ANNUAL REPORT

OF THE

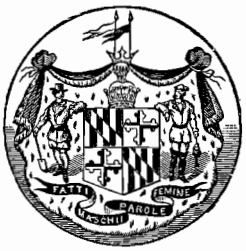
MINING INSPECTOR

OF THE

STATE OF MARYLAND

Under the Supervision of the State Board of Labor and Statistics
CHAS. J. FOX, Chairman

From May 1st, 1918, to May 1st, 1919



TO THE

HON. ALBERT C. RITCHIE

GOVERNOR OF MARYLAND

Compliments of LAWRENCE DUNN
State Mine Inspector

Press of 20th Century Printing Co.
404-406 W. Redwood Street
Baltimore, Md.

LETTER OF TRANSMITTAL.

To His Excellency,
ALBERT C. RITCHIE,
Governor of Maryland :

Sir—I have the honor to submit herewith my First Annual Report as State Mine Inspector for Allegany and Garrett Counties for the period from May 1, 1918, to May 1, 1919, in compliance with the requirements of the Mining Laws of the State of Maryland.

Respectfully yours,

LAWRENCE DUNN,
Mining Inspector.

REPORT OF STATE MINE INSPECTOR

To His Excellency,
Hon. Albert C. Ritchie,
Governor of Maryland.

Sir—The report herewith submitted is for the period from May 1, 1918, to May 1, 1919, being my first annual report, which embraces the Forty-Third Annual Report upon the conditions of the coal mines within the State.

The report from the various mining operations throughout the State show the tonnage to be as follows:

	1918	1919
Pick	3,931,524	3,540,505
Machine	258,712	176,054
Total	4,190,236	3,716,559

The above shows a decrease of 473,677 tons during 1919.

During the year ending May 1, 1919, Allegany County employed 3,235 miners, 288 drivers, 486 inside laborers and 929 outside laborers, making a total of 4,938 men, showing an increase of 96 men compared with that of the previous year.

The production of coal for Allegany County for the year ending May 1, 1919, was 2,723,190 tons, showing a decrease of 593,670 tons from that of 1918. It also shows a production of 841 tons for each miner employed during the year 1919.

GARRETT COUNTY PRODUCTION

During the year ending May 1, 1919, Garrett County employed 884 miners, 71 drivers, 50 inside laborers and 124 outside laborers, making a total of 1,129 men, showing a decrease of 90 men compared with that of the previous year.

The production of coal for Garrett County for the year ending May 1, 1919, was 917,420 tons, showing an increase of 44,044 tons over that of 1918. It also shows a production of 1,037 tons for each miner employed during the year 1919.

FIRE CLAY PRODUCTION

During the year ending May 1, 1919, the clay mines in Allegany County employed 144 miners, 16 drivers, 19 inside laborers and 27 outside laborers, making a total of 206 men, showing an increase of 25 men, compared with that of the previous year.

The production of clay for Allegany County for 1919 was 75,949 tons, showing a decrease of 9,993 tons from that of 1918. It also shows a production of 527 tons of clay for each miner employed during the year 1919.

TONNAGE PER FATALITY

In Allegany County for the year of 1918-19 there was 302,576 tons of coal produced for each fatal accident, while in Garrett County for the same year there was an average of four lives lost for each 229,355 tons of coal produced.

MARYLAND MINE INSPECTORS

PETER CAIN
From May, 1874, to May, 1876

OWEN RIORDAN
From May, 1876, to May, 1880

THOMAS BROWN
From May, 1880, to May, 1884

DENNIS SHERIDAN
From May, 1884, to May, 1886

CHARLES H. HAMMIL
From Sept. 9, 1886, to May, 1888

R. T. BROWNING
From May, 1888, to May, 1892

F. J. McMAHON
From May, 1892, to May, 1896

OTTO HOHING
From May, 1896, to May, 1898

ALEXANDER RANKIN
From May, 1898, to May, 1900

JAMES P. CARROLL
From May, 1900, to May, 1904

THOMAS MURPHY
From May, 1904, to May, 1908

JOHN H. DONAHUE
From May, 1908, to May, 1912

WILLIAM WALTERS
From May, 1912, to May, 1916

JOHN L. CASEY
From May, 1916, to March 20, 1918

JOHN POWERS
From April 1, 1918, to June 1, 1918

FRANK POWERS
From June 1, 1918, to Sept. 1, 1918

LAWRENCE DUNN.

SCALE OF WAGES IN THE GEORGE'S CREEK FIELD

FROM MAY 1, 1880, TO MAY 1, 1919.

	Per Gross Tons Picked
May 1, 1880	$0.65
June 1, 1882	.50
December 1, 1884	.40
March 1, 1887	.50
April 1, 1894	.40
April 1, 1896	.45
April 1, 1900	.55
April 1, 1903	.65
April 6, 1904	.60
April 1, 1910	.63
April 1, 1912	.65½
January 15, 1916	.68
October 16, 1916	.75
March 1, 1917	.85
May 1, 1917	.93½
November 1, 1918	1.05

TABLE OF MINE INSPECTIONS

Date.	Name of Mine.	Address
1918		
Sept. 14	Consolidation Coal Co., No. 3 (Testing Scales)	Hoffman, Md.
" 16	Blaine Mining Co. (Testing Scales)	Potomac Manor, Md.
" 17	Hamill Coal & Coke Co. (Testing Scales)	Kitzmiller, Md.
" 18	Potomac Valley Coal Co., Peerless (Testing Scales)	Kitzmiller, Md.
" 19	Garrett County Coal & Mining Co. (Testing Scales)	Dodson, Md.
" 20	Chaffee Coal Co. (Testing Scales)	Vindex, Md.
" 22	Allegany Coal Co	Westernport, Md.
" 23	Clair Coal Co	Franklin, Md.
" 24	Miller & Green Coal Co	Westernport, Md.
" 25	Moscow & George's Creek Coal Co	Moscow, Md.
" 26	Hoffa Bros. Coal Co	Barton, Md.
" 27	Brydon & Pattison	Barton, Md.
" 29	Frostburg, Md.	Frostburg, Md.
" 30	Cumberland, Md.	Cumberland, Md.
Oct. 1	Chapman Coal Co	Barton, Md.
" 2	Hoffa Bros. Coal Co	Barton, Md.
" 3	Cumberland, Md	Cumberland, Md.
" 4	Hampshire Coal Co.	Franklin, Md.
" 5	Eagan Mining Co.	Midland, Md.
" 7	North Maryland Coal Mining Co	Montell, Md.
" 8	Hoffa Bros. Coal Co	Barton, Md.
" 9	New Central Coal Co	Lonaconing, Md.
" 14	Frostburg, Md.	Frostburg, Md.
" 22	McKee Coal Co	Lord, Md.
" 23	McKee Coal Co	Lord, Md.
" 24	New York Mining Co	Allegany, Md.
" 25	George's Creek Coal Co	Lonaconing, Md.
" 26	Mt. Savage and George's Creek Coal Co	Mt. Savage, Md.
" 28	Peabody & Riley Mines	Lonaconing, Md.
" 29	George's Creek Coal Co., No. 3	Lonaconing, Md.
" 30	Midland Mining Co	Midland, Md.
" 31	George's Creek Coal Co., No. 2	Lonaconing, Md.
1919		
Jan. 2	George's Creek Coal Co	Lonaconing, Md.
" 3	George's Creek Coal Co	Lonaconing, Md.
" 4	George's Creek Coal Co	Lonaconing, Md.
" 6	Consolidation Coal Co., No. 1	Midland, Md.
" 7	George's Creek Coal Co	Lonaconing, Md.
" 8	Maryland Coal Co	Lonaconing, Md.
" 9	Maryland Coal Co	Lonaconing, Md.
" 10	Consolidation Coal Co., No. 1	Midland, Md.
" 11	George's Creek Coal Co	Lonaconing, Md.
" 13	George's Creek Coal Co	Lonaconing, Md.
" 14	Maryland Coal Co	Lonaconing, Md.
" 15	Maryland Coal Co	Lonaconing, Md.
" 16	Eagan Mining Co	Midland, Md.
" 17	Blaine Mining Co.	Potomac Manor, Md.
" 18	Hamill Coal & Coke Co	Kitzmiller, Md.
" 20	Consolidation Coal Co., No. 6	National, Md.
" 21	Consolidation Coal Co., No. 7	National, Md.
" 22	Pine Hill Mine	Gilmore, Md.
" 23	George's Creek Coal Co., No. 9	Midland, Md.
" 24	Consolidation Coal Co., No. 1	Midland, Md.
" 25	In Office	
" 27	Consolidation Coal Co., No. 7	National, Md.
" 28	Sullivan Bros. Coal Co	Carlos, Md.
" 29	Sullivan Bros. Coal Co	Carlos, Md.
" 30	Consolidation Coal Co., No. 8	Midland, Md.
" 31	McKee Coal Co	Lord, Md.
Feb. 1	In Office	
" 2	Weighing Cars	
" 3	Consolidation Coal Co., No. 1	Midland, Md.
" 4	Consolidation Coal Co., No. 1	Midland, Md.
" 5	Consolidation Coal Co., No. 1	Midland, Md.
" 6	Moscow Coal Co.	Moscow, Md.
" 7	Pine Hill Mine	Gilmore, Md.

TABLE OF MINE INSPECTIONS—Concluded.

Date.	Name of Mine.	Address.
Feb. 8	George's Creek Coal Co., No. 9	Midland, Md.
" 10	Sullivan Bros. Coal Co	Eckhart, Md.
" 11	Davis Coal & Coke Co	Kempton, W. Va.
" 13	Clair Coal Co	Franklin, Md.
" 14	Clair Coal Co	Franklin, Md.
" 15	In Office	
" 17	Consolidation Coal Co., No. 4	Eckhart, Md.
" 18	Consolidation Coal Co., No. 12	Shaft, Md.
" 19	Consolidation Coal Co., No. 12	Shaft, Md.
" 20	George's Creek Coal Co	Lonaconing, Md.
" 21	Eagan Mining Co	Midland, Md.
" 24	Consolidation Coal Co., No. 8	Midland, Md.
" 25	Consolidation Coal Co., No. 14	Allegany, Md.
" 26	Consolidation Coal Co., No. 9	Allegany, Md.
" 27	New York Mining Co., No. 1	Allegany, Md.
" 28	Chaffee Coal Co.	Vindex, Md.
Mar. 1	In Office	
" 3	Consolidation Coal Co., No. 9	Allegany, Md.
" 4	Consolidation Coal Co., No. 9	Allegany, Md.
" 5	Piedmont & George's Creek Coal Co	Franklin, Md.
" 6	North Maryland Coal Co	Montell, Md.
" 7	Piedmont & George's Creek Coal Co	Franklin, Md.
" 8	Eagan Mining Co	Midland, Md.
" 10	Consolidation Coal Co., No. 8	Midland, Md.
" 11	Pine Hill Mine	Gilmore, Md.
" 12	George's Creek Coal Co., No. 9	Midland, Md.
" 13	Consolidation Coal Co., No. 1	Midland, Md.
" 14	Midland Mining Co	Midland, Md.
" 15	In Office	
" 18	Consolidation Coal Co., No. 16	Brown Shaft, Md.
" 19	Consolidation Coal Co., No. 16	Brown Shaft, Md.
" 20	New Central Coal Co	Lonaconing, Md.
" 21	New Central Coal Co	Lonaconing, Md.
" 22	Consolidation Coal Co., No. 8	Midland, Md.
" 24	North Maryland Coal Co	Montell, Md.
" 25	New Central Coal Co	Lonaconing, Md.
" 26	Cumberland, Md.	Cumberland, Md.
" 27	Midland Mining Co	Midland, Md.
" 28	Consolidation Coal Co., No. 7	National, Md.
" 29	McKee Coal Co.	Lord, Md.
" 31	Clair Coal Co	Franklin, Md.
Apr. 1	McKee Coal Co.	Lord, Md.
" 2	Midland Mining Co	Midland, Md.
" 3	Consolidation Coal Co., No. 16	Brown Shaft, Md.
" 4	Consolidation Coal Co., No. 15	Vale Summit, Md.
" 5	Blaine Mining Co	Potomac Manor, Md.
" 7	Hamill Coal & Coke Co	Kitzmiller, Md.
" 8	Hoffa Bros. Coal Co., No. 2	Barton, Md.
" 9	Hoffa Bros. Coal Co., No. 1	Barton, Md.
" 10	Hampshire Coal Co	Franklin, Md.
" 11	Piedmont & George's Creek Coal Co., No. 5	Franklin, Md.
" 12	In Office	
" 14	Dunkin Mines	Shaft, Md.
" 15	Consolidation Coal Co., No. 6	Ocean, Md.
" 16	McKee Coal Co	Lord, Md.
" 17	McKee Coal Co	Lord, Md.
" 18	George's Creek Coal Co., No. 9	Midland, Md.
" 19	Consolidation Coal Co., No. 8	Midland, Md.
" 21	Consolidation Coal Co., No. 3	Hoffman, Md.
" 22	Consolidation Coal Co., No. 3	Hoffman, Md.
" 23	North Maryland Coal Co	Montell, Md.
" 24	Consolidation Coal Co., No. 15	Vale Summit, Md.
" 25	Midland Mining Co	Midland, Md.
" 26	Sullivan Bros. Coal Co	Carlos, Md.
" 28	Piedmont & George's Creek Coal Co., No. 2	Eckhart, Md.
" 29	George's Creek Coal Co., No. 1	Lonaconing, Md.
" 30	Consolidation Coal Co., No. 1	Midland, Md.

FATAL ACCIDENTS FROM

Name of Company.	Mine.	Name of Person Injured.	Occupation.
George's Creek Coal Co.	No. 1	Sinclair Bishop	Miner
George's Creek Coal Co.	No. 3	Edward Eilbeck	Miner
McKee Coal Co.	No. 1	David Telford	Miner
Maryland Coal Co.	Waynesburg	John Kroll	Assist. Foreman
Union Clay Mine	No. 6	John McKenzie	Rope Rider
Hamill Coal & Coke Co.		Clarence Liller	Miner
Cumberland Big Vein Coal Co.		Thornton Dowden	Brakeman on Tram Road
Davis Coal & Coke Co.	Kempton	Geo. W. Simmons	Miner
Davis Coal & Coke Co.	Kempton	Joseph Kisner	Miner
Consolidation Coal Co.	No. 4	Robert H. Himmelwright	Miner
Consolidation Coal Co.	No. 3	Wm. Pratten	Miner
Chaffee Coal Co.		John Stewart	Brakeman
New York Mining Co.	Union No. 2	Jonas Skidmore	Miner
New York Mining Co.	Union No. 1	Antonio Ruffo	Miner

MAY 1, 1918, TO MAY 1, 1919

Married or Single	Age	Family	Nationality	Residence	Cause of Accident.
Widower	56	1	American	Lonaconing, Md.	Fall of rock.
Married	22	1	American	Lonaconing, Md.	Fall of rock.
Married	31	2	American	Lord, Md.	Fall of roof coal.
Married	47	5	American	Lonaconing, Md.	Explosion of dynamite.
			American	McKenzie, Md.	
Single	18		American	Kitzmiller, Md.	Fell beneath cars.
			American	Eckhart, Md.	
Married		3			
	50		American	Kempton, W. Va.	
	51		American	Kempton, W. Va.	
Married	45	4	American	Eckhart, Md.	Caught by fall of top coal.
Married	61		American	Frostburg, Md.	Fell off car, striking head.
Married	23		American	Vindex, Md.	Thrown under loaded trip.
Married	33	2	American	Frostburg, Md.	Fall of top coal and rock.
Single	19		Italian	Frostburg, Md.	

FATAL ACCIDENTS

On February 19, 1919, Sinclair Bishop, a miner, residing at Lonaconing, Md., and employed by the George's Creek Coal Co., No. 1, was killed by fall of rock at face of place. The deceased lived eighteen hours after accident occurred.

Time of Accident—10 A. M.
Time of Inspection—1:25 P. M. February 20, 1919.
Nationality—American. Married. Children 1.
At time of inspection I was accompanied by Nathaniel Somerville, superintendent.

On January 13, 1919, Mr. Edward Eilbeck, of Lonaconing, Md., employed as miner by the George's Creek Coal Company, Tyson Mine, No. 3, was instantly killed by a fall of rock. The rock was 5 feet wide, 15 inches thick and 8 feet long.

Time of Accident—8:15 A. M.
Time of Inspection—10:30 A. M., accompanied by Nathaniel Somerville, superintendent.
Nationality—American. Age 22 years. Married. Children 1.

On October 22, 1918, David Telford, of Lord, Md., employed by the McKee Coal Co., was instantly killed, by fall of roof coal, while working at face of place. At the time of accident he was working with Dan Cullen. The top coal was 2 feet thick, 8 feet long and 4 feet wide.

Time of Accident—10:30 A. M.
Time of Inspection—1:40 P. M., accompanied by James Jenkins, superintendent, and Robert Shaw, foreman.
Nationality—American. Married. Children 2.

On January 9, 1919, Mr. John Kroll, assistant mine foreman, at Waynesburg Mine, of the Maryland Coal Co., while assorting dynamite for the following day's work, in some way caused an explosion which killed him instantly.

Time of Accident—2:30 P. M.
Time of Inspection—9:30 A. M. January 10, 1919, accompanied by John Doddie, superintendent.
Nationality—American. Married. Children 5.

On Friday, December 13, 1919, John McKenzie, rope rider on plane, employed by the Union Clay Mine No. 6, was standing on main heading waiting to give signal to hoistman to stop the trip, when car jumped on switch, knocked out ring bar, which let down rock, that struck Mr. McKenzie and killed him instantly.

Time of Accident—2:30 P. M.
Time of Inspection—9:40 A. M. December 14, 1918, accompanied by James Alden and Joe Finzel, mine foremen.
Nationality—American.

On December 6, 1918, Clarence Liller was instantly killed while in the employ of Hamill Coal & Coke Co., Kitzmiller Md., Garrett County. The deceased was working at right hand side of place when rock and dirt gave way, hitting him on head and shoulders. At the time of accident he was working with W. H. Metcalf and James Burton.

Time of Accident—8:15 A. M.
Time of Inspection—10 A. M. December 7, 1918, accompanied by W. D. Walker, superintendent.
Nationality—American. Single. Age 18 years.

On December 20, 1918, Thornton Dowden, employed by the Cumberland Big Vein Coal Co. as brakeman on tram road, while stepping from empty car to engine fell under trip of empty cars. He was killed instantly.

Time of Accident—10:30 A. M.
Time of Inspection—1:30 P. M., accompanied by Mr. Kreitzburg and Charles Brunner, engineer.
Nationality—American. Married. Children 3.

On June 10, 1918, Robert H. Himmelwright, employed by the Consolidation Coal Company as a miner, was caught by a fall of roof coal. He was taken to the hospital, where he died. Mr. Himmelwright was married and leaves a wife and family.

The deceased was 45 years old. He resided at Eckhart, Md.

On April 12, 1919, Mr. Wm. Pratton, employed by the Consolidation Coal Company, while standing on top of a car, fell striking his head, which caused his death in a few days.

Mr. Pratton was married and leaves a wife but no children. The deceased was 61 years old and resided at Frostburg, Md.

On June 24, 1918, Mr. John Stewart, of Vindex, employed as brakeman by the Chaffee Coal Co., was fatally injured while riding the front end of the trip. With no means of control while hitching pin brake, eighteen loaded cars ran away. It is supposed that his light went out, and when he jumped he was thrown under the trip and rolled along, breaking one limb and otherwise being severely injured.

Time of Accident—8:30 A. M. June 24, 1918.
Time of Death—3:30 P. M. June 24, 1918.
Time of Inspection—11:30 A. M. July 3, 1918, accompanied by Mine Foreman James Stewart.
Nationality—American. Age, 23 years.
The deceased was married, but left no children.

On July 9, 1918, Jonas Skidmore, employed by the New York Mining Co., in Union Mine No. 2, as a miner was almost instantly killed by a fall of roof coal, while in the act of putting up breakers. Mr. Skidmore had just finished setting a prop when a king bar swung out catching him and burying him beneath tons of top coal and rock.

For seven hours a force of men worked diligently before they uncovered the unfortunate man. Mr. Skidmore was working with William Carter and had finished their shift and were about to leave the place when the accident happened.

