	.....	"		Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	Engineside, No.1, 16, 17	140	8	6	13	167	275	160,565	"	160,565	Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	Pine Hill	60	2	1	3	66	275	40,413	"	40,413	Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	Columbia 9, 10, 12	80	4	3	6	93	275	62,336	"	62,336	Big Vein or Pittsburg
Georges Creek Coal & Iron Co.	No. 13	25	1	1	3	30	.	665	"	665	Big Vein or Pittsburg
New Central Coal Co	Koontz No. 1	67	6	3	14	90	300	98 262	"	98,262	Big Vein or Pittsburg
New Central Coa Co	Tyson No. 1	25	2	4	1	22	300	12.000	"	12,000	Tyson or Sewickley
Coromandel Coal Co.	Big Vein	25	3	1	.	30	285	28,341	"	28,341	Big Vein or Pittsburg
Maryland Coal Co	Appleton;New Detmold	110	7	5	9	131	..	188,709	"	188,709	Big Vein or Pittsburg
American Coal Co	Nos. 5, 6, 17, Big Vein	33	2	2	8	45	294	108,418	"	108,418	Big Vein, Tyson and Waynesburg
American Coal Co	Nos. 1 & 2 Tyson	22	3	1	6	32	..	.....	"		Big Vein and Tyson
American Coal Co.	Nos. 1 & 2 Waynesburg	14	2	1	6	23	..	.....	"		Waynesburg
American Coal Co	Nos. 6, 7, 9, 10 & 13	8	4	1	16	59	206	82,272	"	82,272	Big Vein and Tyson
American Coal Co	Nos. 2, 3 & 4 Tyson	35	4	1	..	40	...	.....	"		Tyson
Piedmont Mining Co	Pekin Mine	33	3	2	12	50	270	33,900	"	33,900	Big Vein or Pittsburg
Piedmont Mining Co	Moscow Mine	15	2	1	2	20	200	19,085	"	19,085	Big Vein or Pittsburg
Moscow-Georges Creek Coal Co	Moscow No. 2 and 3	16	2	2	4	24	208	10,487	"	10,487	Big Vein and Bakerstown, or Barton 4-ft.
Chapman Coal Mining Co.	Swanton	45	6	1	6	58	150	27,852	"	27.852	Tyson and Bakerstown, or Barton 4-foot
Potomac Coal Co.	Potomac	57	8	10	21	96	218	46,763	"	46.763	Bakerstown or Barton 4-foot
Frostburg Coal Co.	Ginseng	15	2	2	3	22	65	.....	4,650	4,650	Thomas, or Upper Freeport
Phoenix & Georges Cr Coal Mining Co.	Phoenix Mine	35	3	1	12	51	220	37,418	None	37,418	Big Vein or Pittsburg
Phoenix & Georges Cr Coal Mining Co.	Elkhart Mine	20	2	1	2	25	150	15.000	"	15,000	Bakerstown, or Barton 4-foot
Cumberland & Georges Creek Coal Co.	Penn Mine	25	2	3	3	33	200	9,503	"	9,503	Bakerstown or Barton 4-foot
Piedmont Cumberland Coal Co	Brown's Mine	40	5	1	6	52	160	31,137	"	31,137	Davis 6-foot or Lower Kittanning
	This Co. was dissolved	in the	fall	1906.	b'ing	abs'bd	by the	Pied. &	Georges	Creek	Coal Company
Davis Coal & Coke Co.	Buxton Mine	132	18	22	26	198	284	195,135	"	119,135	Davis 6 foot or Lower Kittanning
Frostburg Fuel Coal Co (local use) and McCullough's Coal Co	Tyson No. 2	4	1	..	1	6	..	1.950	"	1.950	Big Vein or Pittsburg
	Big Vein (local use)	4	1	..	1	6	..	3,091	"	3,091	Tyson or Sewickley
Westernport Coal Co (local use)		2	..	..	..	2	..	279	"	279	
		4,076	358	608	692	5,734		4,181,048	381,840	4,562,888	

GARRETT COUNTY

G. C. Pattison Coal Co.	Pattison's Mine	40	6	..	3	49	200	32.086	None ..	32,086	Davis six foot and Barton 4-foot
Munroe Coal Mining Co.	Elk Run No. 1	35	5	5	10	55	225	41,700	"	41,700	Davis six foot and Barton 4-foot
Monroe Coal Mining Co.	Elk Run No. 2	25	3	2	4	34	225	23,500	"	23,500	Davis six foot and Barton 4-foot
Three Forks Coal Mining Co.	Mine No. 1	Getting ready to ship, not having shipped any during 1906									Lower Kittanning, or Davis 6-foot
Potomac Valley Coal Co.	Darwin	20	3	1	4	28	259	20,403	"	20,403	Upper Freeport, or Thomas 3-foot
Blaine Mining Co.	Dill No. 2	55	8	2	9	74	259	61,375	"	61,375	Lower Kittanning, or Davis 6-foot
Garrett Co. Coal & Mining Co	Dodson Nos. 1, 2	80	9	5	21	115	220	92,000	"	92,000	Lower and Upper Kittanning
Garrett Co. Coal & Mining Co.	Dodson No. 3	8	1	1	0	10	45	750	"	750	Lower Kittanning, or Davis 6-foot
Upper Potomac Mining Co.	Upper Potomac	45	4	2	9	60	287	33,790	"	33,790	Lower Kittanning
The Stoyer Run Coal Co.	Stoyer Run Nos. 1, 2, 3	20	3	2	6	31	285	10,344	"	10,344	Lower Kittanning and Upper Freeport
Beechwood Cumberland Coal Co.	Mine No. 1	8	1	0	2	11	46	1,782	"	1,782	Upper Freeport, or Thomas 3-foot
Nethkins Coal & Coke Co.	Bayard	..	..	0	0	..	..		"	56	Upper Freeport, or Thomas 3-foot
		336	43	20	68	467		317,732		317,732	
	Totals for entire State	4,412	401	628	760	6,201		4,498,780	381,840	4,880,620	

The output figures in this table are in long tons of 2240 pounds; the reports of other States usually express such statements in short tons of 2000 pounds. The total production of Maryland in tons of 2000 pounds during 1906 was 5,491,294.

of putting the air-holes out to the surface being practiced here with good results.