Time of Accident—12:00 Noon July 9, 1918.
Time of Death—12:00 Noon July 9, 1918.
Time of Inspection—3:30 P. M. July 9, 1918, accompanied by General Manager James Aldon.
Nationality—American. Age 33 years.
The deceased was married and leaves a widow and two children.

On July 19, 1918, Antonio Ruffo, Jr., employed by the New York Mining Co., in Mine No. 1, was fatally hurt while breaking a place off Definbaugh Heading. He was working with Conrad Heberline when the accident occurred. He was removed to the Miners' Hospital, where he died at 3:00 P. M.

Time of Accident—11:30 A. M. July 19, 1918.
Time of Death—3:00 P. M. July 19, 1918.
Time of Inspection—7:00 A. M. July 20, 1918, accompanied by Superintendent Finzel and Mine Foreman Tipping.
Nationality—Italian. Age 19 years.

NON-FATAL ACCIDENTS DURING THE YEAR 1918-1919 IN ALLEGANY COUNTY.

WEST VIRGINIA PULP & PAPER COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Joseph Grey, Sr.	American	Westernport, Md.	Fall of coal, hit head and body, causing bruises and lacerations.
Geo. Fisher	American	Westernport, Md.	Fall of rock, hit foot, causing injury to ankle.
R. I. Swadley	American	Piedmont, W. Va.	While dumping coal, fell through trestle, injuring hip and back.

CHAPMAN COAL MINING COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
William Donald	American	Lonaconing, Md.	Stepped in way of loaded trip, causing ankle to be bruised and lacerated.

MARYLAND COAL COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Edward Gardner		Lonaconing, Md.	Caught by rock fall, foot injured.
Cornelius Grindle		Lonaconing, Md.	Car run over foot, right foot bruised.
Patrick McDonough		Lonaconing, Md.	Tripped and fell, right knee and index finger cut.
Eilbeck Moses		Lonaconing, Md.	Caught by rock fall, great toe and right foot injured.
William Broderick		Lonaconing, Md.	Squeezed between car and rib, wrist and back injured.
Harrison Barnes		Lonaconing, Md.	Fell from trip, back and foot bruised and sprained.
Edward McCormack, Sr.		Lonaconing, Md.	Was timbering and fell, right side injured.
William Peebles		Lonaconing, Md.	Hand caught in rock car, thumb injured.
Hugh Johnson		Lonaconing, Md.	End gate of car fell on hand, hand bruised.
David Darnley		Lonaconing, Md.	Rock fall, right hand bruised.
C. B. A. Hardegan		Lonaconing, Md.	Fell getting off trip, foot injured.
John T. Hardegan		Lonaconing, Md.	Came in contact with high tension line, burned.

GEORGE'S CREEK COAL COMPANY, INC.

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Arch Nichols	American	Lonaconing, Md.	Fell from car, breaking little finger on left hand.
Alfred Kiddy	American	Lonaconing, Md.	Fall of rock, cutting right thigh.
John Patton	American	Lonaconing, Md.	Cross bar fell, breaking big toe.
Walter Blubaugh	American	Lonaconing, Md.	While pushing car, wrenched back.
Arch Green	American	Gilmore, Md.	Fall of rock, mashing thumb on left hand.
Wm. H. Mills	American	Lonaconing, Md.	Fall of rock, breaking little finger on left hand.
John Peebles	American	Lonaconing, Md.	Squeezed between trap door and car, wrenched back.
John Scott	American	Lonaconing, Md.	Fall of top coal, bruised leg and back.
Martin Eichhorn	American	Lonaconing, Md.	Rock fell on foot, mashing two toes.
Harry Lease	American	Lonaconing, Md.	Fall of rock, bruised shoulder and arm.
Hugh Watson	American	Lonaconing, Md.	Cut left foot on steel rail.

SULLIVAN BROTHERS COAL COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
John Stewart	American		Fall of top coal, back injured.
John Brimlow	American		Fall of top coal, back injured and generally bruised.
William Grimes	American		Fell while carrying rail, injured back.
George Canning	American		Fall of top coal, injured head and back.
Vernon Winner	American		Loaded car jumped track, injured head.

PIEDMONT & GEORGE'S CREEK COAL COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Nick LaSette	Italian.	Piedmont, W. Va.	Fall of rock, thumb of right hand mashed.
John Martin	American	Pekin, Md.	Hips and body squeezed between roof and car.
Carl Jonoska	Austrian.	Westernport, Md.	Back bruised and ribs cracked.
Herbert Mayhew	American	Westernport, Md.	Caught between car and roof, injured head.
Thomas Bobo	American	Westernport, Md.	Bone in right hand broken and wrist cut.
David Lauder, Jr.	American	Lonaconing, Md.	Foot badly bruised.
Arthur Poland	American	Westernport, Md.	Arm squeezed between car and roof.
George Lauder	American	Lonaconing, Md.	Finger mashed when caught between rail and wheel of motor.

NEW CENTRAL COAL COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Wilson Bradley	American	Lonaconing, Md.	Fall of roof, thigh and pelvic bone fractured, also cut about face.

CHAPMAN COAL MINING COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Wm. Logsdon	American	Barton, Md.	Injured at Tippie. Car striking man in breast as it came back after being dumped.

CONSOLIDATION COAL COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
John F. Hughes	American	Ocean, Md.	Loaded prop truck jumped track, squeezed across hips.
Daniel Bevan	American	Frostburg, Md.	Rib fell on him, spine hurt.
Thos. S. Alexander	American	Gilmore, Md.	Horse squeezed him against rib, three ribs fractured.
R. L. Scott	American	Ocean, Md.	Caught on instep by fall, instep bruised.
Peter Fisher	American	Lonaconing, Md.	Foot caught between motor and car. Foot bruised.
Isaac Seggie	American	Lonaconing, Md.	Slipped on lump of coal. Sprained back and kidneys.
Andrew Stevenson	American	Lonaconing, Md.	Caught by fall. Bone in foot cracked.
Martin Nolan	American	Lonaconing, Md.	Piece of coal hit him in the face. Face badly cut.
Joseph Eberly	American	Midland, Md.	Axe slipped off handle. Arm cut.
Henry Glime	American	Frostburg, Md.	Struck on leg by piece of coal. Leg bruised.
Robert Loar	American	Midland, Md.	Caught by fall of rib. Body badly bruised.
Charles Miller	American	Frostburg, Md.	Caught by fall of breast. Bruised about shoulders.
Patrick Nolan	American	Lonaconing, Md.	Car jumped track and caught him against prop. Calf of leg bruised.
Wm. Eisentrout	American	Eckhart, Md.	Moving generator with pipe. Pipe slipped and cut his hand.
Edwin Griffith	American	Hoffman, Md.	Caught by fall. Knee bruised.
Henry Ort	American	Frostburg, Md.	Axe slipped while making wedge. Foot cut.

CONSOLIDATION COAL COMPANY—Continued.

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Frank Closterman	American	Eckhart, Md.	Struck on head by lump of coal. Cut on head.
Bryan Shannon	American	Frostburg, Md.	Axe slipped and cut his thumb.
Wm. Laughney	American	Frostburg, Md.	Caught by fall. Right leg bruised.
John Warnick	American	Frostburg, Md.	Bar fell and struck him on the thumb.
John Eisentrout	American	Eckhart, Md.	Caught by fall of rib. Bad cut on head.
Geo. Eisentrout	American	Eckhart, Md.	Caught by fall of rib. Back and chest bruised.
Le Roy Himmelwright	American	Eckhart, Md.	Pick struck him on foot. Instep cut.
James Nelson	American	Frostburg, Md.	Caught by fall of breast. Right foot bruised.
Benj. Robertson	American	Shaft, Md.	Caught by fall of rock. Legs bruised.
John M. Kerr	American	Frostburg, Md.	Fall caught him on thumb. Thumb mashed.
Chas. E. Harbel	American	Frostburg, Md.	Caught between car and prop. Right hand lacerated.
Lloyd H. Wade	American	Eckhart, Md.	Slipped while putting truck on track. Ankle bruised.
John Wright	American	Frostburg, Md.	Slipped off brake and fell. Both legs bruised.
Harry Hall	American	Frostburg, Md.	Struck in the eye. Optic nerve injured.
John Beach	American	Frostburg, Md.	Windless struck him on wrist. Muscles bruised.
Herbert Gunter	American	Frostburg, Md.	Caught by fall. Right foot bruised.
H. B. Martin	American	Frostburg, Md.	Hot water splashed on his arm. Arm scalded.
James Fatkin	American	Frostburg, Md.	Caught by fall of coal. Left leg bruised.
Peter Brady	American	Frostburg, Md.	Caught by fall. Collar bone broken.
Evan Evans	American	Frostburg, Md.	Spreader chain caught him against car. Ligaments in ankle torn loose.
Andrew Nelson	American	Frostburg, Md.	Caught finger in end gate. Finger mashed.
Wm. Serifarth		Eckhart, Md.	Cut his thumb while making wedge.
Morris Plunkett		Eckhart, Md.	Finger caught between bar and roof. Finger mashed.
Harry H. Snyder	American	Frostburg, Md.	Caught by fall. Right arm cut.
Robert Lee	American	Eckhart, Md.	Slipped on piece of coal. Instep bruised.
Robert Willison	American	Eckhart, Md.	Caught by fall of roof. Hip bruised.
Robert Gordon	American	Frostburg, Md.	Struck on knee by iron clamp. Knee bruised.
Robert Hawkins	American	Lord, Md.	Caught by fall. Leg bruised.
Forrest Dawson	American	National, Md.	Caught by fall. Ankle sprained.
Edward Evans	American	National, Md.	Toe caught in tipple. Toe mashed.
Forrest Dawson	American	National, Md.	Car ran over his instead. Instep bruised.
Mike Ryan	American	Lord, Md.	Struck his knee on a rock. Knee bruised.
Harry E. Williams		Frostburg, Md.	Hand caught in fan. Finger amputated.
Forrest Dawson	American	National, Md.	Leg caught between cars. Ankle bruised.
John Graham	American	Lord, Md.	Wore blister on hand. Hand became festered.
Crawford Truly	American	National, Md.	Ran into loaded car. Leg cut and bruised.
Urias Rowe	American	Frostburg, Md.	Leg caught between bumpers. Leg cut and bruised.
Elijah McKenzie	American	National, Md.	Caught between car and prop. Side bruised.
Charles Weber	American	Lonaconing, Md.	Fell against car. Ribs brused.
Thos. Leipsic		Lord, Md.	Pick ran in his foot. Foot cut and bruised.
Joe Zavodney		Lord, Md.	Struck foot with axe. Foot cut.
Andy Shinshak		Lord, Md.	Finger caught in brake. Finger broken.

CONSOLIDATION COAL COMPANY—Continued.

Name.	Nationality.	Residence.	Cause and Nature of Accident.
James Wilson	American	Lord, Md.	Caught between car and prop. Left leg bruised.
Henry Schell	American	National, Md.	Cars ran over his foot. Toes badly bruised.
Arch Hott		Lord, Md.	Hammer head flew off handle. Hand bruised.
Arch Hott		Lord, Md.	Fell on a nail. Ran nail in his knee.
Anthony Clupp	American	Midland, Md.	Hand caught between roof and car. Third finger broken.
John M. Bryson	American	Midland, Md.	Lifting lump of coal caused aggravation of hernia.
Patrick Creegan	American	Midland, Md.	Caught between car and prop. Knee cap bruised.
Ed. M. Folk	American	Frostburg, Md.	Caught by fall. Back and hip bruised.
Clarence Lewis	American	Frostburg, Md.	Caught by fall. Body bruised.
Elmer Rice	American	Zihlman, Md.	Caught by fall. Leg broken and four ribs cracked.
Andrew Boyd	American	Frostburg, Md.	Caught by fall. Body bruised and head cut.
Frank Miller	American	Frostburg, Md.	Finger caught between bumpers. Finger mashed.
John Dickey	American	Zihlman, Md.	Ran into three cars. Left hand and hips bruised.
Alvin Hart	American	Frostburg, Md.	Slipped off platform. Elbow fractured.
John T. Hart	American	Frostburg, Md.	Caught finger while lifting car on track.
Clarence Lashbaugh	American	Eckhart, Md.	Car jumped track and knocked him down. Eight empty cars ran over his legs. Both legs badly bruised.
Cloyd Donaldson	American	Zihlman, Md.	Lump of coal fell on his finger. Finger mashed.
Pete Custon	American	Frostburg, Md.	Lifting car on track with rail. Car slipped on rail and caught his face. Face badly cut.
Jos. Passerella		Frostburg, Md.	Fell while setting brake. Bad cut on right hand.
Pat Tighe		Zihlman, Md.	Lifhting a car and strained his side.
Wm. T. Pape		Eckhart, Md.	Caught by fall of slate. Two bones broken in right foot.
Elwood Harden	American	Zihlman, Md.	Foot caught between car and tie. Toes mashed.
Alvin Snyder	American	Frostburg, Md.	Lump caught his finger against car. Finger mashed.
Robert Bean	American	Frostburg, Md.	Caught his finger while putting sprag in car. Finger badly bruised.
George Kirby	American	Eckhart, Md.	Caught by fall of rock. Side and back injured.
Jas. E. Hughes	American	Eckhart, Md.	Caught finger between car and prop. Finger mashed.
Frank Posiuel	American	Eckhart, Md.	Caught by fall. Side and back injured.
Jas. M. Athey	American	Frostburg, Md.	Finger caught between car and prop. Two fingers mashed.
Geo. Plummer	American	Shaft, Md.	Splitting wood with a bar. Bar went through the wood and struck his foot. Foot badly cut.
John Ware	American	Frostburg, Md.	Fell and struck knee on piece of slate. Knee cut.
John F. Comer	American	Frostburg, Md.	Axe handle caught on trousers. Causing him to cut his thumb.
Martin Zavilaski		Eckhart, Md.	Struck by motor. Foot sprained and ankle cut.
Arthur Hughes	American	Eckhart, Md.	Caught by fall. Ankle broken and back bruised.
Jas. Momone		Frostburg, Md.	Caught by fall. Back bruised.
Tadole Crismo		Frostburg, Md.	Finger caught between car and prop. Finger cut and bruised.
Jas. P. Lewis	American	Frostburg, Md.	Fell and sprained his thumb.
Anthony Ritchie	American	Frostburg, Md.	Heel caught between car and motor. Right foot bruised.
Thos. Nelson, Jr.	American	Frostburg, Md.	Struck by piece of rock. Hand bruised and head cut.
Thos. Nelson, Sr.	American	Frostburg, Md.	Struck by piece of rock. Back and head bruised.
Thos. Nelson, Jr.	American	Frostburg, Md.	Lump of coal caught his finger against car. Finger mashed.

CONSOLIDATION COAL COMPANY—Continued.

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Wm. Fisher, Jr.	American	Frostburg, Md.	Caught between car and prop. Left arm bruised and cut.
Samuel Morgan	American	Frostburg, Md.	Strained his back lifting car on track.
John Keiling	American	Frostburg, Md.	Caught by fall. Ribs and hips bruised.
Joseph Brown	American	Frostburg, Md.	Caught by fall. Back sprained and bruised.
Leslie Hendley	American	Frostburg, Md.	Dragged by frightened horse. Body bruised.
Robert Brown	American	Frostburg, Md.	Struck by piece of coal. Hand bruised and cut.
J. M. Brode	American	Frostburg, Md.	Struck by piece of coal. Right side bruised.
George Griffith	American	Frostburg, Md.	Fell over a barrel. Head badly bruised.
Ely Phillips	American	Frostburg, Md.	Struck by lump of coal. Left foot bruised.
Wm. Casteel	American	Frostburg, Md.	Struck by piece of coal. Foot bruised.
Robert Conner	American	Midlothian, Md.	Caught by fall of rib. Head badly bruised.
Walter E. Wade	American	Frostburg, Md.	Caught by fall of breast. Ankle bruised.
F. G. Metzger	American	Frostburg, Md.	Car jumped track and caught his foot. Three bones broken.
Andy Boyd	American	Frostburg, Md.	Piece of timber fell on his legs. Both legs bruised.
Chas. Seigmyer	American	Borden, Md.	Ran splinter in finger. Abscessed finger.
Robert Lace	American	Frostburg, Md.	Log fell on his leg. Leg broken.
Chas. G. Jeffries	American	Frostburg, Md.	Finger caught while loading iron. End of finger mashed.
John H. Kroll	American	Gilmore, Md.	Rock rolled off drag and bruised his left hand.
Wm. Polania, Jr.		Midland, Md.	Caught by fall of rock. Face cut and back bruised.

NON-FATAL ACCIDENTS DURING THE YEAR 1918-19 IN GARRETT COUNTY.

DAVIS COAL & COKE COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Earl Ferguson	American		In the act of stepping on motor. Foot slipped under wheel.
George Bullock	Austrain		While replacing motor on track blocking slipped. Injured thumb.
J. S. Ketterman	American		Caught finger between cars while coupling.
A. G. James	American		Caught hand under motor while adjusting sand pipe.
Ed. Reel	American		Piece of slate fell and crushed foot.
Thos. Day	American		Fell and ran pick in arm.
W. S. Stevenson	American		Caught hand while making coupling.
Earl Ferguson	American		Laying top on moving motor, hand hold struck rib, flew back and struck him in the mouth.
F. L. Tephabaugh	American		Steppng off motor, foot slipped under wheel, wheel passing over toes.
Mike Demeter	Hungarian		Slate fell from roof hitting him on head.
Dan Kotolene	Anstrian		Couplng cars to motor when it started and caught his leg.
Walter Stevenson	American		In act of stepping on motor, missed step.
Edward Custer	American		Whle pushing trip, ran into another, caught between.
Nick Tychech	Russian		Loading rock and piece fell on hand.
P. B. Pennington	American		Cable of motor burned, burning left arm.
Tony Thompson	American		Caught foot between bumpers of car.
Irvin Nine	American		Struck by car.
Mike Boyachek	Austrian		Fall of coal, injured leg.
Benton Lewis	American		Fall of coal, struck back and shoulders.
George Bennet	American		Fell while attempting to run past trip, catching arm.
Joseph Rushton	American		Hauling wire, crushed by motor.
Earnest Hess	American		In the act of stepping on motor, foot slipped, motor catching left foot.
Lewis Eisler	American		Caught while trying to set brake when cars jumped track.
A. V. Heckert	American		While setting brake, caught arm between roof and car.
Martin Hendrix	Russian		Fall of coal, struck on back and right hand.
Snowden Roy	American		Coal fell catching foot.
T. J. Groves	American		Caught leg between pile of coal and car.
Lewis Eisler	American		Attempted to catch motor, fell, motor ran over foot.
Joe Pabst	American		Piece of coal fell, injuring right ankle.
C. H. Simpson	Russian		Coal fell on leg.
Wm. Stevenson	American		Loaded car ran over left foot when clothing caught on car.

BLAINE MINING COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Lou Sarver	American	Potomac Manor, W. Va.	Fall of top coal, fractured left leg between knee and ankle
John Bshop	American	Kitzmiller, Md.	Right leg caught between bumper of car and tie, breaking leg.
Nick Pavculo	Italian	Garrett County	Fall of top coal, struck finger.
Phlip Knows	Italian	Kitzmiller, Md.	Dynamite rock falling, struck him on back.
Joe Provich	Polish	Potomac Manor, W. Va.	Piece of top coal fell, fracturing left leg.

GARRETT COUNTY COAL & MINING COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
A. G. Farlo			Sprained ankle.
Dan Sweeney			Rupture.
A. G. Farlo			Lacerated hand.
John Tersch			Sprained back.
Thos. Kucheon			Loss of both eyes.
Mike Sublish			Squeezed through hips.
Glas Modessi			Squeezed through hips.
Mike Sunday			Foot injured.
John Mihilin			Leg broken.
Albert Nine			Hand lacerated.
H. A. Warnick			Body injured.

TROUT COAL COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Chas. Stacks	American	Vindex, Md.	While making cartridges, powder flash exploded, burned about face and arms.

BRAILER MINING COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
William Theorig	American	Mt. Savage, Md.	While bringing loads out heading another trip ran into him. Two lacerations in calf muscles, each one inch long.
Earl Walsh	American	Mt. Savage, Md.	Kicked my mule, sprained and bruised knee.
John Carter	American	Mt. Savage, Md.	Setting prop, cut thumb with axe.
Ralph Cook	American	Mt. Savage, Md.	Fall of rock, sprained right knee.
Earl Poorbaugh	American	Mt. Savage, Md.	Loaded mine car ran away, struck him, rupturing calf muscles of right leg.

NON-FATAL ACCIDENTS DURING THE YEAR 1918-19, IN FIRE CLAY MINES.

BIG SAVAGE FIRE BRICK COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Charles Williams	American	Garrett County, Md.	Dislocation of left thumb, right wrist sprained and laceration of left eye.

SAVAGE MOUNTAIN FIRE BRICK COMPANY

Name.	Nationality.	Residence.	Cause and Nature of Accident.
Gladstone Larue	American	Frostburg, Md.	Carrying props and fell, catching hand under prop, two fingers bruised.
Oscar McKenzie	American	Frostburg, Md.	Lump of clay fell on foot, large toe on right foot bruised.
Robert Rizer	American	Frostburg, Md.	Struck by piece of rock, hand and leg bruised.
Arch Burdock	American	Frostburg, Md.	Struck by piece of clay, bruising shoulder, cut head.
George Conner	American	Frostburg, Md.	Running loaded cars, lost control, cars jumping track, throwing him between cars and rib, both legs badly bruised.
Daniel E. Price	American	Frostburg, Md.	Empty car ran over end of road, striking him on foot, bruising same.
Roy Crowe	American	Frostburg, Md.	Loading car, piece of clay fell from roof, striking foot, bruising same.
James Winebrenner	American	Frostburg, Md.	Loading props on car, slipped, throwing weight of props on hand, spraining same.

NAMES OF GENERAL MANAGERS, SUPERINTENDENTS

Name of Company.	Mine	General Manager
Consolidation Coal Co.	No. 1	G. M. Gillette
Consolidation Coal Co.	No. 3	G. M. Gillette
Consolidation Coal Co.	No. 4	G. M. Gillette
Consolidation Coal Co.	No. 7	G. M. Gillette
Consolidation Coal Co.	No. 8	G. M. Gillette
Consolidation Coal Co.	No. 12	G. M. Gillette
Consolidation Coal Co.	No. 13	G. M. Gillette
Consolidation Coal Co.	No. 14	G. M. Gillette
Consolidation Coal Co.	No. 15	G. M. Gillette
Consolidation Coal Co.	No. 16	G. M. Gillette
Consolidation Coal Co.	No. 6	G. M. Gillette
Consolidation Coal Co.	No. 9	G. M. Gillette
Consolidation Coal Co.	No. 10	G. M. Gillette
Consolidation Coal Co.	No. 11	G. M. Gillette
Phoneix & George's Creek C. M. Co.	Elkhart	John L. Casey
Cumberland Big Vein Coal Co.	Conway	L. Lee Lichtenstein
Caledonia Coal Co.	No. 1-2	Richard Brydon
Caledonia Coal Co.	Tyson	Richard Brydon
Caledonia Coal Co.	Big Vein	Richard Brydon
The George's Creek C. M. Co.		John S. Hart
Midlothian Coal Co.	Big Vein	William Walters
Midlothian Coal Co.	Tyson	William Walters
Miller & Green Coal Co.	No. 1	J. O. J. Greene
Miller & Green Coal Co.	No. 2	J. O. J. Greene
Westernport Coal Co.	No. 1	Thos. M. Daily
Clair Coal Co.	Penn Mine	V. H. Burtner
New York Mining Co.	Union No. 1	S. J. Alden
New York Mining Co.	Union No. 1	S. J. Alden
New York Mining Co.	Union No. 2	S. J. Alden
Mt. Savage & George's Creek Coal Co.	No. 1	C. Roberts
George's Creek-Parker Coal Co.	Parker	Frank C. Myers
McKee Coal Co.	No. 1	James Jenkins
McKee Coal Co.	No. 2	James Jenkins
North Maryland Coal Mining Co.		T. Richardson
W. E. G. Hitchin	No. 1-2	W. E. G. Hitchin
C. & W. Electric Railway	Reynolds	Robert Harvey
West Virginia Pulp & Paper Co.	Devon	W. E. Brown
Chapman Coal Mining Co.	Swanton	John D. Frenzel
The Green Coal Mining Co.	Moscow No. 1	R. L. Green
Maryland Coal Co.	Kingsland	Elkins Read
Allegany Coal Co.	Tacoma	E. J. Roberts
Hoffa Bros. Coal Co.	Potomac	William Hyde, Sr.
Hoffa Bros. Coal Co.	Moscow	William Hyde, Sr.
George's Creek Coal Co.	No. 1	W. F. Coale
George's Creek Coal Co.	No. 2	W. F. Coale
George's Creek Coal Co.	No. 9	W. F. Coale
George's Creek Coal Co.	No. 1	W. F. Coale
George's Creek Coal Co.	No. 2	W. F. Coale
George's Creek Coal Co.	No. 3	W. F. Coale
George's Creek Coal Co.	No. 4	W. F. Coale
Midland Mining Co.	Neff Run	J. W. P. Somerville
Moscow & George's Creek Mining Co.	Moscow No. 2	J. W. P. Somerville
Moscow & George's Creek Mining Co.	Moscow No. 3	J. W. P. Somerville
Allegany Big Vein Coal Co.		U. Hanna
Frostburg Big Vein Coal Co.		Charles S. Jeffries
H. G. Evans	Borden	H. G. Evans
Wm. H. Barnes & Son	Barnes	Wm. H. Barnes
Mrs. Jacob E. Miller Fuel Co.	Big Vein	Mrs. Jacob Miller
Samuel E. Smith	Smiths	Samuel Smith
Solomon Brode	Brode	Solomon Brode
Eagan Mining Co.	Eagan	Charles Eagan
Fitzpatrick Coal Co.	Pekin Mine	John W. Fitzpatrick
Sullivan Bros. Coal Co.	Sullivan	John A. Sullivan
Sullivan Bros. Coal Co.	Sullivan	John A. Sullivan
Piedmont & George's Creek Coal Co.	Washington No. 1	Patrick Brophy
Piedmont & George's Creek Coal Co.	Washington No. 3	Patrick Brophy
Piedmont & George's Creek Coal Co.	Washington No. 5	Patrick Brophy
Piedmont & George's Creek Coal Co.	Washington No. 2	Martin Condry
United Big Vein Coal Co.	Trimble 1-2	H. W. Rowe
L. B. & M. Coal Co.	Langham	H. Langham
Stanton & George's Creek Coal Co.	Stanton	Louis Stanton
Clifton Big Vein Coal Co.	Clifton	William Harvey
New Central Coal Co.	Koontz	Alexander Adams
New Central Coal Co.	Big Vein	Alexander Adams
New Central Coal Co.	Big Vein	Alexander Adams
New Central Coal Co.	Midlothian	Alexander Adams
Brailer Mining Co.	Bald Knob	Wm. L. Hamilton
Evans Coal Co.	Evan	Benjamin Evans
C. O. Workman	No. 1-2	C. O. Workman

AND FOREMEN OF ALLEGANY COUNTY, 1918.

Superintendent.	Mine Foreman.
Harry Martin	Peter Hoye
Harry Martin	D. J. Morgan
Harry Martin	Hugo Rempel
Harry Martin	John Sluss
Harry Martin	Peter Hoye
Harry Martin	A. C. Neal
Harry Martin	Charles Shields
Harry Martin	Wm. Mather
Harry Martin	George Richardson
Harry Martin	George Richardson
Harry Martin	James Darrow
Harry Martin	Wm. Mather
Harry Martin	R. L. Edwards
Harry Martin	R. L. Edwards
John L. Casey	George McManus, Chas. Custer
John W. Kreitzburg	John W. Kreitzburg
Charles O. Enis	John Shuhart
Charles O. Enis	John Shuhart
Charles O. Enis	John Shuhart
John S Hart	Marcellus Morgan
William Walters	William Walters
William Walters	William Walters
J. O. J. Greene	Jas. Riggins
J. O. J. Greene	Jas. Riggins
Thomas Daily	David Wilkins
Thomas Harris	Thomas Harris
S. J. Alden	Albert Deffinbaugh, John Tipping
S. J. Alden	Albert Deffinbaugh, John Tipping
S. J. Alden	Albert Deffinbaugh, John Tipping
C. Roberts	Harry Retzor
J. W. P. Somerville	Frank C. Myers
James Jenkins	Robt. T. Shaw
James Jenkins	George Tennant
C. E. Potter	Jacob Blubaugh
W. E. G. Hitchin	George Arnold
Robert Harvey	Robert Harvey
W. H. Brown	Henry Biggs, P. H. Brown
John D. Frenzel	A. L. Frenzel
Robert L. Green	Robert L. Green
Elkins Read	James Dinning, Arch Stewart
	William B. MacMillan
E. J. Roberts	E. J. Roberts
William Hyde, Sr.	William Hyde, Sr.
William Hyde, Sr.	William Hyde, Sr.
J. R. Hamilton	Nathaniel Somerville
J. R. Hamilton	Nathaniel Somerville
J. R. Hamilton	Nathaniel Somerville
J. R. Hamilton	Nathaniel Somerville
J. R. Hamilton	Nathaniel Somerville
J. R. Hamilton	Nathaniel Somerville
J. R. Hamilton	Nathaniel Somerville
J. W. P. Somerville	J. S. Askey
J. W. P. Somerville	E. R. Brennan
J. W. P. Somerville	Edward Shaw
U. Hanna	James Hanna
Chas. S. Jeffries	Jos. J. Maurey
H. G. Evans	John Kemp
William H. Barnes	William H. Barnes
J. E. Miller	J. E. Miller
Samuel Smith	Samuel Smith
Solomon Brode	Solomon Brode
Charles Eagan	Charles Eagan
John W. Fitzpatrick	James Fitzpatrick
John A. Sullivan	John P. Barry
John A. Sullivan	Bernard D. Byrne
Patrick Brophy	Wm. P. Brophy, John J. Flaherty, Wm. Harper
Patrick Brophy	William P. Brophy
Patrick Brophy	M. T. O'Rourke, John D. Wallace
Martin Condry	Oscar Huber
Harry W. Rowe	Gus Lindeman
H. Langham	H. Langham
Louis Stanton	Louis Stanton
William Harvey	John Harvey
Alexander Adams	Joseph Todd
Alexander Adams	Robert Merrbaugh
Alexander Adams	Robert Merrbaugh
Alexander Adams	Robert Duncan
Wm. L. Hamilton	James Walsh
Benj. Evans	Benj. Evans
C. O. Workman	C. O. Workman

NAMES OF GENERAL MANAGERS, SUPERINTENDENTS

Name of Company	Mine	General Manager
Aberdeen Coal Co.	No. 1-2	A. Spates Brady
Pendergast & Ashby	No. 1-2	M. W. Pendergast
George Hoover	Hoovers	George Hoover
Monroe Coal Mining Co.		William H. Gibson
Davis Coal & Coke Co.	Kempton No. 42	M. A. Stewart
Blaine Mining Co.	Potomac Manor	J. G. Boyd
Garrett County Coal & Mining Co.		
Garrett County Coal & Mining Co.	No. 1-3-5-6-7	Wm. Gibson
G. C. Pattisono	Pattison	G. C. Pattison
Potomac Valley Coal Co.	Louise	Otis E. Abernathy
Potomac Valley Coal Co.	Peerless	Otis E. Abernathy
Myers Coal Co.	Myers	C. A. Bender
Hamill Coal & Coke Co.	Hamill	R. A. Smith
The Standard Coal Co.		Carl Hetzel
Trout Coal Co.	No. 1	R. A. Smith
Trout Coal Co.	No. 2	R. A. Smith
Hubbard Coal Mining Co.	No. 1-2-7	J. J. Johnston
Chaffee Coal Co.	Chaffee	Sheridan Stotlemeyer
Pattison & Brydon	Empire	L. B. Brydon
Offutts Coal Co.	Offutts	
J. M. Kisner	Kisner	J. M. Kisner
Bloomington Coal Co.	Bloomington	S. B. Brydon

NAMES OF GENERAL MANAGERS, SUPERINTENDENTS

Name of Company	Mine	General Manager
Union Mining Co.	Mt. Savage-Clay	S. J. Aldon
Big Savage Fire Brick Co.	Parker	D. A. Benson
Andrew Ramsay Co.	Maryland	Andrew Ramsay
Savage Mountain Fire Brick Co.	No. 5	John A. Caldwell

AND FOREMEN OF GARRETT COUNTY, 1918.

Superintendent.	Mine Foreman.
A. Spates Brady	R. H. Butler
	Jesse Ashby
George Hoover	George Hoover
S. B. Brydon	John Tibbett
Wm. Gibson	L. A. Kight
George Boyd	G. L. Campbell
George Boyd	G. L. Campbell
George Boyd	G. L. Campbell
Russell Pattison	Thomas Swan
Otis Abernathy	Joseph Smith
Otis Abernathy	Robert F. Pritts
Wm. P. Baker	Wm. P. Baker
R. A. Smith	W. D. Walker
R. L. Knight	R. L. Kight
J. S. Blackman	John Sheets
J. S. Blackman	John Sheets
J. J. Johnston	H. C. Paugh
Sheridan Stottlemeyer	Rutherford Stottlemeyer, Jas. Stewart
S. B. Brydon	John Tibbetts
	J. M. Kisner
A. Spates Brady	F. E. Christopher

AND FOREMEN OF CLAY MINES, 1918.

Superintendent.	Mine Foreman.
S. J. Alden	Joseph Finzle
Clarence Raley	Clarence Raley
James Jenkins	James Jenkins
G. A. Schuckhart	Chas. Wolfe

NAMES OF OFFICERS, ALLEGANY COUNTY, 1918.

Name of Company	Principal Office	President's Name and Address.	Secretary's Name and Address.
Consolidation Coal Co.	Continental Bldg., Baltimore, Md.	C. W. Watson, Continental Bldg., Baltimore, Md.	T. K. Stuart, Continental Bldg., Baltimore, Md.
Phoenix & George's Creek C. M. Co.	Westernport, Md.	W. D. Althouse, 515 Widener Bldg., Philadelphia, Pa.	
Cumberland Big Vein Coal Co.	Room 48 Third Natl. Bank, Cumberland, Md.	L. Lee Lichtenstein, Cumberland, Md.	Edward F. Ryan, Cumberland, Md.
Caledonia Coal Co.	Piedmont, W. Va.	Carroll Pattison, Bloomington	H. P. Brydon, Cumberland, Md.
George's Creek Coal Mining Co.	408 Frick Bldg., Pittsburgh, Pa.	Eugenie Reilly	F. E. Peabody, Treas. & Sec.
Midlothian Coal Co.	Cumberland, Md.	Carl Hetzel, Cumberland, Md.	R. S. Stallings, Cumberland, Md.
Miller & Green Coal Co.	Westernport, Md.	John P. Miller	J. O. J. Greene
Westernport Coal Co.	Westernport, Md.	William Paul, Westernport, Md.	Horace P. Whitworth, Westernport, Md.
Clair Coal Co.	403 Finance Bldg., Philadelphia, Pa.	V. H. Burtner, Westernport, Md.	V. H. Burtner, Westernport, Md.
New York Mining Co.	Baltimore, Md.	H. C. Black, Baltimore, Md.	H. C. Black, Baltimore, Md.
Mt. Savage & George's Creek Coal Co.	Frostburg, Md.	G. Stern, Frostburg, Md.	Julius Abramson, Frostburg, Md.
George's Creek-Parker Coal Co.	Cumberland, Md.	J. W. P. Somerville, Cumberland, Md.	C. D. Willard, Cumberland, Md.
McKee Coal Co.	Frostburg, Md.	J. Jenkins, Frostburg, Md.	William Jenkins, Frostburg, Md.
North Maryland Coal Co.	302 House Bldg., Pittsburgh, Pa.	E. J. House, House Bldg., Pittsburgh, Pa.	J. M. Irwin, House Bldg., Pittsburgh, Pa.
W. E. G. Hitchin	Frostburg, Md.	W. E. G. Hitchin, Frostburg, Md.	W. E. G. Hitchin, Frostburg, Md.
C. & W. Electric Railway Co.	Barton, Md.	Robert Harvey, Barton, Md.	Robert Harvey, Barton, Md.
West Virginia Pulp & Paper Co.	200 Fifth Ave., New York City.	John G. Luke	Charles A. Cass.
Chapman Coal Mining Co.	Baltimore, Md.	W. J. Chapman	G. W. Chapman.
Green Coal Mining Co.	Meyersdale, Pa.	E. W. Shipley, Meyersdale, Pa.	B. E. Shipley, Meyersdale, Pa.
Maryland Coal Co.	No. 1 Broadway, New York City.	J. W. Galloway, No. 1 Broadway, New York City.	J. E. McGowan, No. 1 Broadway, New York City.
Allegany Coal Co.	Westernport, Md.	E. J. Roberts	R. C. Roberts.
Hoffa Bros. Coal Co.	Piedmont, W. Va.	Thos. D. Campbell, Piedmont, W. Va.	Arthur P. Hoffa, Barton, Md.
George's Creek Coal Co., Inc.	Cumberland, Md.	H. E. Weber, Cumberland, Md.	Carl C. Hetzel, Cumberland, Md.
Midland Mining Co.	Cumberland, Md.	J. W. P. Somerville, Cumberland, Md.	W. A. S. Somerville, Cumberland, Md.
Moscow-George's Creek Mining Co.	Cumberland, Md.	J. W. P. Somerville, Cumberland, Md.	W. A. S. Somerville, Cumberland, Md.
Allegany Big Vein Coal Co.	84 Broadway, Frostburg, Md.	Wm. R. Genter, Frostburg, Md.	U. Hanna, Frostburg, Md.
Frosburg Big Vein Coal Co.	First National Bank Bldg., Frostburg, Md.	Roberdeau Annan, Frostburg, Md.	Chas. J. Jeffries, Frostburg, Md.
H. G. Evans	Frostburg, Md.	H. G. Evans, Frostburg, Md.	H. G. Evans, Frostburg, Md.
Wm. H. Barnes & Son	Midlothian, Md.	Wm. H. Barnes, Midlothian, Md.	Wm. H. Barnes, Midlothian, Md.
Mrs. Jacob E. Miller Fuel Co.	Lonaconing, Md.	Mrs. Jacob Miller, Lonaconing, Md.	Mrs. Jacob Miller, Lonaconing, Md.
Samuel E. Smith	Midlothian, Md.	Samuel Smith, Midlothian, Md.	Samuel Smith, Midlothian, Md.
Solomon Brode	Frostburg, Md.	Solomon Brode, Frostburg, Md.	Solomon Brode, Frostburg, Md.
Eagan Mining Co.	Midland, Md.	Charles Eagan, Midland, Md.	Charles Eagan, Midland, Md.
Fitzpatrick Coal Co.	Pekin, Md.	John W. Fitzpatrick, Pekin, Md.	John W. Fitzpatrick, Pekin, Md.
Sullivan Bros. Coal Co.	Frostburg, Md.	Dennis P. Sullivan, Eckhart Mines, Md.	William J. Sullivan, Eckhart Mines, Md.

NAMES OF OFFICERS, ALLEGANY COUNTY 1918.—Concluded.

Name of Company	Principal Office	President's Name and Address.	Secretary's Name and Address.
Piedmont & George Creek Coal Co.	Frostburg, Md.	John S. Brophy, Frostburg, Md.	John Keating, Cumberland, Md.
United Big Vein Coal Co.	Mt. Savage, Md.	Clarence F. Rowe, Meyersdale, Pa.	Clyde J. Rowe, Cumberland, Md.
L. B. & M. Coal Co.	Piedmont, W. Va.	D. S. Boal	D. S. Boal.
Stanton & George's Creek Coal Co.	Frostburg, Md.	Louis Stanton, Frostburg, Md.	William Stanton, Grantsville, Md.
Clifton Big Vein Coal Co.	Frostburg, Md.	Uriah Jones, Frostburg, Md.	D. D. Price, Frostburg, Md.
New Central Coal Co.	No. 17 Battery Place, New York City.	Malcolm Baxter.	L. L. Hansell.
Brailer Mining Co.	Mt. Savage, Md.	George C. Brailer, Mt. Savage, Md.	David Brailer, Mt. Savage, Md.
Evans Coal Co.	110 E. Main St., Lonaconing, Md.	Benj. Evans, Lonaconing, Md.	H. Clay Evans, Lonaconing, Md.
C. O. Workman	Frostburg, Md.	C. O. Workman, Frostburg, Md.	C. O. Workman, Frostburg, Md.