Moscow Mine

Charles Bowden, Foreman.

This mine located at Moscow is also in the Big Vein and ships over the Cumberland and Pennsylvania Railroad. It is, all things considered, one of the best mines in the region in which to work.

It adjoins the property of the American Coal Company and is reached by a long incline plane, and also a long tramroad.

The ventilation here has always been good in my time, after we got the system of putting the air-holes out to the surface going.

The coal is extra high and consequently extra dangerous roof; but generally the men, fully appreciating this, have been very careful in their timbering.

MOSCOW-GEORGES CREEK MINING CO.

Moscow Nos. 2 and 3

E. R. Brennan, Superintendent and Foreman.

The Moscow-Georges Creek Coal Company still continues to mine big vein, and Barton Four-Foot at their operations near Barton. These mines are located on the west side of Georges Creek and ship over the Cumberland and Pennsylvania Railroad.

The big vein mined here is in the old Peekhill property and from present indications, they will have many years of work. It is true they will never be able to work a large force of men, because the work of recovering this coal is full of difficulties and it takes pluck and enterprise to push it.

The ventilation is generally fair, there being no great reason why they cannot get a plentiful supply of fresh air at any time by making air-holes out through the surface.

About 425 feet below the big vein they are working the Barton Four-Foot or Bakerstown coal and ship it on the same dump as the big vein. This is the farthest point this coal seam can be successfully drifted for up the creek. The mine, is a drift in character and is very flat, being about the center of the syncline. As a result, they are troubled some with water.

The ventilation here, as stated in my former reports, is not good and some sort of mechanical ventilation is absolutely needed. To depend on natural ventilation here, with the work as flat as it is giving very little chance for change in temperature, is out of the question; and, while very often the mine has but few men working in it, I think this due to its condition.

Moscow No. 1

Moscow No. 1 on the opposite side of Georges Creek has not been working during the year; though there is strong talk of its being started up and being vigorously pushed.

CHAPMAN COAL MINING COMPANY.

Swanton Mines

Edward Clark, Superintendent and Foreman.

The Swanton mines of the Chapman Coal Mining Company are located at Barton and ships over the Cumberland and Pennsylvania railroad. The coal seams mined here are the Tyson and Barton Four-Foot. The Tyson is the more important operaton, the coal being from 5 to 7 feet high and of good quality. They have gotten into line in the coal recovery business, and are recovering much coal that was thought to be worked out. I have seen pillar after pillar of the best kind of coal standing here, and rooms faced up in the solid and why they were stopped it would be very hard for anyone to satisfactorly explain.

The management here are somewhat careless about their roads and drainage, and while there are undoubted difficulties, because of the nearness to the surface of the coal; yet, the proper provisions for drainage are not made.

The ventilation is generally good, though, there is at times carelessness apparent in this respect.

Barton Four Foot

The Barton Four-Foot, in operation here, is like some other places where this important coal seam is being mined. Not enough attention paid to it; just letting it drift. This policy will eventually drift it out of the business. You visit the mine, you find perhaps the ventilation within the requirements of the law; but, in seams of this size and at this stage of its being mined, there should be two or three times the amount required in order to keep it clear of smoke. You find a few men working and they being permitted to blast as often as they please, and no effort being made to make them work under proper restrictions, where if the proper conditions prevailed, they could double their output. I am now speaking from an economic standpoint.

They ship over the same dump as the Tyson. The coal is of good

quality and could be made a very successful operation.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth of Tyson	5,780	30	193
Outlet at air-hole, Tyson	6,170		
Intake from air-hole, Barton Four-foot	3,250	15	217
Outlet at the mouth, Barton Four-foot	4,760		

POTOMAC COAL COMPANY.

POTOMAC MINES NOS. 1, 2, 3 AND 4

Henry Shriver, Superintendent. P. H. Gallagher, Foreman.

This is operating the Barton Four-Foot or Bakerstown coal and ship over the Cumberland & Pennsylvania Railroad. It is situated near Barton and controlled by the second largest shippers in the State, the Black, Sheridan and Wilson Coal Co.

Shis mine is the most extensive operation in the Barton Four-Foot in the State, having four openings.

The haulage is done by mules and with the territory that is developed, it is beyond question that some kind of mechanical haulage would greatly reduce cost of mining.

The mine is generally in good condition as to ventilation and safety.

The drainage question is a source of much trouble here.

In opening these seams, it would look as if it were gone at as an experiment; doubtful of the success. As a result proper provision was not made for drainage and haulage. Roadways were not made wide enough; now they are going over much of this work. Had it been properly done in the first place, the matter would have been settled. They are now and have been for some time, making the required room and the difference is quite noticeable.

The management continue to improve conditions in every way, and they have no trouble in keeping a large force of men when they have work for them. A large fan furnishes ventilation and it is generally good. The following is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	32,120	70	459
Intake to 2 left, No. 1 opening	8,240	4	2,060
Intake to 3 left,	6,100	3	2,033
Outlet of 4 left,	4,500	3	1,500
Outlet of 6 left,	4,100	9	455
Outlet of 7 left,	3,000	7	429
Outlet of 8 left,	2,100	8	262
Outlet of 9 left,	1,640	12	137
Intake to No. 3 opening	6,600	7	943
No reading in No. 4 opening		8	
Outlet at mouth, No. 1 opening	28,800		

THE FROSTBURG COAL CO.