NAMES OF OFFICERS, GARRETT COUNTY, 1918.

Name of Company	Principal Office	President's Name and Address.	Secretary's Name and Address.
Aberdeen Coal Co.	Washington, D. C.	F. C. Leonard, Cowdersport, Pa.	Geo. S. Rees, Washington, D. C.
Pendergast & Ashby	Hutton, Md.	M. W. Pendergast, Hutton, Md.	M. W. Pendergast, Hutton, Md.
George Hoover	Jennings, Md.	George Hoover, Jennings, Md.	George Hoover, Jennings, Md.
Monroe Coal Mining Co.	Bethlehem, Pa.	Allan C. Dodson, Bethlehem, Pa.	Josiah Bachman, Bethlehem, Pa.
Davis Coal & Coke Co.	Baltimore, Md.	A. W. Calloway, Continental Bldg., Baltimore, Md.	E. R. Stewart, Continental Bldg., Baltimore, Md.
Blaine Mining Co.	No. 1 Broadway, New York City.	T. B. Davis, No. 1 Broadway, New York City.	J. W. Poole, No. 1 Broadway, New York City.
Garrett County Coal & Mining Co.	Bethlehem, Pa.	E. L. Bullock, Hazleton, Pa.	Chas. C. Bye, Wilmington, Del.
G. C. Pattison	Bloomington, Md.	G. C. Pattison, Bloomington, Md.	G. C. Pattison, Bloomington, Md.
Potomac Valley Coal Co.	Kitzmillerville, Md.	John Y. Hite, Fairmont, W. Va.	Louis Rafetto, 902 Finance Bldg., Philadelphia, Pa.
Myers Coal Co.	Grantsville, Md.	C. A. Bender, Grantsville, Md.	C. A. Bender, Grantsville, Md.
Hamill Coal & Coke Co.	Blaine, W. Va.	M. M. Brown, Blaine, W. Va.	J. A. Shore, Blaine, W. Va.
Standard Coal Co.	Cumberland, Md.	Carl C. Hetzel, Cumberland, Md.	G. H. Hetzel, Cumberland, Md.
Trout Coal Co.	Blaine, W. Va.	R. A. Smith, Blaine, W. Va.	F. G. Trout, Blaine, W. Va.
Hubbard Coal Mining Co.	904 American Bldg., Baltimore, Md.	E. Clay Timmans, 904 American Bldg., Baltimore, Md.	Peter Tonne, 904 American Bldg., Baltimore, Md.
J. M. Kisner	Sinse, Maryland.	J. M. Kisner, Sines, Md.	J. M. Kisner, Sines, Md.
Chaffee Coal Co.	1632 Real Estate Trust Bldg., Philadelphia, Pa.	P. J. Barrall, 1632 Real Estate Trust Bldg., Philadelphia, Pa.	P. M. Satterthwait, 1632 Real Estate Trust Bldg., Philadelphia, Pa.
Pattison & Brydon Coal Co.	Grafton, W. Va.	L. B. Brydon, Grafton, W. Va.	L. B. Brydon, Grafton, W. Va.
Offutts Coal Co.	Oakland, Md.		
Bloomngton Coal Co.	Grafton, W. Va.	Mrs. S. V. Brydon, Bloomington, Md.	L. B. Brydon, Grafton, W. Va.

NAMES OF OFFICERS, FIRE CLAY MINES, 1918.

Name of Company	Principal Office	President's Name and Address.	Secretary's Name and Address.
Union Mining Co.	Mt. Savage, Md.	H. C. Black, Baltimore, Md.	
Big Savage Fire Brick Co.	Allegany, Md.	D. Armstrong, Frostburg, Md.	D. A. Benson, Frostburg, Md.
Andrew Ramsay Co.	Mt. Savage, Md.	Andrew Ramsay, Mt. Savage, Md.	William Hopkins, Mt. Savage, Md.
Savage Mountain Fire Brick Co.	Frostburg, Md.	John A. Caldwell, Frostburg, Md.	W. F. Caldwell, Piedmont, W. Va.

ALLEGANY COUNTY TONNAGE FOR THE YEAR OF 1918

Name of Company	Tonnage
Consolidation Coal Co.	878,406.00
Phoenix and George's Creek Coal Mining Co.	41,907.18
Cumberland Big Vein Coal Co.	11,665.89
Caledonia Coal Co.	90,490.17
The George's Creek Coal Mining Co.	48,080.91
Midlothian Coal Co.	12,230.30
Miller & Green Coal Co.	17,120.00
Westernport Coal Co.	29,108.00
Clair Coal Co.	11,400.00
New York Mining Co.	107,258.22
Mt. Savage & George's Creek Coal Co.	44,356.29
George's Creek-Parker Coal Co.	40,056.00
McKee Coal Co.	37,929.00
North Maryland Coal Mining Co.	37,507.00
W. E. G. Hitchin	2,085.00
C. & W. Electric Railway Co.	4,485.00
West Virginia Pulp & Paper Co.	140,377.00
Chapman Coal Mining Co.	69,850.00
Green Coal Mining Co.	9,000.00
Maryland Coal Co.	152,375.25
Allegany Coal Co.	37,166.10
Hoffa Bros. Coal Co.	80,210.00
George's Creek Coal Co.	203,556.00
Midland Mining Co.	63,213.19
Moscow-George's Creek Mining Co.	41,592.00
Allegany Big Vein Coal Co.	10,796.00
Frostdurg Big Vein Coal Co.	39,615.41
H. G. Evans	10,103.00
Wm. H. Barnes & Son	760.00
Mrs. Jacob E. Miller Fuel Co.	1,600.00
Samuel E. Smith	2,760.00
Solomon Brode	2,020.00
Eagan Mining Co.	2,115.00
Fitzpatrick Coal Co.	14,115.00
Sullivan Bros. Coal Co.	106.557.00
Piedmont & George's Creek Coal Co.	151,376.31
United Big Vein Coal Co.	28,000.00
L. B. M. Coal Co.	4,560.00
Stanton & George's Creek Coal Co.	7,082.00
Clifton Big Vein Coal Co.	3,390.00
New Central Coal Co.	86,629.00
Brailer Mining Co.	36,439.00
Evans Coal Co.	394.00
C. O. Workman	3,453.00
Total	2,723,189.22

GARRETT COUNTY TONNAGE FOR THE YEAR 1918-19

Name of Company	Tonnage
Aberdeen Coal Co.	14,000.00
Pendergast & Ashby	8,225.00
George Hoover	2,121.93
Monroe Coal Mining Co.	25,009.12
Davis Coal & Coke Co.	160,987.15
Elaine Mining Co.	118,051.00
Garrett County Coal & Mining Co.	105,433.00
Garrett County Coal & Mining Co.	120,050.02
G. C. Pattison	23,960.00
Potomac Valley Coal Co.	59,272.20
Myers Coal Co.	5,016.00
Hamill Coal & Coke Co.	112,000.00
The Standard Coal Co.	15,160.00
Trout Coal Co.	4,000.00
Hubbard Coal Mining Co.	9,789.00
Chaffee Coal Co.	98,000.00
Pattison & Brydon	1,918.00
Offutts Coal Co.	300.00
J. M. Kisner	750.00
Bloomington Coal Co.	33,376.00
Total	917,420.00

TONNAGE FOR THE YEAR 1918—CLAY MINES

Name of Company	Tonnage
Union Mining Co.	38,630.00
Big Savage Fire Brick Co.	21,569.00
Andrew Ramsay Co.	3,133.00
Savage Mountain Fire Brick Co.	12,617.00
Total	75,949.00

DETAILS OF PERSONS EMPLOYED, DAYS WORKED AND TONNAGE FOR ALLEGANY COUNTY, FOR THE YEAR 1918.

Name of Company.	Mine	Openings	Coal Seam Worked	Distribution of Employees					Days Worked During the Year	Output Statistics			Accidents	
				Miners	Drivers	Inside Laborers	Outside Laborers	Total		Pick	Machine	Total	Fatal	Non-Fatal
Consolidation Coal Co.	No. 1	3	Pittsburg-Big Vein	149	15	46	41	251	284	183,332	.....	183,332	....	13
Consolidation Coal Co.	No. 3	3	Pittsburg-Big Vein	106	10	44	39	199	298	123,928	.....	123,928	1	27
Consolidation Coal Co.	No. 4	2	Pittsburg-Big Vein	52	6	17	26	101	248	60,235	.....	60,235	1	7
Consolidation Coal Co.	No. 7	2	Pittsburg-Big Vein	59	6	13	19	97	287	79,734	.....	79,734	....	15
Consolidation Coal Co.	No. 8	2	Pittsburg-Big Vein	25	2	4	2	33	280	28,125	.....	28,125	....	3
Consolidation Coal Co.	No. 12	2	Pittsburg-Big Vein	92	10	23	17	142	282	140,229	.....	140,229	....	12
Consolidation Coal Co.	No. 13	4	Pittsburg-Big Vein	41	4	12	12	69	231	32,808	.....	32,808	....	2
Consolidation Coal Co.	No. 14	2	Pittsburg-Big Vein	13	2	8	3	26	265	8,699	.....	8,699	....	2
Consolidation Coal Co.	No. 15	5	Pittsburg-Big Vein	.....	2	16	6	24	187	1,399	.....	1,399	....	....
Consolidation Coal Co.	No. 16	8	Pittsburg-Big Vein	26	4	8	40	78	187	25,240	.....	25,240	....	6
Consolidation Coal Co.	No. 6	2	Sewickly-Tyson	14	4	2	2	22	247	11,009	.....	11,009	....	15
Consolidation Coal Co.	No. 9	5	Sewickly-Tyson	121	3	31	18	173	255	87,286	13,223	100,509	....	14
Consolidation Coal Co.	No. 10	2	Sewickly-Tyson	65	1	14	8	88	256	64,111	.....	64,111	....	7
Consolidation Coal Co.	No. 11	2	Sewickly-Tyson	18	3	3	3	27	252	19,048	.....	19,048	....	2
Phoenix & George's Creek C. M. Co.	Elkhart	2	Barton-Freeport	59	6	6	11	82	225	41,907.18	.....	41,907.18	....	1
Cumberland Big Vein Coal Co.	Conway	1	Big Vein	14	2	1	7	24	222	11,665.89	.....	11,665.89	1	....
Caledonia Coal Co.	No. 1-2	....	Bakerstown	30	5	3	5	43	241	32,471	.....	32,471	....	....
Caledonia Coal Co.	Tyson	....	Tyson	38	5	2	8	53	241	33,278.17	.....	33,278.17	....	....
Caledonia Coal Co.	Big Vein	....	Big Vein	12	2	....	....	14	241	24,741	.....	24,741	....	6
The George's Creek C. M. Co.				102	....	....	....	102	230	48,080.91	.....	48,080.91	....	....
Midlothian Coal Co.	Big Vein	1	Big Vein	15	....	....	5	20	.....	6,784.11	.....	6,784.11	....	....
Midlothian Coal Co.	Tyson	1	Tyson	7	....	....	3	10	.....	5,446.19	.....	5,446.19	....	....
Miller & Green Coal Co.	No. 1	1	Clarion	14	2	1	7	24	249	17,120	.....	17,120	....	....
Miller & Green Coal Co.	No. 2	1	Kittanning	4	2	....	9	15	221	.....	.....	.....	....	....
Westernport Coal Co.	No. 1	....		40	....	....	....	40	207	29,108	.....	29,108	....	3
Clair Coal Co.				65	....	....	....	65	215	11,400	.....	11,400	....	....
New York Mining Co.	Union No. 1	1	Pittsburg	90	18	8	16	132	174	63,698.17	5,991.15	69,680.12	....	....
New York Mining Co.	Union No. 1	1	Tyson	14	3	2	1	20	184	7,058.10	.....	7,058.10	2	14
New York Mining Co.	Union No. 2	1	Pittsburg	40	4	3	6	53	204	30,520	.....	30,520	....	1
Mt. Savage & George's Creek Coal Co.	No. 1	1	Bluebaugh	60	6	14	10	90	221	44,356.29	.....	44,356.29	1	3
George's Creek-Parker Coal Co.	Parker	....	Bond	38	5	3	4	50	243	40,056	.....	40,056	....	11
McKee Coal Co.	No. 1	....		30	....	....	....	30	290	29,658	.....	29,658	1	2
McKee Coal Co.	No. 2	....		75	....	....	....	75	43	8,271	.....	8,271	....	1
North Maryland Coal Mining Co.				40	....	....	....	40	.....	37,507	.....	37,507	....	....
W. E. G. Hitchin	No. 1-2	2	Big Vein	32	....	....	....	32	159	2,085	.....	2,085	....	....

DETAILS OF PERSONS EMPLOYED, DAYS WORKED AND TONNAGE FOR ALLEGANY COUNTY FOR THE YEAR 1918.

Name of Company.	Mine	Openings	Coal Seam Worked	Distribution of Employees					Days Worked During the Year	Output Statistics			Accidents	
				Miners	Drivers	Inside Laborers	Outside Laborers	Total		Pick	Machine	Total	Fatal	Non-Fatal
C. & W. Elecric Railway Co.	Reynolds	2	Freeport	2	1	1	....	4	300	4,485	.....	4,485	....	....
West Virginia Pulp & Paper Co.	Devon	1	Kittanning	80	9	11	15	115	309	140,377	.....	140,377	....	5
Chapman Coal Mining Co.	Swanton	1	Bakerstown	115	29	6	19	169	217	69,850	.....	69,850	....	1
Green Coal Mining Co.				20	....	....	....	20	.....	9,000	.....	9,000	....	....
Maryland Coal Co.	Kingsland	....	Tyson-Waynesburg-Big Vein	128	15	31	22	196	207	87,867.11	64,508.14	152,375.25	....	17
Allegany Coal Co.				40	....	....	....	40	180	37,166.10	.....	37,166.10	....	....
Hoffa Bros. Coal Co.	Potomac	9	Big Vein-Bakersown	55	15	3	25	98	180	71,869	.....	71,869	....	4
Hoffa Bros. Coal Co.	Moscow	1	Bakerstown	12	2	1	3	18	142	8,341	.....	8,341	1	4
George's Creek Coal Co.	No. 1	1	Big Vein-Pittsburg	7	1	....	1	9	175	6,684	.....	6,684	....	1
George's Creek Coal Co.	No. 2	1	Big Vein-Pittsburg	8	1	....	1	10	214	11,648	.....	11,648	1	1
George's Creek Coal Co.	No. 9	1	Big Vein-Pittsburg	18	2	....	1	21	201	16,595	.....	16,595	....	1
George's Creek Coal Co.	No. 1	1	Tyson-Sewickly	40	7	10	7	64	251	45,163	.....	45,163	....	1
George's Creek Coal Co.	No. 2	1	Tyson-Sewickly	22	3	3	1	29	214	17,101	.....	17,101	....	....
George's Creek Coal Co.	No. 3	1	Tyson-Sewickly	50	6	12	9	77	246	48,433	.....	48,433	....	3
George's Creek Coal Co.	No. 4	1	Tyson-Sewickly	55	6	7	10	78	266	57,932	.....	57,932	....	1

DETAILS OF PERSONS EMPLOYED, DAYS WORKED AND TONNAGE FOR ALLEGANY COUNTY FOR THE YEAR 1918.

Name of Company.	Mine	Openings	Coal Seam Worked	Distribution of Employees					Days Worked During the Year	Output Statistics			Accidents	
				Miners	Drivers	Inside Laborers	Outside Laborers	Total		Pick	Machine	Total	Fatal	Non-Fatal
Midland Mining Co.	Neff Run	5	Big Vein	43	9	5	5	62	250	63,213.19	.....	63,213.19	....	....
Moscow-George's Creek Mining Co.	Moscow No. 2	2	Pittsburg	34	5	8	14	61	236	41,592	.....	41,592	....	....
Moscow-George's Creek Mining Co.	Moscow No. 3	1	Bakerstown	.....	....	....	....	.....	.....	.....	.....	.....	....	....
Allegany Big Vein Coal Co.		....		26	....	....	....	26	215	10,796	.....	10,796	....	1
Frosburg Big Vein Coal Co.		....		467	....	....	345	812	255	39,615.41	.....	39,615.41	....	3
H. G. Evans		....		4	....	....	....	4	305	10,103	.....	10,103	....	....
Wm. H. Barnes & Son		....		2	....	....	....	2	136	760	.....	760	....	....
Mrs. Jacob E. Miller Fuel Co.		....		3	....	....	....	3	.....	1,600	.....	1,600	....	....
Samuel E. Smith		....		3	....	....	....	3	186	2,760	.....	2,760	....	....
Solomon Brode		....		4	....	....	....	4	.....	2,020	.....	2,020	....	....
Eagan Mining Co.	Eagan	1	Big Vein	3	1	....	....	4	110	2,115	.....	2,115	....	....
Fitzpatrick Coal Co.	Pekin Mine	....	Big Vein	18	1	2	3	24	175	14,115	.....	14,115	....	....
Sullivan Bros. Coal Co.	Sullivan No. 1	....	Pittsburg-Tyson	63	9	15	17	104	245	54,807	.....	54,807	....	1
Sullivan Bros. Coal Co.	Sullivan No. 2	....	Pittsburg	52	6	6	14	78	250	51,750	.....	51,750	....	5
Piedmont & George's Creek Coal Co.	Washington No. 1	1	Lower Kittanning	29	....	28	13	70	272	.....	46,680.13	46,680.13	....	5
Piedmont & George's Creek Coal Co.	Washington No. 2	3	Tyson	34	....	15	13	62	281	42,125.15	.....	42,125.15	....	3
Piedmont & George's Creek Coal Co.	Washington No. 3	1	Six Foot	5	....	....	....	5	246	7,013.08	.....	7,013.08	....	....
Piedmont & George's Creek Coal Co.	Washington No. 5	4	Four Foot	35	....	21	14	70	264	17,250.04	38,308.01	55,558.05	....	6
United Big Vein Coal Co.	Trimble No. 1-2	2	Pittsburg	43	4	4	13	64	.....	28,000	.....	28,000	....	....
L. B. M. Coal Co.	Langham	1	Bakerstown	8	2	....	6	16	152	4,560	.....	4,560	....	....
Stanton & George's Creek Coal Co.	Stanton No. 1	1	Kittanning	8	2	....	3	13	263	7,082	.....	7,082	....	....
Clifton Big Vein Coal Co.	Clifton	1	Pittsburg-Big Vein	3	....	....	....	3	210	3,390	.....	3,390	....	....
New Central Coal Co.	koontz	....	Tyson	52	8	7	12	79	280	57,380	.....	57,380	....	....
New Central Coal Co.	Big Vein	....	Tyson	20	4	....	2	26	271	24,590	.....	24,590	....	....
New Central Coal Co.	Big Vein	....	Pittsburg	8	1	....	....	9	.....	3,462	.....	3,462	....	....
New Central Coal Co.	Midlothian	....	C.	10	1	....	3	14	24	1,197	.....	1,197	....	....
Brailer Mining Co.	Bald Knob	1	Pittsburg	50	6	6	8	70	200	36,439	.....	36,439	....	....
Evans Coal Co.	Evan	1	Franklin or Dirty Mine	4	....	....	....	4	100	394	.....	394	....	....
C. O. Workman	No. 1-2	2	Main Pittsburg	7	....	....	1	8	209	3,453	.....	3,453	....	....

DETAILS OF PERSONS EMPLOYED, DAYS WORKED AND TONNAGE FOR GARRETT COUNTY, FOR THE YEAR 1918.

Name of Company.	Mine	Openings	Coal Seam Worked	Distribution of Employees					Days Worked During the Year	Output Statistics			Accidents	
				Miners	Drivers	Inside Laborers	Outside Laborers	Total		Pick	Machine	Total	Fatal	Non-Fatal
Aberdeen Coal Co.	Steyer	1	Lower Kittanning	36	....	....	....	36	191	14,000	.....	14,000	....	....
Pendergast & Ashby	No. 1-2	....	Freeport	12	....	....	....	12	201	8,225	.....	8,225	....	....
George Hoover	Hoovers	1	Honey Comb	9	....	....	....	9	107	2,121.93	.....	2,121.93	....	..
Monroe Coal Mining Co.		....		53	....	....	....	53	220	25,009.12	.....	25,009.12	....	2
Davis Coal & Coke Co.	Kempton No. 42	....	Lower Kittanning	148	....	....	....	148	279	160,987.15	.....	160,987.15	2	31
Blaine Mining Co.	Potomac Manor	....	Kittanning	101	13	7	26	147	281	118,051	.....	118,051	....	5
Garrett County Coal and Mining Co.		....		200	....	....	....	200	214	105,433	.....	105,433	....	11
Garrett County Coal and Mining Co.		....		.....	....	....	30	30	.....	120,050.02	.....	120,050.02	....	....
G. C. Pattison	Pattison	2	Bakerstown-Kittanning	24	5	2	6	37	156	23,960	.....	23,960	....	....
Potomac Valley Coal Co.	Louise	1	Kittanning	5	1	1	1	8	198	1,764.17	.....	1,764.17	....	....
Potomac Valley Coal Co.	Peerless	3	Freeport	45	10	5	9	69	203	57,508.03	.....	57,508.03	....	2
Myers Coal Co.	Myers	....		8	....	....	....	8	123	5,016	.....	5,016	1	....
Hamll Coal & Coke Co.	Hamill	....	Kittanning-Freeport	65	15	19	16	115	240	112,000	.....	112,000	....	4
The Standard Coal Co.		2	Kittanning-Clarion	32	3	2	4	41	266	15,160	.....	15,160	....	....
Trout Coal Co.	No. 1	1	Clarion	6	1	....	1	8	150	2,000	.....	2,000	....	1
Trout Coal Co.	No. 2	1	Lower Kittanning	3	1	1	....	5	150	2,000	.....	2,000	....	....
Hubbard Coal Mining Co.	No. 1-2-7	3	Lower Kittanning	20	3	6	12	41	222	2,447	7,342	9,789	1	....
Chaffee Coal Company		....		70	10	5	10	95	287	98,000	.....	98,000	....	....
Pattison & Brydon	Empre	....	Kittanning	11	3	1	1	16	294	1,918	.....	1,918	....	....
Offutts Coal Co.	Offutts	....	Four Foot	2	1	....	....	3	30	300	.....	300	....	....
J. M. Kisner	Kisner	....		2	....	....	....	2	70	750	.....	750	....	....
Bloomington Coal Co.	Bloomington	....	Kittanning	32	5	1	8	46	285	33,376	.....	33,376	....	....
				884	71	50	124	1,129		910,078	7,342	917,420	4	56

DETAILS OF PERSONS EMPLOYED, DAYS WORKED AND TONNAGE FOR THE FIRE CLAY MINES, FOR THE YEAR 1918.

Name of Company	Mine	Openings	Coal Seam Worked	Distribution of Employees					Days Worked During the Year	Output Statistics			Accidents	
				Miners	Drivers	Inside Laborers	Outside Laborers	Total		Pick	Machine	Total	Fatal	Non-Fatal
Union Mining Co.	No. 5-6	2	Clay, Mt. Savage	54	8	12	13	87	224	38,630	.....	38,630	1	3
Big Savage Fire Brick Co.	No. 1-2	2	Parker	23	5	3	7	38	280	21,569	.....	21,569	....	1
Andrew Ramsey Co.	Maryland	1		48	....	....	....	48	295	3,133	.....	3,133	....	....
Savage Mountain Fire Brick Co.	No. 5	1		19	3	4	7	33	.....	12,617	.....	12,617	....	....
				144	16	19	27	206		75,949		75,949	1	4

ALLEGANY COUNTY IMPROVEMENTS FOR 1918.

The Consolidation Coal Co.	Refuse Disposal Plants at Mines No. 1 and 3.
Phoenix & George's Creek Mining Co.	Graded and laid 2,000 feet of tram road. Made two openings in the Bakerstown seam. Installed a 20 H. P. motor to run fan, and picking table to clean coal on dump.
Cumberland Big Vein Coal Co.	Built one mile tram. Installed donkey engine. Built new tipple at Eckhart, Md.
Miller & Green Coal Co.	Electrified mines. Machinery installed, but not in operation.
Mt. Savage George's Creek Coal Co.	Installed electricity.
North Maryland Coal Mining Co.	Installed Ridgeway generator motor and motor for haulage. Equipped mines with electric machinery. installed a five-foot Stine fan, which is run by a 5 H. P. motor. Installed a link belt picking table to clean coal. Do not use black powder or dynamite, only permissable explosives.
L. B. & M. Coal Co.	Installed new fan and engine. New mules and mining cars.

ALLEGANY COUNTY.

Name of Company.	Veins of Coal Known to Be on the Property, with Acreage of Each Supposed to Exist.
Consolidaion Coal Co.	Big Vein, 8,937.819 acres; Upper Tyson or Sewickley, 5,473 acres; Red Stone, Lower Sewickley, Waynesburg, Washington and all seams given in the Maryland State Geological Survey Reports, the acreage of which have not been defined.
Phoenix & George's Creek Mining Co.	All seams of coal below Big Vein, 446 acres.
Miller & Green Coal Co.	Split Six, 200 acres, not developed; Six Foot, 200 acres.
New York Mining Co.	No. 1, Pitts-Tyson-Redstone. No. 2, Pits-Tyson.
Mt. Savage George's Creek Coal Co.	Bluebaugh.
George's Creek-Parker Coal Co.	Parker Vein, Bond Vein, Harlan Vein.
C. & W. Elecric Railway	Split Six, 45 acres; Freeport, 30 acres.
West Virginia Pulp & Paper Co.	Middle Kittanning, 100 acres; Lower Kittanning, 100 acres; Clarion, 120 acres.
Chapman Coal Mining Co.	Little Pittsburgh, 600 acres; Clarksburg, 650 acres; Tyson, 6 acres; Big Vein, 5 acres.
Hoffa Bros. Coal Co.	Big Vein, acreage no known; Bakerstown, 800 acres.
Piedmont & George's Creek Coal Co.	Tyson, 34¼ acres; Six Foot, 126¼ acres; Four Foot, 13¼ acres; Lower Kittanning, 463½ acres.
United Big Vein Coal Co.	Pittsburgh, Tyson, Redstone, and all veins below.
L. B. & M. Coal Co.	Bakerstown, 28½ acres; Big Vein, ¼ acre.

ALLEGANY COUNTY (Continued)

Coal Area Worked Out.	Acreage yet to mine.
Consoldation Coal Co. Only partially worked. No seams below the Big Vein having been developed.	12,774.380 acres.
Phoenix & George's C. M. Co. 10 acres.	446 acres.
Cumberland Big Vein Coal Co. 3 acres.	122 acres.
Miller & Green Coal Co. Clarion, 200 acres; Six Foot, 2 acres.	Clarion, 250 acres. Six Foot, 198 acres.
New York Mining Co. No. 1, 16 acrfes; No. 2, 3½ acres.	No. 1, 175 acres. No. 2, 5 acres.
Mt. Savage George's Creek Coal Co. 35 acres.	2,490 acres.
C. & W. Electric Railway. 7 acres.	30 acres.
West Virginia Pulp & Paper Co. 55 acres.	45 acres.
Chapman Coal Co. 9 acres.	100 acres. Bakerstown.
Hoffa Bros. Coal Co. 10 acres.	
Piedmont & George's Creek Coal Co. 40½ acres.	
United Big Vein Coal Co. 4 acres Pittsburg.	320 acres, Pittsburg.
L. B. & M. Coal Co. 1½ acres.	28½ acres.
George's Creek Coal Co. 51½ acres.	

GARRETT COUNTY IMPROVEMENTS FOR 1918.

Potomac Valley Coal Co.	90 ft. spur swich to mine siding at Louise Mine. At Peerless Mine, repaired tipple bridge, railroad side track addition. Installed new ventilating system and water system with 16,000 gallons capacity. Built new gasoline and oil house, opened natural drainage. Retimbered haulways and overhauled entire motor haulway. Built bunk house for employes working on motors at night. Improved base of Installed mine telephones.
Trout Coal Co.	Building houses, six. Development of mines.
Hubbard Coal Mining Co.	One opening.
Chaffee Coal Co.	Built new tipple and installed 70-ton Shay engine.

FIRE CLAY MINES IMPROVEMENTS FOR 1918.

Union Mining Co.	One 200 H. P. electric hoister replacing gravity plane.

GARRETT COUNTY IMPROVEMENTS FOR 1918

Name of Company.	Veins of Coal Known to Be on the Property, with Acreage of Each Supposed to Exist.
Potomac Valley Coal Co.	Upper Freeport, 176 2-3 acres; Lower Kittanning, 196 2-3 acres.
Hamill Coal & Coke Co.	Kittanning, 600 acres; Freeport, 350 acres.
The Standard Coal Co.	Bakerstown, Upper and Lower Kittanning; Upper and Lower Freeport; Clarion.
Trout Coal Co.	1,048 in tract, with four workable seams, but estimated at 3,000 acres in all.
Hubbard Coal Mining Co.	Upper Freeport, 450 acres; Lower Freeport, 450 acres; Lower Kittanninig, 150 acres; Clarion, 450 acres.
Chaffee Coal Co.	Lower Kittanning, 700 acres; Freeport, 400 acres.

GARRETT COUNTY (Continued)

Coal Area Worked Out.	Acreage yet to Mine.
Blaine Mining Co. 562 acres.	371 acres.
G. C. Pattison 20 acres.	
Potomac Valley Coal Co. 15 9-10 acres.	354 acres.
The Standard Coal Co. 5 acres.	750 acres.
Trout Coal Co. 2 acres.	1,046 in lower seam
Hubbard Coal Mining Co. 300 acres.	150 acres.
Chaffee Coal Co. 100 acres.	1,100 acres.

ALLEGANY COUNTY MINES.

CONSOLIDATION COAL COMPANY.

Peter Hoye.....Mine Foreman.

Consol Mine No. 1 is located at Ocean on the east side of the George's Creek. It is a slope opening working the Pittsburg or Big Vein Coal Seam, and is opened up on the double entry system.

Ventilation is produced by steam driven fans, and the air current is conducted to the working faces, by overcasts, doors and bracttices. It is found in a satisfactory and lawful condition.

Drainage is very difficult, owing to the low condition of the mine, and a heavy expense is incurred keeping it satisfactory. It is obtained by being drained through the Hoffman tunnel.

Timbering is found in a good condition, and owing to the age of the mine, it requires a great deal of timbering to keep the roof in a safe condition.

The coal is mined by pick, blasted by powder, and is gathered and hauled to the side track in the interior by horses, from there it is conveyed to the bottom of the slope by two Baldwin air motors 17 and 19 tons. It is then hoisted by a Dixon hoisting machine to the outside, where it is dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad. Oil and carbide are used by the miners for illumination.

During the year 1918 they employed 251 men, worked 284 days and produced 183,332 tons of coal.

Harry Martin.....General Superintendent.

D. J. Morgan.....Foreman.

Consol Mine No. 3, is located at Hoffman, one and one-half miles east of Frostburg. It is a slope opening working the Pittsburg or Big Vein Seam of coal, and is developed on the double entry system.

Ventilation is produced by a steam-driven fan, and the air current is conducted to the working faces by overcasts, doors and brattices. It is found in a satisfactory and lawful condition.

Drainage is most difficult, and it is necessary to have a number of pumps and ditches in order to keep the drainage in a lawful condition. Drainage is through the Hoffman ditch, which emptied into the Braddock Run at Clarysville.

Timbering is found in a good condition, but it requires a great deal of timbering to keep the roof in a safe condition.

The coal is mined by pick, blasted by black powder and is gathered in the interior to a side track by horses and is conveyed to the bottom of the slope by a 19-ton air motor. It is then raised

7,500 feet to the outside by a hoisting engine. It is then dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 199 men, worked 298 days and produced 123,928 tons of coal.

Hugo Rempel.....Mine Foreman.

Consol Mine No. 4 is a slope opening working the Pittsburg or Big Vein coal seam. It is developed on the double entry system.

Ventilation is produced by a steam-driven fan, and is conducted to the working faces by brattices.

Drainage is very difficult, but by the use of pumps and ditches it is kept in a lawful condition.

The roof is of a very dangerous character, owing to the age of the mine. The timbering, however, is well looked after.

The coal is mined by pick, blasted by black powder, and hauled to the side track in the interior by mules. It is then conveyed to the bottom of the slope by motor, hoisted to the outside by means of a stationary engine, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 101 men, worked 248 days and produced 60,235 tons of coal.

James Darrow.....Mine Foreman.

Consol Tyson Mine No. 6 is located at National. It is a drift opening working the Sewickley or Tyson coal seam, and is developed on the double-entry system.

Ventilation is produced by natural means and is conducted to the working faces by brattices.

Drainage is in a lawful condition. The roof is very dangerous, but the timbering is well looked after.

The coal is mined by pick, blasted by black powder. It is hauled to the outside by mules, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 22 men, worked 247 days, and produced 11,009 tons of coal.

John Sluss.....Mine Foreman.

Consol Mine No. 7 is located at Lord one and one-half miles west of Carlos Junction. It is a slope opening, working the Pittsburg or Big Ven seam of coal, and is developed on the double-entry system.

The ventilation is found in a lawful condition, and is produced by a steam-driven fan. It is conducted to the working faces by doors and brattices.

Drainage is by natural means, and is drained into the Ocean water ditch. It is in good condition.

The roof is of the usual character, which overlies the Pittsburg seam in this region, and the timbering is well looked after.

The coal is gathered and hauled to the bottom of the slope by horses, from where it is hoisted 5,000 feet to the outside, dumped into railroad cars and shipped over the Carlos Branch of the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 97 men, worked 287 days and produced 79,734 tons of coal.

Peter Hoye.....Mine Foreman.

Consol Mine No. 8 is located on the west side of the George's Creek, and is on the main line of the Cumberland and Pennsylvania Railroad. It is a slope opening, working the Pittsburg or Big Vein coal seam, and is developed on the double entry system.

Ventilation is produced by a fan driven by an electric motor. It is conducted to the working face by doors, brattices and stoppings. Although it is difficult to ventilate the mine it is kept in a good condition.

Drainage is by means of the pumps and ditches emptying into the Ocean ditch.

The roof is very dangerous, but the timbering is well looked after.

The coal is gathered and hauled to the bottom of the slope by horses, it is hoisted to the outside, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 33 men, worked 280 days and produced 28,125 tons of coal.

Wm. Mather.....Mine Foreman.

Consol Mine No. 9 is located at the end of the "Y" on the main line of the Cumberland and Pennsylvania Railroad. It consists of four drift openings, known as B, C, D, E, working the Tyson coal seam. D and E serve as a travel way for men, and B and C are used for haulage.

Ventilation is found in a satisfactory condition and is produced by steam-driven fans. It is conducted to the working face and throughout the mine by overcasts, doors and brattices.

Drainage is very difficult, but is kept in a lawful condition, by holes being driven to the big vein and by the use of ten large electric pumps.

The coal is undercut by machine and by hand pick. The coal is gathered and conveyed to side tracks by motors. It is taken to the tipple by electric motors, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 173 men, worked 255 days and produced 100,509 tons of coal.

R. L. Edwards.....Mine Foreman.

Consol Mine No. 10 is located at Eckhart, Md., west of the Consol Mine No. 4. It is a drift opening, working the Upper Sewickley or Tyson coal seam, and is developed on the double-entry system.

Ventilation is produced by fan driven by an electric motor. The air is conducted to the working face by overcasts, doors and brattices.

Drainage is very difficult, but is kept in a lawful condition by pumps and holes being driven into the big vein.

The roof is as good as the average found in the Tyson vein and requires a great deal of timbering.

The coal is gathered and conveyed to the side tracks by mules in the old section, while in the new section it is conveyed to the side tracks by electric motors. It is taken to the outside and over a tram road 2,000 feet long to the dump by a large motor. It is then dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

R. L. Edwards.....Mine Foreman.

Consol Mine No. 11 is located at pumping shaft, above the big vein of Consol Mine No. 5. It is a shaft opening, working the Upper Sewickley or Tyson coal seam, and is developed on the double-entry system.

Ventilation is produced by a steam-driven fan, and is conducted to the working face by overcasts and brattices.

Drainage is very difficult, but is kept in a satisfactory condition by electric pumps and holes drilled into the big vein.

Roofing is good, except in a few places.

The coal is gathered and hauled to side tracks by mules, and is conveyed to a chute which is driven to the strata to the big vein at No. 3. It is then dumped into mine cars at the bottom of No. 3, conveyed to the tipple, dumped into railroad cars and shipped over Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 27 men, worked 252 days and produced 19,048 tons of coal.

A. C. Neal.....Mine Foreman.

Consol Mine No. 12 is located at Borden Shaft, on the main line of the Cumberland and Pennsylvania Railroad. It is a shaft opening working the Pittsburg or Big Vein seam of coal. It is developed on the double entry system.

Ventilation is produced by a fan driven by a Crawford & McCrimmond engine at pumping shaft.

Drainage is by natural means and ditches, and is drained into the Hoffman water ditch. The roof is as good as the average, and requires a great deal of timbering.

The coal is gathered and hauled to a side track into the interior by horses, and hauled to the bottom of the shaft by air motor. It is then raised to the surface and dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 142 men, worked 282 days and produced 140,229 tons of coal.

Charles Shields.....Mine Foreman.

Mine No. 13 is located at Old Consolidation, a village about one mile west of Frostburg, operating a series of drift openings in the Pittsburg and Tyson coal seam.

Drift No. 1 is ventilated by a steam-driven fan. The air current is conducted to the working face by brattices and doors, and is found in a good condition.

The coal is gathered and hauled to the tipple by horses, where it is dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

The slope opening is ventilated by a steam-driven fan and the air current is conducted to the working face by doors and brattices and is found in a lawful condition. The roof is good and the timbering is well looked after. The coal is gathered and hauled to the bottom of the slope by horses. It is then hoisted by engine and dumped in conjunction with the output of No. 1.

B, C and D are drift openings, working the Sewickley or Tyson coal seam. The ventilation is produced by natural means, and is not always satisfactory.

The coal is gathered and hauled to the outside and over a short tram road to the tipple by mules. It is then dumped in connection with the output of No. 1 and 2.

During the year 1918-19 they employed 69 men, worked 231 days and produced 32,808 tons of coal.

Wm. Mather.....Mine Foreman.

Consol Mine No. 14 is located at Allegany, and is known as the "Old Allegany Mine." It is a drift opening, working the Pittsburg or Big Vein coal seam, and is developed on the double-entry system.

Ventilation is produced by a five-foot fan, driven by an electric motor. The air current is conducted to the working face by approved doors and brattices.

Drainage is by means of ditches and is drained into the Allegany Ditch. The roof is of the usual character, overlying the Pittsburg seam.

The coal is gathered and hauled to the outside and to the head of the plane by horses. It is then lowered 600 feet, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 26 men, worked 265 days and produced 8,699 tons of coal.

George Richardson.....Mine Foreman.

Consol Mine No. 16 is located about two miles east of Midland. It consists of a series of openings and is developed on the double entry system.

No. 1 and Hoffman No. 3 are slope openings, and No. 4 is a drift opening. Ventilation is produced by an electric fan, and is conducted to the working faces by overcasts, doors and brattices.

Drainage is by means of pumps and is found in a satisfactory condition.

Timbering is carefully looked after.

Coal is gathered in the interior by horses, and hauled to the outside by electric hoists. It is hauled from No. 1 and 3 mines by means of a small engine to No. 4 mine. It is then hauled around a tram road of five miles by a large engine to No. 3 mine, where it is dumped into railroad cars and shipped over the Eckhart Branch of the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 26 men, worked 248 days and produced 25,240 tons of coal.

PHOENIX AND GEORGE'S CREEK COAL CO.

John L. Casey.....Superintendent.

Geo. McManus, Chas. Custer.....Mine Foreman.

Elkhart Mine is located on the west side of the George's Creek near Reynolds. It is a drift opening, working the Bakerstown or Barton four-foot coal seam, and is developed on the double entry system.

Ventilation is produced by a fan driven by an electric motor, and is conducted to the working faces by doors and stoppings. Ventilation is in good condition.

Drainage is difficult in sections. The roof as a rule is good, but requires a great deal of timbering.

The coal is blasted by powder, and is gathered and hauled to a side in the interior by mules. From there it is hauled to the outside and to the head of the plane by electric motors. It is then lowered to the tipple, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 82 men, worked 225 days and produced 41,907 tons of coal.

CUMBERLAND BIG VEIN COAL COMPANY.

John W. Kreitzburg.....Superintendent.