GINSENG MINE

Thomas Mackey, Superintendent, resigned.
James McDonald appointed.

Ginseng mine of the Frostburg Coal Company is like it always has been to a more or less degree. The company will sometimes appear as if they were going to put the mine on a paying basis and then they shut down. There is something radically wrong with this company, either in its management or otherwise.

This mine, as I said before, can be made a paying proposition ; provided some money is spent, and used in the manner in which it would do the most good. The coal is of good quality, a fair height, and reasonably easy of access. It would need some real live coal men to go at it, giving it a general cleaning up and overhauling of everything and apply up-to-date methods. This with the proper financial backing, would make the mine a paying one, instead of what it is today.

It has been idle most of the year.

It is located at Reynolds and ships on the Cumberland & Pennsylvania Railroad.

MORRISON LAND COMPANY.

William Harvey, Contractor.

This operation is in the same seam of coal as the Ginseng mine; namely, the Upper Freeport. It is claimed by some to be too hard to be mined by pick; but, the men here mine it, and I am informed by them, make a very comfortable living. This mine furnishes the fuel that generates the power at the power house of the Cumberland & Westernport Electric Railway at Reynolds and there does not seem to be any cause for complaint as to its efficiency; considering the manner in which its railway is run.

A decided improvement has been made here during the year. A small, high speed fan has been installed and the condition of the mine is immensely improved.

PHOENIX & GEORGES CREEK COAL MINING CO.

PHŒNIX MINE, BIG VEIN
ELKHART, BARTON FOUR FOOT

John Rankin, Superintendent. A. Davidson, Foreman.

The Phoenix mine operating in the big vein is located on the west side of Georges Creek, near Reynolds and ships over the Cumberland

& Pennsylvania Railroad. There is the usual method employed here in going after abandoned coal; by laying tramroads around the hills on both sides of the head of the plane and making openings along these tramroads.

The coal here is like many other places mining this vein of the highest quality; and it is to be hoped that they get much more than seems probable at this writing. The coal is hauled on the tramroads by horses and mules and lowered to the dump by two long planes.

The ventilation is good at all times, it being no trouble to procure a plentiful supply of fresh air.

The Barton Four-foot, working here, is also a very good operation. Some little trouble is experienced with water by the local dips that occur, as in all the coal measures; but all things considered it is among the good operations in this very important coal.

I have noticed some reckless acts by workmen at this mine in handling explosives and I trust the management will make every effort to make careless workmen have some respect for the lives of their co-laborers, if they have none for their own.

The ventilation here is generally good, though the mine will shortly become too extensive for the primitive and out-of-date method now in use. This is an average inspection of the Four-foot.

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth of Barton Four-foot...	7,180	15	479
Outlet of 1st right.....	4,600	5	920
Outlet of 2nd right...	3,620	8	452
Outlet of 3rd right.....	1,940	2	970
Return to the furnace.....	8,120		

CUMBERLAND-GEORGES CREEK COAL CO.

PENN MINE

Thomas S. Harris, Superintendent and Foreman.

This company has been pushing along in a very indifferent manner and will be until they apply the proper methods to their operation. They have one of the best looking propositions in the Barton Four-foot in the State and if they would ventilate it, and make some other needed repairs, they would have no trouble in increasing their output.

I trust that before this report is printed the company will see the error of their ways, and put the needed ventilating apparatus in. As a rule, I am unable to get air readings here.

The general condition of the mine has been considerably improved under the new management, and they hope to be able to impress on

their company the need of still more. The company has a large acreage here, and some day it will be one of the big coal producers in the State.

PIEDMONT & CUMBERLAND COAL CO.

James McDonald, Superintendent.

This is the last time this company will appear in the reports of the Maryland mines; at least until they get other operations.

The Hampshire or Brown's mine they were working here they sold to the Piedmont and Georges Creek Coal Co., and it is now known as Washington No. 4, of that company. In another part of this report it is described under the head of Washington No. 4.

DAVIS COAL & COKE COMPANY.

No. 17, OR BUXTON

O. Tibbets, Superintendent. Robert Grant, Foreman.

The Buxton mine of the Davis Coal & Coke Company is located near Bloomington and while the opening is in Allegany county much of the work done is in Garrett.

They ship on the Western Maryland Railroad and are working the Lower Kittanning or Davis six-foot.

This company have increased their shipments considerably over last year, and it is hoped they will continue to do so for many years to come.

They have started to penetrate a fault that was met with in the main heading, and it seems to be improving. It means much to this community, for there are many people having houses established here and dependent upon Buxton for a means of living.

The mine has been considerably improved during the year by the addition of a new and larger fan on the right side of the mine. This has made a decided betterment of the ventilation.

Roads and drainage have been considerably improved during the year.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan, right side	37,800	144	264
Outlet of first right	8,500	38	224
Inside cut in second right	2,870	22	130
Outlet of Stump and Spangler headings	2,450	22	110
Outlet of Pollock and Ridge heading	5,000	14	357
Intake to 4th left	5,400	8	675
Outlet at the mouth	27,000		
Return to the fan left side	12,640		

List of Executive Mine Officials, Ownership of Coal, Transportation, etc.

ALLEGANY COUNTY

Name of Company	Superintendent's Name and Address	Name of Foreman	Mine	No. of Openings	Coal Seam Being Developed Geological Name	Coal Seam Being Developed Local Name	Where Located	Owner of Land Being Worked	Transportation
McMullen Bros. Coal Co.	D. F. McMullen, Cumberland, Md.	James Barrett	Partridge Run	2	Brookville	Bluebaugh	Barrellsville	Fairweather & Ladew	C. &. P. R. R.
Cumberland Basin Coal Co.	David Williamson, Pomosa, Md.	.....	Stafford & McGlone	2	Clarion Brookville	Parker Bluebaugh	Barrellsville	Cumberland Basin Coal Co	"
Midland Mining Co	W. A. Somerville, Cumberland, Md.	Frank Stohl	Trimble	2	Pittsburg	Big Vein	Morantown	Midland Mining Co	"
Midland Mining Company	W. A. Somerville, Cumberland, Md.	John S. Askey	Enterprise	1	Pittsburg	Big Vein	Midland	Consolidation Coal Co	"
New York Mining Co	Henry Shriver, Mt. Savage, Md.	John Sullivan	Union No. 1	2	Pittsburg	Big Vein	Near Allegany	New York Mining Co	"
New York Mining Co	Henry Shriver, Mt. Savage, Md.	John Sullivan	Union No. 2	3	Pittsburg & Tyson	Big Vein & Tyson	Frostburg	New York Mining Co	"
Union Mining Co	Henry Shriver, Mt. Savage, Md.	James Alden	Union	2	Pittsburg	Big Vein	Borden	Union Mining Co	"
H. & W. A. Hitchins C. Co.	John Malloy, Frostburg, Md.	John Malloy	Borden Mine	2	Pittsburg	Big Vein	Borden	Borden Mining Co	"
Consolidation Coal Co	H. V. Hesse, Frostburg, Md.	W. H. R. Thomas	Ocean No. 1	2	Pittsburg	Big Vein	Ocean	Consolidation Coal Co	"
Consolidation Coal Co	H. V. Hesse, Frostburg, Md.	William Sleeman	Ocean No 3.	3	Pittsburg	Big Vein	Hoffman	Consolidation Coal Co	C. & P. R. R.
Consolidation Coal Co	H. V. Hesse, Frostburg, Md.	James Weston	Ocean No. 3½	2	Pittsburg	Big Vein	Eckhart	Consolidation Coal Co	"
Consolidation Coal Co	H. V. Hesse, Frostburg, Md.	Jonathan Jenkins	Ocean No. 7	3	Upper Sewickley Pittsburg	Tyson Big Vein	Lord Lord	Consolidation Coal Co Consolidation Coal Co	" "
Consolidation Coal Co	H. V. Hesse, Frostburg, Md.	Thomas McFarlane	Ocean No. 8	3	Pittsburg & Tyson	Big Vein	Midland	Consolidation Coal Co	"
Consolidation Coal Co	H. V. Hesse, Frostburg, Md.	P. J. Kenny	Ocean No. 9	3	Upper Sewickley	Tyson	Allegany	Consolidation Coal Co	"
Pied. & Georges Cr. Coal Co.	Martin Condry, Frostburg, Md.	P. H. Brown	Washington No 1	2	Pittsburg	Big Vein	Eckhart	Consolidation Coal Co	"
Pied. & Georges Cr Coal Co.	Phillip Brown, Frostburg, Md.	William Brown	Washington No 2	3	Upper Sewickley	Tyson	Eckhart	Consolidation Coal Company	"
Pied. & Georges Cr Coal Co.	M. P. Fahey, Westernport, Md.	John Fahey	Washington No. 3 & 4	4	Lower Kittanning	Davis six foot	Westernport	Piedmont & Georges Creek Coal Co	"
Barton & Georges Cr V. C C	H. Hitchins, Frostburg, Md.	H. C. Hitchins	Carlos Hill and Slope	3	Pittsburg	Big Vein	Carlos	Consolidation Coal Co	"
Bowery Coal Company	Robert Griffith, Frostburg, Md.	Robert Griffith	Bowery Mine	1	Pittsburg	Big Vein	Midlothian	Borden Mining Co	"
Georges Creek Basin Coal C.			Pine City Mine	2	Brookville	Bluebaugh	Short Gap	Georges Creek Basin Coal Co	"
Wachovia Coal Company	Charles E. Davis, Vale Summit, Md.	Tony Lewis	Montell Mine	1	Lower Kittanning	Davis six foot	Clarysville	Fred Mertens Sons	G. C. & C. R. R.
Georges Cr. Coal & Iron Co.	Robert L. Somerville, Lonaconing, Md	Richard Spear	Engineside and No. 1,	2	Pittsburg	Big Vein	Lonaconing	Georges Creek Coal & Iron Co	C. & P. R. R.
Georges Cr. Coal & Iron Co.	Robert L. Somerville, Lonaconing, Md	Douglas Somerville	No· 16	2	Upper Sewickley	Tyson			
		John M. Boyd	Nos. 3, 9, 12 and 13	5	Pittsburg	Big Vein	Lonaconing and Midland	Georges Creek Coal & Iron Co	"
New Central Coal Co	Duncan Sinclair, Fairmont, W. Va.	William Thompson	Koontz No 1.	3	Pittsburg & Sewkly	Big Vein	Lonaconing	New Central Coal Co	G. C. & C. R. R.
Coromandal Coal Co	Duncan Sinclair, Fairmont, W. Va.	Wm. Thompson	Big Vein Mine	2	Pittsburg	Big Vein	Lonaconing	New Central Coal Co.	"
Maryland Coal Co	Frank E. Brackett, Cumberland, Md.	William Dodds	Appleton Mine	3	Pittsburg & Sewkly	Big Vein & Tyson	Lonaconing	Maryland Coal Company	"
Maryland Coal Co	Frank E. Brackett, Cumberland, Md.	Hubert Worgan	New Detmold	1	Pittsburg	Big Vein	Lonaconing	Maryland Coal Company	"
American Coal Co	J. T. Dobbie, Lonaconing, Md.	Robert Gunning	Jackson	7	Pittsburg & Sewkly	Big Vein & Tyson	Lonaconing	American Coal Company	"
American Coal Co	J. T. Dobbie, Lonaconing, Md.	William Russell	Caledonia	10	Pittsburg & Sewkly	Big Vein & Tyson	Barton	American Coal Company	C. & P. R. R.
Piedmont Mining Oo	J. J. Dobbie, Lonaconing, Md.	C. Bowden	Pekin and Moscow	8	Pittsburg	Big Vein	Pekin	Piedmont Mining Company	"
Moscow Georges C. C. Co.	W. A. Somerville, Cumberland, Md.	E. R. Brennan	Moscow No. 2 and 3	3	Pitts. & Bakerstown	Big Vein, Barton 4ft	Moscow	A. B. Shaw	"
Chapman Coal Mining Co	Edward Clark, Barton, Md.	Edward Clark	Swanton	3	Bakerst. & Sewkly.	Tyson, Barton 4 ft	Barton	Chapman Coal Mining Co	"
Potomac Coal Company	Henry Shriver, Mt. Savage, Md.	P. H. Gallagher	Potomac	4	Bakerstown	Barton 4 ft	Barton	Black Sheridan & Wilson Co	"
Frostburg Coal Company			Ginseng	2	Upper Freeport	Thomas 3 ft	Near Reynolds	Carrie Morrison	"
Morrison Land Company	William Harvey, Frostburg, Md.	.....	Reynolds	1	Upper Freeport	Thomas 3 ft.	Reynolds	Morrison Land Company	Domestic
Phoenix & G. C. C. & M. Co.	John Rankin, Piedmont, W. Va.	A. Davidson	Phoenix and Elkhart	4	Pitts. & Bakerstown	Big Vein, Barton 4ft	Phoenix	Phoenix & Georges Cr C. & M. Co.	C. & P. R. R.
Cumb. Georges C. C. Co.	Thos. S. Harris, Westernport, Md.	Thomas S. Harris	Penn Mine	3	Bakerstown	Barton 4 ft	Near Franklin	Cumberland Georges Cr Coal Co.	"
Davis Coal & Coke Co.	O. Tibbetts, Beryl, W. Va.	Robert Grant	Buxton or No. 17	2	Lower Kittanning	Davis six ft.	Near Bloomington	Western Maryland R. R. Co.	West. Md. R, R.