The Cumberland Big Vein Coal Co., Conway Mine No. 1, is located about one mile east of Eckhart. It is a drift opening, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, and conditions are favorable. There are numerous holes driven to the surface and around the outcrop, where the working faces are located.

Drainage is by natural means and is found in a good condition. The roof is very dangerous and requires a great deal of timbering to keep it safe.

The coal is gathered in the interior and conveyed to the outside by horses. It is then dumped into motor trucks and hauled to the railroad.

During the year 1918-19 they employed 24 men, worked 222 days and produced 11,669 tons of coal.

CALEDONIA COAL COMPANY.

Charles O. Enos.....Superintendent.
John Shuhart.....Mine Foreman.

Caledonia Mine is located on the west side of the George's Creek. The mine consists of four drift openings, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, by holes driven to the surface around the outcrop near where the working faces are located. Drainage is by natural means and ditches, and is generally good. The roof is of a very dangerous character, being near the outcrop and, therefore, requires very careful attention.

The coal is gathered in the interior and conveyed to side tracks on the outside by horses. From there it is hauled two and one-third miles to the head of the plane by locomotive. It is then lowered over a plane and dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 Big Vein, Tyson and Bakerstown employed 110 men, worked 241 days and produced 90,490 tons of coal.

MIDLOTHIAN COAL COMPANY.

Wm. Walters.....Superintendent.

Midlothian Coal Co. is located at Midlothian, about two miles west of Frostburg. The mine consists of five drift openings, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means and is found to be very satisfactory. Drainage is generally good and is by natural means and ditches. The roof is of a dangerous character, being

near the outcrop, and therefore, requires very careful timbering. The timbering is carefully looked after.

The coal is mined by pick, blasted by black powder and is gathered in the interior and is hauled to the head of the plane by horses. From there it is lowered over three planes. It is then dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 30 men and produced 12,231 tons of coal.

MILLER & GREEN COAL COMPANY.

J. O. J. Green.....Superintendent.

Jas. Riggins.....Mine Foreman.

Miller & Green Coal Co. is located near Westernport and is a drift opening, working the Clarion or Parker seam of coal. It is developed by the double-entry system.

The ventilation is produced by a steam-driven fan and is conducted to the working faces by doors, stoppings, and is found to be generally good. Drainage is difficult and not at all times satisfactory, owing to the level condition of the mine.

Roofing is good and timbering carefully looked after.

Coal is mined by pick, blasted by black powder, and is gathered on the interior and hauled to the dump by mules, where it is dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 the mines have been electrified and machinery installed.

WESTERNPORT COAL COMPANY.

Thomas M. Daily.....General Manager.

The Westernport Mine is located at Franklin. It is a drift opening, working the Lower Kittanning coal seam.

Ventilation is produced by electric fan and is conducted to the working faces by doors and brattices. Drainage is difficult in sections, however, it is kept in good condition by electric pumps.

The coal is gathered in the interior and hauled to the outside by mules and dumped into conveyors. It is then dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918-19 they employed 40 men, worked 207 days and produced 29,108 tons of coal.

CLAIR COAL COMPANY.

V. H. Burtner.....General Manager.

Penn Mines No. 1, 2, 3 and 4, are located on the west side of

the George's Creek, near Franklin. They are drift openings and working the Bakerstown-Barton four-foot coal seam, and are developed on the double-entry system.

The ventilation is well distributed, being produced by a large steam fan, and the air conditions are good. Drainage is by natural means and ditches.

The coal is gathered in the interior and hauled to the head of the plane by mules, where it is lowered 800 feet to the dump.. It is dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 65 men, worked 215 days and produced 11,400 tons of coal.

NEW YORK MINING COMPANY.

S. J. Alden.....Superintendent.

The New York Mining Company is operating several mines in Allegany County, working the Pittsburg or Big Vein and Tyson seam of coal. The mines are located about two miles northeast of Frostburg, on the Cumberland and Pennsyllvania Railroad.

Union Mine No. 1 is located near Allegany, on the west side of Jennings Run, and is reached by a short branch road of the Cumberland and Pennsylvania Railroad. It is a drift opening, working the Pittsburg or Big Vein seam of coal, and is developed on the double-entry system.

Ventilation is produced by a 16-foot fan driven by motor. The air current is found satisfactory.

Drainage is kept in good condition by ditches.

The coal is undercut by two Sullivan short wall chain machines and pick. It is gathered and hauled to side tracks in the interior by horses, from where it is taken to the dump by motor, dumped on a shaker, then to picking table, and finally dumped into railroad cars for shipment.

During the year 1918 they employed 132 men, worked 174 days and produced 69,690 tons of coal.

NEW YORK MINING COMPANY.

Union Tyson Mine No. 1 is a drift opening, working the Sewickley or Tyson seam of coal, and is developed on the double-entry system. The ventilation is produced by a large stack, and the air current is conducted to the working face by means of doors and brattices, and is found good.

Drainage is kept in a satisfactory condition by ditches.

The coal is gathered in the interior of Mine No. 1 by mules and hauled to the head of the plane. It is then dumped into railroad cars and is shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 20 men, worked 184 days and produced 7,058 tons of coal.

NEW YORK MINING COMPANY.

Union Mine No. 2 is located on the main line of the Cumberland and Pennsylvania Railroad. It is a drift opening, working the Pittsburg or Big Vein coal seam. It is developed and opened up on the double-entry system.

The ventilation is produced by a motor-driven fan and is conducted to the working face in a lawful manner.

The roof in some sections of the mine is very bad and requires very careful timbering to keep it in a safe condition. The drainage is fairly good.

The coal is gathered in the interior and hauled to the dump by horses. It is then dumped on a shaker, from there to a picking table, and then loaded on railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 53 men, worked 204 days and produced 30,520 tons of coal.

MT. SAVAGE & GEORGE'S CREEK COAL COMPANY.

C. Roberts.....Superintendent.
Harry Retzor.....Mine Foreman.

Mine No. 1 is located at the George's Creek Village, on the main line of the Cumberland and Pennsylvania Railroad. It is a drift opening, working the Brookville or Bluebaugh coal seam.

Ventilation is produced by an air shaft sunk 204 feet. The air current is conducted to the working faces by doors, brattices and stoppings. Drainage is difficult, but is kept in good condition by means of ditches and pumps. The roof is good and timbering is well looked after.

The coal is gathered and hauled to the outside over a short tram road to the tipple by mules. It is then dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 90 men, worked 241 days and produced 44,356 tons of coal.

THE GEORGE'S CREEK-PARKER COAL COMPANY.

J. W. P. Somerville.....Superintendent.
F. C. Myer.....Mine Foreman.

Mine No. 1 is a drift opening, working the Bond coal seam, and is developed on the double-entry system.

Ventilation is produced by a seven-foot fan, driven by a steam engine. The air current is conducted to the working faces by ap-

proved doors and brattices. Drainage is by natural means and ditches. Roof is good and timbering carefully looked after.

The coal is undercut by machine and also by pick. It is gathered and hauled to a side track in the interior by mules; from there it is conveyed to the outside and over a short tram road to the tipple by electric motor. It is then dumped on a picking table and conveyed to railroad cars by motor. It is then shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 50 men, worked 243 days and produced 40,056 tons of coal.

McKEE COAL COMPANY.

James Jenkins.....General Manager.

McKee coal mine is located one and one-half miles west of Carlos Junction. There are two openings, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, and the conditions are favorable for this means of ventilation, as there are numerous holes driven to the surface and around the outcrop near the working faces. Drainage is by natural means and is found in good condition. The roof requires a great deal of timbering, being near the outcrop.

The coal is gathered and hauled by horses to the outside and over a tram road to the head of the plane. It is then lowered over two planes, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 105 men, worked 290 days and produced 37,929 tons of coal.

CUMBERLAND & WESTERNPORT ELECTRIC RAILWAY CO.

Robert Harvey.....General Manager.

Reynolds Mine is located at Reynolds. It is a drift opening, working the Upper Freeport seam of coal, and is developed on the double-entry system.

Ventilation is produced by a motor-driven fan. The current is conducted to the working faces by brattices, and is in a satisfactory condition. Drainage is very difficult, owing to the level condition of the mine. The roof requires a great deal of timbering to keep it in a safe condition.

The coal is mined by pick, blasted by black powder and is gathered in the interior and hauled by mules to the Cumberland and Westernport Electric Railroad plant, and the output is used by this plant.

During the year 1918-19 they employed 4 men, worked 300 days and produced 4,485 tons of coal.

WEST VIRGINIA PULP & PAPER COMPANY.

W. E. Brown.....Superintendent.
Henry Biggs, P. H. Brown.....Mine Foremen.

Devon Mine is located at Luke, on a branch of the Western Maryland Railroad. It is a drift opening, working the Davis six-foot seam, and is developed on the double-entry system.

Ventilation is produced by a fan driven by an electric motor, and is conducted to the working faces by doors and stoppings. The air current is found in a satisfactory condition. Drainage is difficult in some sections, but is kept in a lawful condition by electric pumps. The roof requires a great deal of timbering, which is always attended to promptly.

The coal is gathered to side tracks in the interior by mules, from there it is hauled to the head of the plane by two motors, where it is lowered to the dump. The output from this mine is used by the West Virginia Pulp and Paper Mill at Luke. The main heading is illuminated with electric lights.

CHAPMAN COAL COMPANY.

John D. Frenzel.....Superintendent.
A. L. Frenzel.....Mine Foreman.

Chapman Mine is located at Barton on the west side of the George's Creek. It is a drift opening, working the Bakerstown or Barton four-foot seam of coal, and is developed on the double-entry system.

Ventilation is produced by a fan driven by a natural gas engine. It is conveyed to the working faces by doors and stoppings, and the air current is generally in a good condition. Drainage is by natural means and ditches. The roof is of the usual character overlying the Bakerstown seam.

The coal is gathered and hauled to the head of the plane by mules. It is then lowered to the tipple, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 169 men, worked 325 days and produced 69,850 tons of coal.

GREEN COAL MINING COMPANY.

Robert L. Green.....Superintendent.

The Moscow Mine No. 1 is located on the east side of the George's Creek, at Barton. It is a drift opening working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, by holes driven to the surface around the outcrop near where the working faces are located. Drainage is by natural means and ditches, and is generally good. The roof requires a great deal of timbering to prevent falls of coal.

The coal is gathered and hauled to the head of the plane by horses. It is then lowered over a plane and dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 20 men and produced 9,006 tons of coal.

MARYLAND COAL COMPANY.

Elkins Read ..... Superintendent.

The Maryland Coal Company is located on the west side of the George's Creek at Lonaconing. They are operating several mines, working the Pittsburg or Big Vein, Tyson, Waynesburg and Freeport seams of coal.

Tyson Mine No. 1 is located on the west side of George's Creek at Lonaconing. It is a drift opening, working the Sewickley or Tyson coal seam, and is developed on the double entry system.

Ventilation is produced by a motor-driven fan. The air current is conducted to the working faces by overcasts, doors and brattices, and is found in a satisfactory condition.

Drainage is difficult, but is kept in a lawful condition by ditches and pumps. The roof is good and timbering well looked after.

The coal is gathered and hauled by mules to side tracks in the interior; from there it is conveyed by motor to the tipple, dumped into railroad cars and shipped over the Western Maryland Railroad.

Big Vein Mine consists of two openings known as No. 10 and 12, working the Pittsburg or Big Vein coal seam.

At No. 10 the ventilation is produced by natural means and the air conditions are good. It is conducted to the working faces by doors and brattices. The drainage is by natural means and is found good.

At No. 12 the ventilation is produced by a motor-driven fan, and is conducted to the working faces by doors and brattices, and is found in a lawful condition. The drainage is by pumps and ditches and is very difficult. The roof requires a great deal of timbering.

The coal is gathered and hauled to the outside by horses, from there it is conveyed over a tram road to the tipple by an engine, dumped into railroad cars and shipped over the George's Creek Division of the Western Maryland Railroad.

ALLEGANY COAL COMPANY.

E. J. Roberts ..... General Manager.

Tacoma Mine is located on the west side of the George's Creek

at Franklin. This mine is a drift opening, working the Lower Kittanning or Davis six-foot coal seam.

Ventilation is produced by furnace and by several openings. The air current is conducted to the working faces by doors and stopping, and is found in a good condition. Drainage is by natural means and is generally good. The roof is of a dangerous character and requires a great deal of timbering.

The coal is gathered in the interior and hauled from the mines to the tipple by mules. It is then dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 40 men, worked 180 days and produced 37,166 tons of coal.

HOFFA BROS. COAL COMPANY.

William Hyde, Sr.....Superintendent.

Potomac Mine is located in Barton. This mine consists of 11 drift openings, working the Pittsburg or Big Vein coal seam, and is developed on the single-entry system.

Ventilation is produced by natural means, and the conditions are favorable. The drainage is also by natural means, and is in satisfactory condition.

The coal is gathered and hauled from the interior by mules and over a tram road 5,000 feet long to the head of the plane. It is then lowered over four planes, hauled over a tram road by a 17-ton steam engine, dumped intot railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 116 men, and produced 80,210 tons of coal.

GEORGE'S CREEK COAL COMPANY.

William F. Coale.....General Manager.

J. R. Hamilton.....Superintendent.

George's Creek Mine No. 1 is located on the west side of the George's Creek near Lonaconing. There are two openings, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by holes being driven to the surface around the outcrop and near where the working faces are located, and is found in a good condition.

Drainage is by ditches and is satisfactory. The roof is of the usual character, and requires a lot of attention.

The coal is gathered in the interior and hauled over a tram road to the tipple by horses and dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918, they employed 64 men, worked 251 days and produced 45,163 tons of coal.

GEORGE'S CREEK COAL COMPANY.

George's Creek Mine No. 2 is located on the east side of the George's Creek, near Lonaconing. It is a drift opening, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by holes being driven to the surface and around the outcrop, near where the working faces are located. For this system of ventilation the conditions are good.

Drainage is by means of ditches and is in fairly good condition. The roof is of a dangerous character and requires a good deal of timbering.

The coal is gathered and hauled over a short tram road to the tipple, where it is dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

GEORGE'S CREEK COAL COMPANY.

George's Creek Mine No. 3 is located on the west side of the George's Creek, near Lonaconing. It is a drift opening, working the Sewickley or Tyson coal seam, and is developed on the double-entry system.

Ventilation is produced by a fan, driven by an electric motor. The air current is conducted to the working faces by overcasts, doors and stoppings, and is generally good.

Owing to the level condition of the mine the drainage is very difficult. The roof is good and the timbering is well looked after.

The coal is gathered and hauled to a side track in the interior by mules, from where it is conveyed to the outside and over a short tram road to the tipple by an electric motor, dumped into railroad cars and shipped over the George's Creek Division of the Western Maryland Railroad.

GEORGE'S CREEK COAL COMPANY.

George's Creek Mine No. 4 is located two miles south of Lonaconing. It is a drift opening, working the Upper Sewickley or Tyson coal seam, and is developed on the double-entry system.

Ventilation is produced by a fan driven by an electric motor and is conducted to the working faces by overcasts, doors and stoppings. Drainage is by natural means and ditches, and is generally good.

The roof is in good condition and is generally found good.

The coal is gathered and hauled to the side tracks in the interior by mules, from where it is conveyed to a short tram road and then to the tipple by motor. It is then dumped into railroad cars and shipped over the Western Maryland Railroad.

During the year 1918 they employed 67 men and produced 203,556 tons of coal.

MIDLAND MINING COMPANY.

J. W. P. Somerville.....Supt. and General Manager.

Neff Run Mines is located near Midland. It has five openings working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, by holes being driven to the surface around the outcrop near the working faces. Drainage is by natural means and ditches and generally good. The roof is dangerous, being near the outcrop and therefore requires a great deal of timbering. However, it is kept in a safe condition.

The coal is gathered in the interior and hauled over a tram road to the head of a plane by horses. It is then lowered 800 feet to the tipple, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 62 men, worked 250 days and produced 63,213 tons of coal.

MOSCOW-GEORGE'S CREEK COAL COMPANY.

J. W. P. Somerville.....Superintendent.

Moscow No. 2 is located near Barton, on the west side of the George's Creek. There are three drift openings, working the Pittsburg or Big Vein coal seam.

The ventilation is produced by natural means, by numerous holes driven to the surface and around the outcrop near where the working faces are located. Conditions are good for this system of ventilation. Drainage is by natural means and ditches. The roof is of a very dangerous character and requires a great deal of timbering.

The coal is gathered in the interior by horses and hauled to the head of the plane. It is then conveyed over three planes and a tram road, and is dumped in conjunction with the output from Mine No. 3.

Mine No. 3 is located on the west side of the George's Creek near Barton. It is drift opening working the Bakerstown, better known as the Barton, four-foot seam of coal.

Ventilation is produced by an electric fan, and the air conditions are good.

The coal is gathered and hauled from the interior to the tipple by mules from where it is dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918, they employed 61 men, worked 236 days and produced 41,592 tons of coal.

ALLEGANY BIG VEIN COAL COMPANY.

James Hanna.....Superintendent.

The Allegany Coal Company Mine is located near Allegany. It is a drift opening, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means and the conditions are good for this kind of ventilation. Drainage is by natural means The roof is dangerous and requires a great deal of timbering to keep it in a safe condition.

The coal is gathered and hauled to the outside by horses loaded into railroad cars, and shipped over the Western Maryland Railroad.

During the year 1918 they employed 26 men, worked 215 days and produced 10,796 tons of coal.

FROSTBURG BIG VEIN COAL COMPANY.

Charles S. Jeffries.....Manager.

The Frostburg Big Vein Coal Company Mine is located near Allegany, on the west side of Jennings Run.

The mine has eight drift openings, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, from holes being driven to the surface. Drainage is by natural means, and is in good condition.

The coal is gathered and hauled from the interior by horses to the head of the plane, where it is lowered 700 feet and dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 812 men, worked 255 days and produced 39,615 tons of coal.

H. G. EVANS COAL COMPANY.

H. G. Evans.....Manager.

Borden Mine is located at Borden, near Frostburg. There are two drift openings, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, and conditions are good for this kind of ventilation as there are numerous holes driven to the surface around the outcrop, where the working faces are located. Drainage is in a lawful condition by natural means. The roof is of a dangerous character, and requires a great deal of timbering to keep it safe.

The coal is gathered and hauled to the outside by horses, loaded into railroad cars and shipped over the Western Maryland Railroad.

WM. H. BARNES & SONS FUEL MINE.

The Barnes Mine, located at Midlothian, is a drift opening, working the Pittsburg or Big Vein coal seam. During the year 1918 they produced 760 tons.

SAMUEL SMITH FUEL MINE.

The Smith Mine is located at Midlothian and is a drift opening, working the Pittsburg or Big Vein coal seam. During the year 1918 they produced 2,760 tons of coal.

SOLOMON BRODE FUEL MINE.

The Brode Mine is located at Frostburg, Md., and is a drift opening, working the Pittsburg or Big Vein coal seam. During the year 1918 they produced 2,020 tons of coal.

EAGAN MINING COMPANY.

The Eagan Mining Company is located at Midland and is a drift opening working the Pittsburg or Big Vein coal seam. During the year 1918 they produced 2,115 tons of coal.

FITZPATRICK COAL COMPANY.

John W. Fitzpatrick.....Superintendent.

Pekin Mine No. 1 is located on the west side of the George's Creek at Pekin. It is a drift opening, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by holes being driven to the surface and around the outcrop, where the working faces are located. Drainage is by natural means and ditches. The roof is of the usual character, and requires a great deal of timbering to keep it in a safe condition.

The coal is gathered in the interior and hauled to the head of the plane by horses. It is lowered 1,500 feet and dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they produced 14,115 tons of coal.

SULLIVAN BROS. COAL COMPANY.

John A. Sullivan.....Superintendent.
John P. Barry, Bernard Byrnes.....Mine Foremen.

Sullivan Mine No. 1 is located near Eckhart. It is a drift opening working the Upper Sewickley, better known as the Tyson coal seam, and is developed on the double entry system.

Ventilation is produced by a large fan, driven by gas, and is found in good condition. Drainage is by natural means and ditches and is found in a satisfactory condition.

The coal is gathered and hauled to a side track in the interior by mules; from there it is conveyed to the head of the plane by a five-ton electric motor, lowered over a plane 1,200 feet, dumped into railroad cars and shipped over the Eckhart Branch of the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 104 men, worked 245 days and produced 54,807 tons of coal.

SULLIVAN BROS. COAL COMPANY.

Sullivan Mine No. 2 is located at Carlos. This mine consists of five drift openings and one slope opening, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by numerous holes driven to the outside around the outcrop near where the working facec are located. and is found in a favorable condition. Drainage is by natural means and ditches. The roof is of a dangerous character, being near the outcrop, and, therefore requires a great of timbering to keep it in a safe condition.

The coal is gathered in the interior and hauled to the outside by horses; from there it is lowered over a plane to the dump. It is then dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 78 men, worked 250 days and produced 51,750 tons of coal.

PIEDMONT & GEORGE'S CREEK COAL COMPANY.

Washington No. 1.

Patrick Brophy	Superintendent.
William P. Brophy	Foreman.
John P. Faherty	Foreman.
William Harper	Froeman.

Washington Mine No. 1 is located on the west side of the George's Creek, near Franklin. It is a drift opening, working the Lower Kittanning seam of coal, and is developed on the double-entry system.

Ventilation is produced by a five-foot fan, driven by an electric motor. The air current is conducted to the working faces by doors and stoppings, and I have always found it in a satisfactory condition. Drainage is by means of holes drilled into the Lower Kittanning and by pumps. Drainage is very difficult throughout this mine; however, it is kept in a lawful condition. The roof is good, with a few exceptions.

The coal is cut by two Jeffrey Arc-Wall machines and is gathered and hauled to a side track in the interior by motor, and dumped on a screen, from where it is loaded into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 70 men, worked 272 days and produced 46,680 tons of coal.

PIEDMONT & GEORGE'S CREEK COAL COMPANY.

Washington Mine No. 2.

Martin Condry.....Superintendent.
Oscar Huber .....Foreman.

Washington Mine No. 2 is located at Eckhart. It is a drift opening, working the Upper Sewickley or Tyson seam, and is developed on the double entry system.

Ventilation is produced by an eight-foot fan, driven by steam, and is generally good. Drainage is good except in a few sections. The roof is good and the timbering is well looked after.

The coal is mined by pick and is gathered and hauled to the dump by a 10-ton electric motor. It is then dumped into railroad cars and shipped over the Eckhart Branch of the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 62 men, worked 281 days and produced 42,125 tons of coal.

PIEDMONT & GEORGE'S CREEK COAL COMPANY.

Washington Mine No. 3.

Patrick Brophy .....Superintendent.

Washington Mine No. 3 is located on the west side of the George's Creek, near Franklin. It is a drift opening, working the Upper Kittanning or Davis six-foot coal seam, and is developed on the double-entry system.

Ventilation is produced by a five-foot fan, driven by motor. The air current is found in a good condition. Drainage is difficult in sections, but is kept in a lawful condition by ditches and pumps. The roof is good, and the timbering is well looked after.

The coal is gathered and hauled to the side tracks in the interior by mules; from there is it conveyed to the tipple by gasoline motors and dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 5 men, worked 246 days and produced 7,013 tons of coal.

PIEDMONT & GEORGE'S CREEK COAL COMPANY.

Washington Mine No. 5.

Patrick Brophy ..... Superintendent.
M. T. O'Rourke ..... Foreman.
John D. Wallace ..... Foreman.

Washington Mine No. 5 is located on the west side of the George's Creek, near Franklin. It has four drift openings, working the Bakerstown or Barton four-foot seam, and is developed on the double entry system.

Ventilation is produced by a 10-foot fan, driven by steam. The air current is conducted to the working faces by doors and brattices and is found in a good condition. Drainage is by natural means. The roof is not so good as the average overlying the Bakerstown seam, but the timbering is well looked after.

During the past year the company has built new houses for their employees, consisting of four, five and six rooms. They are of first class material throughout. The streets have been paved with concrete and concrete walks made around each house. Each house is wired for electric light, and the city water is on the street. In addition to this the streets and crossings are well lighted. Everything is modern and up to date.

Two new sub-stations of 150 K. W. have been installed, one at Mine No. 1 and one at Mine No. 5. They furnish power to operate fans, pump, haulage and gathering motors.

Mine No. 5 is a machine mine, all coal being cut by Sullivan short-wall machines. This method makes good rough coal. Each place is undercut five feet, and each miner has two places of his own, there is no crowding. In this way the men have no smoke to work in, the cars are placed up to the men with small gathering motors, which pushes them up to the breast of coal in many places. There has been an additional five-ton motor added to the haulage. since the last report.

The incline plane, which is 2,250 feet long, has been improved and made safe by putting an electric motor on the plane machine This has been a wonderful help in landing trips, and in making it safe for men and company.

During the year 1918 they emplyoed 70 men and produced 55,558 tons of coal.

UNITED BIG VEIN COAL COMPANY.

Harry W. Rowe ..... Superintendent.

United Big Vein Mine is located west of Mt. Savage. It consists of two drift openings, working the Pittsburg or Big Vein coal seam, and is developed on the double-entry system.

Ventilation is produced by natural means, and is found satisfactory. The current is conducted to the working faces by approved brattices and doors. Drainage is kept in a lawful condition by natural means and ditches. The roof is good and the timbering is well looked after.

The coal is gathered and hauled to the outside by mules. It is then conveyed over a tram road to the head of a plane by engine, then lowered over a plane to the dump, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

During the year 1918 they employed 64 men and produced 28,000 tons of coal.

MRS. JACOB MILLER FUEL MINE.

The Miller Mine is located at Lonaconing and is a drift opening, working the Pittsburg or Big Vein coal seam. During the year 1918 they produced 1,160 tons of coal.

STANTON & GEORGE'S CREEK COAL COMPANY.

Louis Stanton.....General Manager.

Stanton's Mine is located on the west side of Braddock's Run, one mile south of Clarysville, along the old National Road. It is a drift opening, working the Kittanning seam of coal.

Ventilation is produced by a 16-foot fan, driven by steam, and the air current is fairly good. Drainage is difficult in some sections. The roof which overlies the Kittanning in this section is above the average, and for this reason the timbering is sometimes neglected.

The coal is gathered in the interior and hauled to the head of the plane by mules and ponies. It is lowered 900 feet, dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

CLIFTON BIG VEIN COAL COMPANY.

Uriah Jones.....General Manager.

Clifton Big Vein Mine is located east of Frostburg, Md. It is a drift opening, working the Pittsburg or Big Vein coal seam.

Ventilation is produced by natural means, as there are numerous holes driven to the surface and around the outcrop near the working faces. Conditions are favorable for this system of ventilation. The roof is of the usual character, being near the outcrop, so therefore requires much timbering to keep it safe.

The coal is gathered and hauled to the outside by horses, loaded into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

BRAILER MINING COMPANY.

Wm. Hamilton.....General Manager.

Bald Knob Mine is located at Mt. Savage. It consists of four openings, working the Pittsburg or Big Vein coal seam. It is developed on the double-entry spstem.

Ventilation is produced by natural means and is conveyed to the working faces by doors and stoppings. The air conditions are good. Drainage is by means of ditches. The roof is good and the timbering well taken care of.

The coal is gathered and hauled to the outside by horses; from there it is conveyed over a tram road to the head of a plane. It is then lowered 4,500 feet to the tipple, from where it is dumped into railroad cars and shipped over the Cumberland and Pennsylvania Railroad.

NEW CENTRAL COAL COMPANY.

Alexander Adams.....Superintendent.

Koontz Mine No. 1 is located two miles south of Lonaconing. It is a drift opening working the Upper Sewickley or Tyson coal seam, and is developed on the double-entry system.

Ventilation is produced by an eight-foot fan, driven by steam, and is found in a good condition. Drainage is by means of ditches. The roof is good and the timbering well taken care of.

The coal is gathered to side tracks in the interior by mules, from where it is conveyed to the outside and hauled one mile to the head of a plane by rope and stationary engine. It is then lowered 1,100 feet and dumped into railroad cars and shipped over the Western Maryland Railroad.

GARRETT COUNTY MINES.

MONROE COAL MINING COMPANY.

Wm. H. Gibson.....General Superintendent.

Elk Run Mine No. 1 and 3 are located at Barnum, on the west side of the Potomac River, and on the main line of the Western Maryland Railroad. They are drift openings, working the Bakerstown or Barton four-foot and the Lower Kittanning or Davis six-foot seam of coal, and are developed on the double-entry system.

At Mine No. 1 the ventilation is produced by an 11-foot fan, driven by steam, and is generally good. The coal is gathered to a side track by mules, from there it is conveyed to the outside by gasoline motor and hauled over 600 feet of tram road to a dump,

which crosses the Potomac River. It is loaded into railroad cars and shipped over the Western Maryland Railroad.

Mine No. 3 is located directly above Mine No. 1, and is a drift opening, working the Bakerstown or Barton four-foot coal seam.

Ventilation is produced by a seven-foot fan, driven by compressed air. The roof is good and the timbering is well looked after.

The coal is gathered and hauled from the interior to the head of the plane by mules. It is lowered 1,225 feet and dumped into railroad cars in connection with the output of Mine No. 1.

During the year 1918 they employed 53 men, worked 220 days and produced 25,009 tons of coal.

DAVIS COAL & COKE COMPANY.

M. A. Stewart.....Superintendent.

The Kempton shaft of the Davis Coal & Coke Company is located in the southwest corner of Garrett County, Maryland. This is the shaft opening, working the Lower Kittanning coal seam.

The ventilation is produced by a Robinson fan and driven by an electric motor. It is conducted to the working faces by approved overcasts, doors and stoppings, and the air conditions are good. The roof is in good condition and the timbering is carefully looked after. Drainage is kept in a lawful condition by means of pumps.

The coal is undercut by three Goodman mining machines and also by pick. The coal is gathered and hauled to a side track in the interior by eight General Electric six-ton reel motors. From there it is hauled to the bottom of the shaft by two ten-ton motors. It is then raised 420 feet to the surface by an electric motor, and is dumped into a 600-ton steel bin. It is then dumped into railroad cars and shipped over the Western Maryland Railroad.

During the year 1918 they employed 148 men, worked 279 days and produced 160,987 tons of coal.

BLAINE MINING COMPANY.

George Boyd .....Superintendent.

G. L. Campbell.....Mine Foreman.

Blaine Mining Company is located at Potomac Manor, on the west side of the Potomac River, and on the main line of the Western Maryland Railroad.

Mines No. 1 and 2 are drift openings, working the Lower Kittatnning or Davis six-foot coal seam, and is developed on the double-entry system.

Ventilation is produced by a 12-foot fan, driven by steam. The air current is conducted to the working faces by doors and stoppings, and is found in a lawful condition.

Drainage is kept in a satisfactory condition by natural means and ditches. The roof is of the usual character overlying the Lower Kittanning seam in this region, and the timbering is well looked after.

The coal is gathered and hauled to a side track in the interior by mules and horses; from there it is conveyed to the outside and over 1,700 feet of tram road to the head of the plane by four electric motors. It is then lowered 900 feet to the dump and dumped on a 12-foot picking table, which conveys it to the railroad cars.

During the year 1918 they employed 147 men, worked 281 days and produced 118,051 tons of coal.

GARRETT COUNTY COAL MINING COMPANY.

Wm. H. Gibson.....General Manager.

Dodson Mine No. 5 is located at Dodson, on the northwest side of the Potomac River, and on the main line of the Western Maryland Railroad. It is a drift opening working the Upper Kittanning coal seam and is developed on the double-entry system.

Ventilation is produced by furnace, and is conducted to the working faces by doors and stoppings. It is sometimes unsatisfactory. Drainage is difficult owing to the level conditions of the mine. The roof is good and the timbering is well looked after.

The coal is gathered and hauled to a side track in the interior by mules, from where it is conveyed to the outside and over 3,000 feet of tram road by three gasoline motors to the head of the plane. It is then lowered 900 feet and dumped into railroad cars in conjunction with the output from Mines 1 and 3.

Dodson Mines No. 1 and 3 are located at Dodson on the northwest side of the Potomac River, and on the main line of the Western Maryland Railroad. They are drift openings working the Lower Kittanning coal seam, and are developed on the double-entry system.

Ventilation is produced by a 16-foot fan, driven by steam. It is conducted to the working faces by doors and stoppings.

The roof is of the usual character which overlies the Lower Kittanning seam, and therefore requires a great deal of timbering.

The coal is gathered and hauled to the side track in the interior by mules; from there it is conveyed to the outside and over 3,000 feet of tram road to the head of a plane by three gasoline motors.

It is then lowered 900 feet to the tipple, equipped with a 120-foot picking table and dumped into rairoad cars and shipped over the Western Maryland Railroad.

During the year 1918 they employed 200 men, worked 214 days and produced 105,433 tons of coal.

POTOMAC VALLEY COAL COMPANY.

Otis Abernathy ..... Superintendent.
Robert F. Pritts ..... Mine Foreman.

Peerless Mine is located one and one-half miles from Kitzmiller on the main line of the Western Maryland Railroad. There are two drift openings, working the Upper Freeport coal seam, and is developed on the double-entry system.

Ventilation is produced by a 12-foot fan, driven by natural gas engine and is found good.

Drainage is found in a satisfactory condition by means of pumps and ditchess. The roof is good and the timber is well looked after.

The coal is gathered and hauled to side tracks in the interior by mules and ponies; from there it is conveyed to the outside and over 1,000 feet of tram road to the head of the plane by two gasoline motors. It is then lowered to a bridge crossing the Potomac River and dumped into railroad cars.

During the year 1918 they employed 69 men, worked 203 days and produced 57,508 tons of coal.

Otis Abernathy ..... Superintendent.
Joseph A. Smith ..... Mine Foreman.

Louise Mine is located on the west side of the Potomac River at Chaffee on a spur off the main line of the Western Maryland Railroad. It is a drift opening, working the Lower Kittanning or Davis six-foot coal seam.

Ventilation is produced by furnace and conducted to the working faces by doors and stoppings, and is found in a satisfactory condition. The roof is good and the timbering is well looked after.

The coal is gathered and hauled by mules to the tipple, and is dumped into railroad cars and shipped over the Western Maryland Railroad.

During the year 1918 they employed 8 men, worked 198 days and produced 1,764 tons of coal.

HAMILL COAL & COKE COMPANY.

R. A. Smith ..... Superintendent.
W. D. Walker ..... Mine Foreman.

Hamill Coal & Coke Co., Mines No. 1 and 2, are located one mile southwest of Kitzmiller, on the main line of the Western

Maryland Railroad. It consists of two drift openings, working the Lower Kittanning or Davis six-foot coal seam.

Ventilation is produced by a 12-foot fan, driven by natural gas engine. It is conducted to the working faces by approved stoppings and doors, and is found to be good throughout. The Drainage is difficult, but is kept in a lawful condition by means of pumps and ditches. The roof is very dangerous and requires a great deal of timbering in order to prevent falls of rock. The timbering is well looked after.

The coal is mined by pick and gathered and hauled to a side track in the interior by mules; from there it is conveyed to the outside by a gasoline motor and dumped into a large storage bin. From there it is loaded into two buckets and is conveyed by aerial tramway across the Potomac River and finally dumped into railroad cars.

During the year 1918 they employed 115 men, worked 240 days and produced 112,000 tons of coal.

STANDARD COAL COMPANY.

R. L. Kight.....Superintendent.

Standard Coal Co. mine is located near Chaffee. It consists of six openings, working the Lower Kittanning or Clarion coal seams.

The ventilation is produced by natural means and is found to be satisfactory. Drainage is by natural means and is found satisfactory. The roof is good and the timbering is well looked after.

The coal is mined by pick and gathered and hauled to the dump by horses. It is then dumped into railroad cars and shipped over the Chaffee Branch of the Western Maryland Railroad.

During the year 1918 they employed 41 men, worked 266 days and produced 15,160 tons of coal.

HUBBARD COAL MINING COMPANY.

G. I. Shetting.....Superintendent.

Hubbard Coal Company is located on the main line of the Western Maryland Railroad. The mine is working the Lower Kittanning or Davis six-foot coal seam, and is developed on the double-entry system.

Ventilation is produced at No. 1 Mine by a 10-foot fan, driven by a six-ton Westinghouse electric motor. The air current is conducted to the working faces by doors and stoppings, and is found generally good. Drainage is in a satisfactory condition by natural means and ditches. The roof in No. 1 Mine is in a dangerous condition, and requires a great deal of timbering to keep it safe.

The coal is undercut by a C. E. Sullivan short wall chain machine and also by hand pick. It is gathered and hauled to a side track in the interior by mules; from there it is conveyed to the outside and over a tram road to the head of a plane by electric motor. It is then lowered 900 feet to a dump which crosses the Potomac River, and finally dumped into railroad cars and shipped over the Western Maryland Railroad.

CHAFFEE COAL COMPANY.

Sheridan Stottlemeyer ..... General Manager.

The Chaffee Coal Company is located at Vindex on a branch road one and seven-eights of a mile from the main line of the Western Maryland Railroad. It is a drift opening, working the Lower Kittanning or Davis six-foot coal seam, and is developed on the double-entry system.

Ventilation is produced by a 12-foot fan, driven by steam. It is conducted to the working faces and throughout the mine by approved and lawful means. The drainage is by natural means and ditches.

The roof is of the usual character overlying the Lower Kittanning seam, and is kept in good condition by proper timbering.

The coal is gathered and hauled to a side track in the interior by mules; from there it is conveyed to the head of the plane by rope haulage; it is then lowered 350 feet and dumped on a picking table from where it is conveyed to the railroad cars.

During the year 1918 they produced 98,000 tons of coal.

PATTISON & BRYDON COAL CO.

S. B. Brydon ..... Superintendent.

Mine No. 7 is located near Bloomington, and is drift opening, working the Lower Kittanning coal seam.

Ventilation is produced by furnace and is conducted to the working faces by brattices and doors. The air current is found satisfactory. Drainage is by natural means and is found in good condition. The roof is of the usual character overlying the Kittanning seam, and the timbering is carefully looked after.

The coal is mined by pick and is gathered and hauled from the interior to the outside by mules. It is then conveyed over a long tram road to the tipple by a steam locomotive, dumped into railroad cars and shipped over the Baltimore and Ohio Railroad.

PATTISON COAL COMPANY.

Russell Pattison ..... Superintendent.
Thos. P. Swam ..... Mine Foreman.

Pattison & Brydon No. 1 and 2 are located about one mile west

of Bloomington, Md., and on the main line of the Baltimore and Ohio Railroad. They are drift openings, working the Bakerstown or Barton four-foot and the Upper Kittanning coal seam.

In Mine No. 1, working the Bakerstown seam, the ventilation is produced by a steam-driven fan. It is conducted to the working faces by approved doors and brattices and found in a good condition. The drainage is by natural means and ditches. The roof is of the usual character and the timbering is well looked after.

The coal is mined by pick and is gathered and hauled to the interior by mules, and is conveyed over a tramway 1,400 feet long to the head of the plane. It is then lowered and dumped into railroad cars.

In Mine No. 2, working the Kittanning seam, the ventilation is produced by natural means, and is conducted to the working faces by means of brattices. The air current is satisfactory.

Drainage is by natural means and in good condition. The roof is good and the timbering is well looked after. The coal is gathered and hauled from the interior to the tipple, and is dumped into railroad cars and shipped over the Baltimore and Ohio Railroad.

During the year 1918 they employed 37 men, worked 156 days and produced 23,960 tons of coal.

BLOOMINGTON COAL COMPANY.

S. B. Brydon.....Superintendent.

Mine No. 7 is located near Bloomington, and is a drift opening, working the Lower Kittanning coal seam.

Ventilation is produced by furnace, and is conducted to the working faces by brattices and doors. The air current is found satisfactory. Drainage is by natural means, and is found in good condition. The roof is of the usual character overlying the Kittanning seam, and the timbering is carefully looked after.

The coal is mined by pick and is gathered and hauled from the interior to the outside by mules. It is then conveyed over a long tram road to the tipple by a steam locomotive, dumped into railroad cars and shipped over the Baltimore and Ohio Railroad.

J. M. KISNER FUEL MINES.

The Kisner Mine is located near Oakland, Md., and is a drift opening. During the year 1918 they produced 750 tons of coal.

OFFUTTS & SONS FUEL MINE.

The Offutt Mine is located at Oakland and is a drift opening. During the year 1918 they produced 300 tons of coal.

PENDERGAST & ASHBY FUEL MINE.

The Pendergast & Ashby Mine is located at Ottaway, Md., and is a drift opening. During the year 1918 they produced 8,225 tons of coal.

CLAY MINES.

UNION MINING COMPANY.