GARRETT COUNTY

G. C. Pattison Coal Company	Carroll Pattison, Bloomington, Md.	Carroll Pattison	Bloomington	2	Lower Kittanning	Davis six ft	Bloomington	Empire Coal Co	B. & O. R. R.
Munroe Coal Mining Co	G. C. McFarlane, Barnum, W. Va.	H. B. and L. R. Kight	Elk Run Nos. 1 and 3	3	Lower Kittanning	Davis six ft & 4 ft	Barnum	Munroe Coal Mining Company	West. Md. R. R.
Three Forks Coal Co.	D. F. Beckman, Chaffee, W. Va.	J. H. Smith	No. 1 Mine	2	Lower Kittanning	Davis six ft.	Near Chaffee	Beckman Heirs	"
Potomac Valley Coal Co.	S. B. Brydon, Blaine, W. Va.	—— Black	Darwin	2	Upper Freeport	Thomas 3 ft	Blaine	Wilson Heirs	"
Blaine Mining Co	S. B. Brydon, Blaine, W. Va.	Thomas Fleming	Dill No. 2	2	Lower Kittanning	Davis six ft	Dill	Blaine Mining Co.	"
Garrett County C. & M. Co	H. B. Douglas, Dodson, Md.	Martin Abernathy	Dodson No. 1, 2, and 3	4	Upper & Lo'r Kit'g	Davis six ft	Dodson	Garrett County Coal & Mining Co.	"
Upper Potomac Mining Co.	R. H. Hamill, Hubbard, W. Va.	Thomas Robinson	Upper Potomac	2	Lower Kittanning	Davis 6 ft	Upper Potomac	Upper Potomac Mining Company	"
Stoyer Run Coal Company	Thos. Melvin, Stoyer, Md.	Thomas Melvin	Stoyer Run	3	Lower Kittanning	Davis 6 ft	Stoyer	Stoyer Run Coal Co	"
Beechwood Cumb. Coal Co.	Wilbur Shrout, Gormania, W. Va.	Wilbert Shrout	Glade Run	1	Upper Freeport	Thomas 3 ft.	Glade Run		"
Penn. Garrett Coal Co.	Thos. H. Jones, Kendall, Md.	Thomas H. Jones	Mine Nos. 1 and 2	3	Lower Kittanning	Davis 6 ft	Kendall		Confluence & O R

Local Coal Mines

There are quite a number of mines that are mining coal on a small scale for domestic use. Time forbids the going into extensive description. I will begin the practice of just giving a list of those mining coal for home consumption, and the seam of coal in which they work. All the fuel mines reported here are in Allegany county.

The following are the names and where they are working:

A Mr. Barnard is operating a fuel mine at Eckhart. It is in the Big Vein.

Hansel's fuel mine, back of Frostburg has been in operation for a long time. They are also in the big vein, adjoining old Frost mine.

McCullough & Rawlings is another enterprise of this kind in the big vein. They are working in the old Blaen Avon property.

The Frostburg Fuel Company have leased Tyson No. 2 from Consolidation Coal Company and are said to be doing a good business.

John Clise has an operation in the National Mine near Miller, that was worked out by Hitchins Bros., some years ago. He is supplying the most of Midland with coal for domestic use.

J. O. J. Green is in the local fuel business at Westernport, and is operating what was thought to be the Clarion or Parker Coal. He reports sales good and plenty of them.

A Mr. Miller is supplying much of Lonaconing with domestic coal. This is also the big vein.

A Mr. Anderson is working some of the Detmold crop coal. He also supplys part of the Lonaconing trade. It is big vein of high quality.

Garrett County Coal Mines

G. C. PATTISON COAL CO.

Carrell Pattison, Superintendent and Foreman.

The G. C. Pattison Coal Company are operating in the Lower Kittanning or Davis 6 ft.. and in the Bakerstown or Barton Four-foot. The six-foot, they work more extensively than the Four-foot, largely because the difference in height. It is always easier to get labor in the six-foot than in a smaller seam.

The mines are located near Bloomington and load direct on the Baltimore & Ohio Railroad. The condition at the six-foot during the year have been very good, and the company has had a corresponding increase in tonnage.

The ventilation is furnished by a force fan and the old opening of the Brydon Mines serves as an outlet.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	19,760	30	658
Intake to Monkey heading	6,900	14	493
Intake to Lower heading	5,280	8	660
Intake to Stony heading	3,640	6	607
Outlet at Brydon opening	20,570		

The operation in the Barton Four-foot has not been doing very much during the year. There is no good reason why this mine cannot be made a paying proposition. It is about the same as the Barton Four-foot everywhere, it being, to my notion, the most persistent of all coal seams.

The ventilation is only fair; there is hardly ever enough men to bring it under the provision of the mining law.

MONROE COAL MINING COMPANY.

Elk Run Mine, No. 1

G. C. McFarlane, Superintendent. H. B. Kight, Foreman.

Elk Run mine No. 1 is located at Barnum and ships on the Western Maryland Railroad. It is operated by the Monroe Coal Mining

Co., and is in the Lower Kittanning. It may be that there is only one of the Kittannings here present, this company having prospected considerably in their efforts to locate another of the Kittannings but, without result, so far.

This mine is generally in good condition; but it takes careful work to keep it so, for it is a considerable distance under the hill, and the capacity of the present fan is about reached.

The proposed improvements in the haulage, and, incidental in their air-course, mentioned in my last report, has helped matters greatly but the distance between the face working and the fan is steadily increasing; and as a direct result the efficiency of the fan is decreasing.

I know this company will put in what improvements are necessary.

The roads and drainage have been much improved during the year.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	26,800	50	536
Inside cut in 5th right	4,200	7	600
Inside cut in 6th right	4.125	7	589
Inside cut in 7th right	3,500	5	700
Inside cut in 8th right, main heading	3,325	6	554
Outlet of 8th left	2.625	6	437
Outlet of 7th left	2,440	7	348
Outlet of 6th left	3,200	4	800
Outlet of 5th left	2,100	2	1,050
Outlet near the mouth	18,040		

Another outlet at old air shaft.

Elk Run Mine No. 3

L. B. Kight, Foreman.

The Barton Four-foot is directly above No. 1 mine and is reached by an incline plane; shipping over the same dump as No. 1. This coal still retains its uniformity, the mine keeping up its normal output. It is generally in good condition; improvements being made, as a rule, when they are needed. The ventilation is good since the installation of the fan and the pleasure that there is to every one more than compensates for the expense incurred.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	15,400	25	616
Inside cut in third left	2,310	7	330
Inside cut in fourth left	3,300	7	471
Intake to 4th and 5th rights	8,280	6	1,380
Outlet at the mouth	9,285		

Fourth right is part of the outlet as an air hole is out at the back of this heading.

This company have built nine new dwelling-houses on their property on the West Virginia side of the river.

THREE FORKS COAL MINING CO.

THREE FORKS MINE No. 1

D. F. Beckman, Supt. J. H. Smith, Foreman.

Three Forks Coal Mining Company is a new operation in Garrett county, located near Chaffee on the main line of the Western Maryland Railroad. They did not ship any coal during 1906, but commenced shipping January 1907. Since that time and up to May 1907, they shipped about 4,000, a very good showing for a new plant and having the many draw-backs incident to a new operation.

The mine is in the lower Kittanning or Davis 6 ft., and is reached by a tramroad over two miles in length, from the dump to the bottom of an incline plane that leads up to the openings.

The coal is among the best in this section of the State. It is ideally located for opening, and some day when they are able to bring their railroad cars close to the mine, it will be one of the most extensive in Garrett county.

A locomotive hauls the cars from the dump to the bottom of the plane; the grade is rather heavy, being about four and a half per cent.

The company is showing the proper spirit, though they are but a short distance in, a fan is about completed, and it is to be hoped that they may meet with success in their undertaking when their first consideration seems to be a desire to have the best possible conditions in their mine. They are building a large number of dwelling houses, and I am informed, intend to build many more. This place looks to have a bright future.

POTOMAC VALLEY COAL CO.

DARWIN MINE

S. B. Brydon, Superintendent. David Johnson, Foreman.

This mine is in the Upper Freeport or Thomas coal and is located about one mile below Blaine; shipping over the Western Maryland Railroad. It is an extremely hard coal, the hardest coals in the Maryland coal measures.

Considerable improvement has been made here, since this company has taken charge of the property. Two new openings have been made, and a tramroad of 15,000 feet from the head of the plane to the openings. In these openings the best Freeport coal so far developed in the State, is found. There is one matter in this mine that I

want to speak of, and that is, the solid shooting so prevalent here. As has been stated before, the coal is hard, the mine is well up on the hill; it is very dry; and with the incomplete combustion of the large blasts, the dust made from the same cause and the natural dryness of the mine produces a condition that I believe to be highly dangerous. The blasting of the coal out of the solid should not be permitted under any circumstances. If miners cannot make a living by preparing their coal, then they should get more per ton. If companies cannot pay more per ton, then it should stay in the hill until they can; rather than have a disaster such as is happening all about us.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	10,640	30	355
Return to furnace, right side	4,800	14	343
Return to furnace, left side	6,000	8	750

This company say they will intsall a fan in the near future; though that will not eliminate the danger of which I speak.

BLAINE MINING COMPANY.

DILL, No. 2

S. B. Brydon, Superintendent. T. A. Fleming, Foreman.

The Blaine Mining Company is located at Dill about one mile up the river from Blaine, and ships over the Western Maryland Railroad. This mine, as I have stated before, is the best operation in the Lower Kittanning or Davis 6 foot and from many standpoints, the best mine in any seam in the State.

During the year they have been still pushing their heading work, with the end in view in the near future, of a largely increased tonage. I understand they expect to bring the railroad cars up close to the mine and thus do away with the long tramroad and much of the plane that is now in use. In addition to this, they intend installing an electric haulage plant that will be a great economic saving in hauling the coal in the mine. With the improvements completed, it will be no trouble for this operation to bring its tonnage up to 1200 to 1500 tons per day. The coal still maintains its general good qualities and all things considered it comes near being the ideal coal mine.

There are a couple of other outlets on the left side of the mine.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	44,680	60	745
Inside cut in 1st right	6,645	5	1,329
Inside cut in 4th right	16,060	5	3,212
Inside cut in 5th right	8,800	5	1,760
Inside cut in 7th right	5,475	4	1,369
Outlet of 8th right	5,040	6	840
Outlet of 9th right	4,620	7	660
Inside cut in 10th left	1,560	4	390
Outlet of 6th left	3,100	2	1,550
Intake to second left	10,080	13	775
Outlet at the mouth	31,520		

GARRETT COUNTY COAL & MINING COMPANY.

Dodson Nos. 1 and 3

H. B. Douglas, Superintendent. (Resigned about first of year 1907.)
G. C. McFarlane, appointed.
Martin Abernathy, Foreman. (Succeeded by H. B. Kight)

This company have shown a considerable amount of carelessness during the year. This may be in part due to the contemplated change in officials. Whatever it was due to, it should not be permitted to go on. The mine was always within the strict letter of the law, as to ventilation, but, with the amount of blasting that is done, they need to go farther than that. It is so easy to let a property run down and so hard to again get it up to a proper standard, that good mine officials will never allow this to occur. The present management have gone to work with a will, and when another report is issued, I believe there will be a different story to tell.

Dodson is mining the Lower Kittanning or Davis 6 foot.

The ventilation is by the overcast or split system, every heading getting its separate amount of fresh air. This is the ideal system; but it must be given attention.

The hauling is done by stationary engine and tail rope on the main heading, and by horses and mules on the side headings right and left.

An incline plane lowers the coal to the dump, where they ship it on the Western Maryland Railroad.

This is an average inspection during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake from the fan	45,830	80	573
Intake to 4th left	5,400	9	600
Intake to 5th left	5,200	14	371
Intake to 6th left and all above	1,840	16	115
Intake to 7th right	1,200	10	120
Intake to 6th right	2,420	12	202
Intake to 5th right	3,240	9	360
Outlet at the mouth	48,800		

The Upper Kittanning coal is opened here, and was operated for a time, but for some reason was stopped by the former management. This coal at this point looks better than any coal seam in the State, outside of the big vein, and why it is not operated, I cannot see. I have spoken of this coal in a previous report.

UPPER POTOMAC COAL COMPANY.

Upper Potomac Mine.

R. H. Hamill, Superintendent. Thomas Robinson, Foreman.

The Upper Potomac mine of the above named coal company is located at Hubbard on the line of the Western Maryland Railroad. They ship over this great coal carrying road and have increased their output considerable during the year; more than 10,000 tons over the preceeding year.

The coal seam worked is in the Lower Kittanning or Davis Six-foot and is reached by a long incline plane, from the head of which a tramroad leads to the mine. This company is one of the best in Garrett county from every point of view, always trying to work in harmony with their employes, and doing everything they can for their health and safety.

The ventilation, drainage and general condition of the mine is kept upon a high plane, and as a result they are increasing their shipments every year.

This is an average inspection:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	18,640	50	373
Intake to 2nd and 3rd right	3,920	15	261
Inside cut in fourth right	3,310	15	221
Intake to 5th right	1,840	7	263
Intake to 6th right	1,575	3	525
Return to the fan	20,070		

STOYER RUN COAL COMPANY.

Stoyer Mine No. 1.

Thomas Melvin, Superintendent and Foreman.

Stoyer Run Coal Company have for the present abandoned all other openings on their property and gone back to operate their No. 1 opening. The mine is located at Stoyer, a small town in Garrett county, and along the line of the Western Maryland Railroad.

This company have had an up-hill fight at this operation during my term of office. Much of this is due to themselves. They seem to have been honestly trying to improve their property, but instead of

going at it in a business -like way and spending at once the necessary amount of money on new equipment, they have always been investing in second hand stuff, and but very scant with that. It is true they have local difficulties that are not general in this section of the State; but despite the protests of their friends they have continued this penny-wise and pound foolish policy; and when times become hard, they are unable to mine coal on a competitive basis; the result being that they must suspend until the coal market improves. They seem to listen to skates and adventurers instead of to the men whose whole ambition in life is to put the property on a sound, paying basis.

This is the average condition during the year:

Where Measured	Cubic ft. Air per m.	No. of Empl'yes	Air per Man
Intake at the mouth	9,840	20	492
Return to the furnace	10,270		

BEECHWOOD-CUMBERLAND COAL CO.

Wilbert Shrout, Superintendent and Foreman.

The Beechwood-Cumberland Coal Company at their Glade Run Mine have been idle most of the year. This company's property is located at Glade Run, near Gorman and ships over the Western Maryland Railroad. I have made but few visits here during the year; they have been idle most of the time.

The operation is not very extensive, and is ventilated by a small furnace. It appears to neeed some life injected into it.

NETHKINS COAL & COKE CO.

C. C. Chenowith, Superintendent and Foreman.

The mine of the Nethkins Coal & Coke Company located at Bayard, have not started shipments, as yet, for reasons unknown to the writer. I think that a very successful operation could be made here.

The only work done during the year was some coal mined for local consumption in the town of Bayard. The conditions on my visits were always good.

PENN GARRETT COAL CO.

L. N. Van Sant, Superintendent.
Thomas H. Jones, Foreman; and later Superintendent.

This mine is located in the Upper Youghiogheny Basin at Kendall, near Friendsville and is at the extreme western part of the State. The Penn Garrett Coal Company is a newly organized corporation,

and it is to be hoped they will succeed in developing the vast coal resources of this coal basin. The seam they have started to work in is the Lower Kittanning or Davis 6 foot, and they have an opening also in the Split 6.

On the occasion of my visits, the coal there did not show up very good, though that is nothing unusual in this seam and in this basin. It may be that further development will result in the much improved quality of coal from a commercial standpoint.

This company have spent a large amount of money outside in buildings, equipments, dwelling houses and a large boarding house; but not very much in or about the mine.

They ship over the Confluence & Oakland branch of the B. & O. Railroad. It is a hard place to reach, taking the greater part of three days going and coming; no matter how you go at it. I have tried it by driving and by railroad. On my last visit less than ten men were employed. The mine has been idle for some time.

The Fire Clay Mines

UNION MINING COMPANY.

Henry Shriver, Superintendent. James Yantz, Foreman.

The Union Mining Company's Fire Clay mines are located about four miles from the town of Mt. Savage, on Savage Mountain.

The output of this company fell off some during the year, but this was, no doubt, due to the preparation and development of new openings. This fire clay mining is the basis for the maintenance of a great portion of the people of Mt. Savage. There was one fatal accident occurred during the year which is fully described under the head of fatal accidents. It was a very sad and unfortunate accident, and one that may not occur again in one hundred years.

The general condition of the various mines has improved, the most dangerous of their mines, No. 5, being done.

The drainage is still the same problem here it always was and I suppose always will be, no matter what the grade, or how clean you keep your ditches. There is always a soft plastic-like condition. The labor here is mostly from the mountains and some of them are very skillful in timbering. I have seen them retimber places that a coal miner would not think of attempting. This is because they are accus-

tomed to the work and are experts at fore-poling; something comparatively unknown in this region, until recently.

The workmen, while they do not make big wages, work nearly all the time, which in the end of the year brings their wage pretty close to the coal miners.

BIG SAVAGE FIRE BRICK COMPANY.

J. N. Benson, Superintendent. Edward Finzel Foreman.

Big Savage Fire Clay mines is located on Savage Mountain, about two and one half miles from Allegany, where their brick yard is.

This mine has been in very bad shape as to ventilation, but it is all right now, an air-hole having been made from the surface down to the clay, a distance of about eighty feet, mostly through an extremely hard sandstone. They are now producing a fine quality of as good clay as the best of the Mt. Savage products to be found anywhere. They have an especially thick seam of flint clay.

The hauling is done by a stationary engine, located at the mines, and operating with a rope over a plane-tramroad, about two and half miles in length. In the mine mules do the hauling.

They mine what coal is needed about the operation from a coal seam adjacent to the fire clay and send some down to the brick yard at Allegany. This plant means much to the locality around Allegany. The brick yard employing a great many men and boys at reasonably steady work. They ship over the Cumberland & Pennsylvania Railroad.

THE SAVAGE MOUNTAIN FIRE BRICK CO.

C. H. Shuckhart, Superintendent and Foreman.

The Savage Mountain Fire Brick Company still continues to do business in the same way as in former years. The capacity of their brick yard plant at Frostburg is about the same as it has been for a number of years, while at any time they could increase their output at their mines, yet they are now mining all the clay they require. The mine is in the same good condition as stated in my last report and the management seem to realize the economy of keeping it so.

Last year the output fell slightly below the normal, for the reason no doubt, as stated in my last report, that of abandoning old work and beginning new, but this year they have come up to their normal amount. The mine is located in Garrett county, about three miles northwest of Frostburg. From the mine to the dump the clay is hauled over a tramroad of about 1 mile in length, by horses. From the dump it is transported down the National Pike by large wagons to their brick yard, at Bowery street, Frostburg.

Statistics of the Fire Clay Mining Industry in Maryland.

Name of Company	Mine	Employees					Days Worked	Tons Mined	Fatal Accidents	Non-Fatal Accidents
		Miners	Drivers	Inside Laborers	Outside Laborers	Total				
Union Mining Company...	No. 6, 7 and slope	..54..	..10..	..15..	..50..	149	282	..51,895	....1....	None
Savage Mt. Fire Brick Co.	Mine No. 5.....	..11..	...1..	.....	...5..	17	300	..10,000	....None	None
Big Savage Fire Brick Co.	Mine No. 1.....	..12..	...2..	..1..	...4..	19	250	...9,500	....None	None
Totals		77	13	16	59	165	832	71,395	1	

The statistics for fire clay mining during the year show a decrease of nearly 7,000 tons as compared with the preceding year. This decrease is altogether in the Union Mining Co.'s output.

The laborers and drivers are still in excess of the miners; just about in the same proportion as they were last year.

Union Mining Company have done considerable development during the year, and that, no doubt, accounts for much of the decrease in output and increase in laborers.

This industry has great possibilities in this State. The clay can be located anywhere that the coal measures outcrop, and that is pretty good evidence that there is a large area of it. It lies below all the coal seams that have any commercial value in the State.

Previous to my term of office there was no inspection of the clay mining industry in Maryland. During the three inspection years, 1904, 1905 and 1906 the fatal accidents, per thousand employees, were as follows: 1904, 5.35; 1905, .00; 1906, 6.06; average for the three years, 3.80.