S. J. Aldon.....Superintendent.
Joseph Finzle.....Mine Foreman.

The Union Mining Company Fire Clay Mines are located about four miles west of Mt. Savage, on the Savage Mountain. They are drift openings working the clay seam, and are developed on the double-entry system.

Ventilation is produced by a six-foot fan, driven by a 15 h. p. motor. It is conducted to the working faces by doors and brattices. The air conditions are good. The drainage is by natural means and ditches, and is in a fairly good condition. The roof is of the usual character, which overlies the clay seam, and requires a great deal of timbering to prevent accidents from falls of roof.

The clay is drilled by a Sullivan jack-hammer drill, blasted by dynamite, and is gathered and hauled from the interior to the outside by mules; from there it is dumped into large cars and lowered down to a plane one mile long to the tram road two miles long, and hauled by a small locomotive engine to the yards in Mt. Savage, where it is prepared for the market.

During the year 1918 they employed 87 men, worked 224 days and produced 38,630 tons of clay.

THE BIG SAVAGE FIRE BRICK COMPANY.

Clarence Raley.....Mine Foreman.

The Big Savage Fire Brick Mines are located on the Big Savage Mountain, about three miles northwest of Frostburg. They are drift openings, working the clay seam.

Ventilation is produced by natural means and also by a heading driven through the Savage Mountain Fire Brick Miles to this mine. The air current is conducted to the working faces by approved doors and brattices. Drainage is by natural means.

The roof is of the usual character overlying the Savage clay seam, and requires a great deal of timbering to keep it in a safe condition. The timbering is well looked after.

The clay is drilled by hand and is gathered in the interior and is hauled to the head of the plane by mules. It is then lowered and dumped into large cars, and conveyed down the mountain a distance of two and one-half miles to the brick-yard and there prepared for the market.

During the year 1918 they employed 38 men, worked 280 days and produced 21,569 tons of clay.

SAVAGE MOUNTAIN FIRE BRICK COMPANY.

G. A. Schuckhart.....Superintendent.
Chas. Wolfe.....Mine Foreman.

The Savage Mountain Fire Brick Mine is located about three miles northwest of Frostburg. It is a drift opening working the fire-clay seam.

Ventilation is produced by natural means, by air holes being driven to the surface, also by heading being driven through to the Big Savage Fire Brick Mine.

Drainage is by natural means, and is very difficult. It is, however kept in good condition.

The roof is good and the timbering is well looked after.

The clay is gathered in the interior and hauled to the surface by mules. It is then conveyed over a long tram road, dumped into large motor trucks and wagons and is hauled to the yards in Frostburg, where it is prepared for the market.

During the year 1918 they produced 12,617 tons of clay.

ANDREW RAMSAY COMPANY.

Andrew Ramsay.....General Manager.

Maryland Mine is located two and one-half miles southwest of Ellerslie, and is a drift opening, working the clay seam.

Ventilation is produced by natural means and is found good. Drainage is by natural means and is a lawful condition. The roof is of the usual character which overlies the clay seam. It requires a great deal of timbering to prevent accidents. The timbering is well looked after.

The clay is gathered and hauled from the interior by mules, and is conveyed to the yard, where it is prepared for the market.

During the year 1918 they employed 48 men, worked 295 days and produced 3,133 tons of clay.

FULL UTILIZATION OF COAL.

The coal shortage which has caused much inconvenience and great suffering during the past year, and which still threatens the country, is securing not only Government regulation, but also Government attention to the supply, the use, the wastage and the possible conservation of coal. A recent publication from the division of mineral technology of the National Museum of the Smithsonian Institution furnishes interesting and valuable information on this subject.

During the year of 1917 the mines of the country produced 640,000,000 tons of all kinds of coal. Of this 90,000,000 tons or one-seventh, was anthracite, that is, hard coal. The other six-sevenths was mostly bituminous or soft coal, only a very small part of it being a lower grade, known as lignite or peat.

All coal is vegetable origin. Originally it was plants or trees which grew with tropical luxuriance in the warm, moist air of what geologists term the carboniferous—meaning coal producing-era in the earth's history. This era was long before man appeared upon the earth, and during it nature provided and stored up these immense quantitties of fuel for his future use when the wood of growing trees would no longer supply his needs.

Inasmuch as coal is derived from wood, it contains nothing that was not already in the wood. In fact, it lacks some of the ingredients, which were thrown off in the change from wood to coal. The growing plant contains a large proportion of water—the soft woods having more than the hard, and the seasoned less than the green. The next chief ingredient is carbon, which in a pure state appears in different forms charcoal, anthracite, graphite (used in lead pencils), and the diamond. Other ingredients are oil, condensed gases, acids and various chemicals. The variety of these chemicals and of their combinations is indicated by the vast number of products obtained from trees and plants. Not only the seeds and fruits, but the "sap" and fiber give evidence of the munificent provision of nature. Sugar, vinegar, alcohol, pitch, turpentine, gums, rubber, carboon, dyestuffs and medicines are among the treasures gathered in this great vegetable storehouse.

When wood is burned all these are consumed, passing off in smoke, or remaining in the "ash." Wood consumed by slow combustion, with the admission of but very little air, is transformed into charcoal. In this process all the constitutents of the wood are lost except the carbon and the ash. The production of charcoal is, indeed, analogous to the processes of nature in the formation of the coal beds.

First, by earthquakes and floods, the forests were overthrown and buried under clay and rocks and gravel. This occurred while the internal heat of the earth was much greater than it is at present; and so the vegetable mass was gradually charred and changed to coal. Where this process was longest continued under the greatest heat and pressure, all the gases, oils and chemicals were driven off, and only the pure carbon remained. This formed the anthracite, or hard coal. In the United States this anthracite is all within an area of about 500 square miles entirely in the State of Pennsylvania. The next grade of coal, where the heat and pressure had not been so great, is called bituminous. It is found in thirty States, although three-fourth of it is in Pennsylvania, West Virginia, Ohio, Indiana and Illinois. This coal varies in quality, ac-

cording to the amount of the gases, oils and other substances that remain in it. Some is much like the anthracite and is sometimes called semi-bituminous. The difference is due simply in the difference in amount of heat and pressure that was applied. It all, however, burns with a black smoke, a wastage of a valuable part of the coal.

Next comes the lignite and peat, which, having had much less heat and pressure, are only partly charred, and still contain much of the water originally in the wood. The lignite coals occur chiefly in the Dakotas, Montana, Wyoming, Colorado, Arizona, New Mexico,, Texas and Louisiana—geologically the youngest, as the Appalachians of Pennsylvania are the oldest, parts of the United States.

The amounts of these three kinds of coal still in the mines as estimated by geologists, are respectively: Anthracite, nineteen billion tons; bituminous, fifteen hundred billion tons; lignite, two thousand billion tons.

At the rate of consumption in the year 1917, the anthracite would last only 200 years, and the bituminous less than 3,000. But the consumption of coal will increase with the increase of population, and which is of equal importance, the cost of obtaining it will increase in much larger proportions. The problem of mining and transporting the fuel will become more and more difficult. Even now anthracite coal is cut off from the West, and each locality is restricted to the coal in its vicinity.

This brings up the question of the use of lignite and of the greater utilization of the bituminous coal. These questions chemists and mineralogists are endeavoring to answer. The most perfect clean burning and convenient form of coal is anthracite. As we have seen, nature prepared this from the original wood, taking it through the lignite and bituminous stages. Science has been able to imitate nature in this, as in many other respects. Our chemists can take wood, lignite or bituminous coal and from it form pure anthracite. To a certain extent the process has been made practical in the case of charcoal and coke—the former is obtained directly from wood and the latter from bituminous coal. Both these products are valuable in the industries for making iron and steel—every ton of iron requiring, on the average, a ton of charcoal or a ton and a half of coke. The growing scarcity of wood puts charcoal out of the question, and coke is too porous for practical use as fuel. But the demand for it in making iron and steel requires about one-sixth of the bituminous coal mined each year.

In the early years of making coke all the ingredients of the bituminous coal except the carbon were wasted, just as nature wasted them in producing anthracite. Now, however, in most instances they are saved—and they constitute about two-thirds of the en-

tire money value of the produce. Thus, from a ton—2,000 pounds —of bituminous coal there could, according to prices in 1915, be obtained 1,500 pounds of coke, worth $5; 10,000 cubic feet of gas worth $9.00; 22 pounds of ammonium sulphate, $61.00; 2½ gallons of benzol, 75 cents, and 9 gallons of tar, 24 cents—a total of $15.60—and the coal cost only $1.13, at the mine. If, instead of the porous coke, solid artificial anthracite is produced, every ton of bituminous coal will yield 1,500 pounds of this desirable fuel in addition to the 10,000 cubic feet of gas and other valuable substances. This result has been actually accomplished on the small scale, and chemists and metallurgists unite in the statement that there are no insuperable obstacles to extending it to all bituminous coal used. The installation of the retorts and machinery would, doubtless, be expensive, but the operation would be profitable, for the gas evolved would more than furnish the heat necessary for the transformation, and the excess would be used for industrial and domestic purposes. In fact, gas is a very clean, convenient and in every way desirable fuel. Its extensive use in the natural gas regions prove this. The great drawback to its general use in homes and industries has been its cost. But, under the condition suggested, its universal production from bituminous coal it is believed it could be furnished at a very low rate.

For, it must be remembered that what are termed the by-products in the manufacture of coke or coal gas are valuable in themselves. In fact, some of them seem almost indispensable. Not only is the ammonium sulphate an important ingredient of commercial fertilizers, but the pure ammonia obtained from it is essential in refrigerating or ice-manufacturing plants, and enters largely into chemicals and explosives. The benzol contains the terrible explosive, toluol, which has been found indispensable in making the death-dealing bombs used in the present war. The fearful destruction wrought at Halifax and in the factory at Syracuse, N. Y., by the accidental explosion of trinitoloul is evidence of its awful power. Besides benzol yields certain drugs and dyes, and can be used as a substitute for gasoline. The coal-tar products are also almost innumerable—medicines, solvents, aniline, dyes, oils, photographic developers and finally the residuum, which is used for roofing and road building. In fact, the valuable elements condensed in bituminous coal seem almost incredible. The pity of it is that when we burn it "raw," so to speak, not only do we waste a large part of this value, but the waste becomes a nuisance in the shape of smoke and fumes and dirt. The full utilization of the coal by the methods suggested would not only have a great money value, but would conduce to cleanlness, comfort and health.

With wood, because of its scarcity, out of the question, the two ideal fuels from the standpoint of cleanliness and convenience are anthracite and gas. The former, at present, is restricted to the

Atlantic States. Should its artificial production on a large scale be found practical, as there is every reason to believe there will be, it would also be available in the entire bituminous region. But, even in that case, there would be a vast amount of gas available, for in producing either anthracite or coke, 10,000 cubic feet of gas are evolved from every ton of bituminous coal.

Now gas as a fuel is both cleaner and more convenient than even anthracite. All it needs is the proper appliances for burning it. In stoves, ranges and open grates it is the ideal domestic fuel for cooking, warmth and comfort—no dust, no dirt, no ashes; it can be lighted instantly and regulated completely as to the amount of heat. If steam or hot-water heating or even hot air is desired, gas furnaces will heat the water or warm the air. Gas from the same mains will light the homes and offices. In industrial plants, whether operated by steam or electricity, gas fuel has the same advantages. With the furnaces properly constructed the heat is furnished steadily with self-regulation. No shoveling of coal or ashes and no stoking of the furnace are required. Almost literally, the fireman simply "presses the button" and strikes a match, and the gas "does the rest." By means of the internal-combustion engine power is obtained from gas directly without the intervention of steam, the gas being exploded alternately in each end of the piston. This is the engine used in gasoline-driven automobiles and airplanes, the gas being generated from the liquid as fast as it is used.

Three types of gas are obtained from coal; ordinary coal gas, distilled by heating bituminous coal in a retort, as in producing coke or anthracite; carbureted water gas, obtained by treating coke or anthracite with superheated steam, which completely dissolves the carbon, and producer gas, which results from treating bituminous or lignite coal with a mixture of air and steam. For lighting purposes some of these gases are sometimes mixed with gas obtained from oil. Usually the producer gas is made from mine waste, or low-grade lignite coals. It can, morever, be employed in smaller installations known as suction plants, in which the gas producer and gas engine are combined. It thus would be suitable for villages and rural neighborhoods. Its use is already established in Europe, where the refuse of the mines is utilized. This gas is particularly available in the lignite region. The United States Bureau of Mines has demonstrated that one ton of air-dried lignite will yield from 8,000 to 10,000 cubic feet of gas, 17 pounds of ammonium sulphate, 1 gallon of oil, 50 pounds of tar, and 1,200 pounds of anthracite or coke. As there are in the United States about two thousand billions tons of lignite lying near the surface and hence easily mined, it will be seen that vast possibilities open before the gas-fuel industry.

The Bureau of Mines has established beyond question that the production of gas for a general fuel is not feasible, but will prove profitable, even if the making of artificial anthracite on a large

scale were found impracticable. Gas can be transported through mains for from 200 to 300 miles. So the chief producing plants might be located near the coal mines and thus help solve the transportation problem. All locomotives could be, as many are now, equipped electrically, the electricity to be generated either by water power or steam, from gas-heated boilers.

Thus the gas and anthracite method of using coal for heating purposes, if universally adopted, would not only save at least a billion dollars a year now wasted, but would improve the health and comfort of our people by banishing forever the drudgery, the dirt, the smoke and the noxious vapors that now make life miserable in most of our cities. The scheme is not utopian. Science has proved that it can be carried out, the only question remaining is a business one of the best method of accomplishing the desired end.

For several years conditions in the coal industry have tended toward Government control. The war brought matters to a crisis and the control is now a fact. It is doubtful if it can ever be safely relinquished. More likely it will have to be extended to Government ownership. The heat and light of the entire nation, like the water, light and street cars of the cities, is a public utility which ought not to be entrusted to private competition or exploitations. The Government could establish the plants for the conversion of the crude coal into gas and anthracite, at such points as would be most advantageous, and could provide for the distribution of the gas to homes and manufactories by means that would insure a constant supply at reasonable standard prices, so that consumers would know on what to depend. The chief gas systems could reach all town dwellers, while the anthracite and the producer-gas installations would supply the rural homes.

By this means the "Full Utilization of Coal" would be realized throughout the Nation. Never again would there be a fuel famine; cleanliness, health and comfort would be everywhere promoted; billions of dollars now wasted would be saved, and all the people would share in the benefits—a consummation devoutly to be wished.

INSTRUCTIONS FOR FIRING SOFT COAL—COMBUSTION OF COAL.

It will be necessary first of all to give some of the chemical changes that take place when coal is being consumed so as to lay an intelligent foundation for what follows.

Combustion of coal is a chemical process, in which the combustible substance unites with the oxygen of the atmospheric air. The combustible part of coal consists mainly of carbon and hydrogen. Air is a mixture of gases, the two most important being nitrogen and oxygen. Only the oxygen, which forms about a fifth part of the volume of any given quantity of air takes part in the combustion; the nitrogen is inactive. Carbon and hydrogen are

not destroyed by burning, but are merely changed. The carbon form carbon dioxide (or black damp), and the hydrogen forms water vapor, which, like carbon dioxide, is a colorless and invisible gas. The weight of carbon in the carbon dioxide formed by burning coal is exactly equal to the weight of carbon in the coal burned; also, the weight of hydrogen in the water vapor is exactly equal to the weight of the hydrogen in the coal. The fact that carbon dioxide and hydrogen are invisible has made people think that combustion is complete destruction.

The coal and wood disappear as they burn and the resulting gases, the invisable products of combustion, pass away unnoticed.

When carbon burns completely, 12 pounds of carbon unites with 32 pounds of oxygen to form 44 pounds of carbon dioxide. When hydrogen burns completely 2 pounds of hydrogen combine with 16 pounds of oxygen to form 18 pounds of water vapor. As the oxygen of the air is mixed with four times its weight of nitrogen (5 pounds of air containing only 1 pound of oxygen), to burn pounds of carbon completely, requires 5 times 32, or 160 pounds of air. Similarly, to burn 2 pounds of hydrogen takes five times sixteen or 80 pounds of air. In reality for the complete combustion of carbon and hydrogen in coal it is necessary to supply somewhat more air than the above figures show. When a pound of carbon combines with oxygen and is completely burned to carbon dioxide the amount of heat produced is 14,500 heat units, called British thermal units (b. t. u.), but if there is not enough air supplied the carbon burns to carbon monoxide (or white damp), and the amount of heat generated is only 4,500 heat units per pound of carbon, or a total loss of exactly 10,000 heat units.

These figures will show conclusively the paramount importance of a sufficient supply of fresh air at all times so as to produce complete combustion. For any substance to burn two things are necessary: (1) the substance must be in contact with free oxygen, (2) while thus in contact the substance must be at least as hot as its ignition temperature. When a charge of fresh bituminous coal is spread over the fuel bed in a furnace, the coal is heated to about 2,400 degrees F. in from two to five minutes. This heating distills from the coal the combustible matter which the coal contains, and continues whether sufficient air is supplied or not; but to burn volatile matter completely air must be intimately mixed with it and the mixture kept above the ignition temperature, which is about 1,200 degrees F., or a dark red. The residue left after the distillation is ended is what is known as fixed carbon. It is mostly in the form of coke and is the chief constituent of the fuel bed. This coke burns completely, or partly, as it comes in contact with the air supplied through the bars of the grate. The more rapidfly the air is supplied the faster the coke burns, therefore, ...See Copy

FIRING SOFT COAL.

When bituminous coal is burned the best results are obtained if the fires are kept level and rather thin. The best thickness of the fires has been found to be from 5 to 10 inches, depending on the character of the coal used and the strength of the draft. The coal should be fired in small quantities and at short intervals. In firing endeavor to place the coal over any thin spots that may be in the fuel bed, as the rate of combustion is much faster in these places than in places wher the flow of air through the fuel bed is less. The cause of these thin places in different parts of the fuel bed may be the difference in the size of the coal, the fusing of the coal to a hard crust, or the accumulation of clinker on the grates. With small and frequent firings the fuel supply is at all times more nearly in proportion to the air supply, so that better and more complete combustion is thus obtained, and at the same time considerable fuel is saved.

If the coal that is being used has a tendency to fuse and form a crust at the surface of the fuel bed, this must be broken up and the coke thus formed leveled over the fuel bed. This is often the result when slag or large quantities of small coal is used ,and more skill is required in such cases to get the proper mixture of air for complete combustion. Where slag or small coal is used in large quantities a much stronger draft is required.

CLINKERING.

Anything that causes the ash in the coal to be heated to its fusion temperature causes clinker, and any coal will form clinker if the ash in it is so heated. The exact effect of each constituent on the melting point of ash is not yet definitely known, but it is certain that the nature of the atmosphere in which the ash is heated has a marked effect on the melting point.

For instance, if the ash be heated in an oxidizing atmosphere (an atmosphere that supplies oxygen), its melting point is higher than if the ash is heated in a reducing atmosphere (an atmosphere that removes oxygen), such as hydrogen or carbon monoxide. The difference between the melting point in an oxidizing atmosphere, and a reducing one is for some coals over 140 degrees C. or 261 degrees F. The ash of some coals is so fusible that it is difficult to burn it without heating it to its fusion temperature. However, with most of the coals mined in the United States this can be avoided by proper firing and care of the fire.

The most common cause of clinker are thick fire, excessive stirring of the fires, too much slag in the coal, burning coal in the ash pit, and the preheating of the air admitted under the grates.

REMEDIES FOR CLINKERING.

To prevent trouble from clinker the first and most important step should be to find if possible which of the above mentioned causes are responsible for the formation of it, then it will be a much easier matter to avoid or remove the cause.

The following general suggestions are given for the prevention of clinker troubles from ordinary causes:

Use thin fires and keep the fuel bed level by placing the fresh coal in the thin spots in the fire.

Avoid disturbing the fuel bed more than is absolutely necessary with the rake or poker.

Fire in small charges, thus reducing the formation of a crust on the surface of the fuel bed.

Be specially careful to use small charges if the coal contains much slag.

Avoid burning coal in the ash pit.

Keep the ash pit doors open at all times; regulate the draft with a damper.

If possible keep water in the ash pit at all times.

If not possible use any steam (either exhaust or live steam) that may be available, introducing it under the grates.

If the above rules are carefully observed, and carried out, there will be very little trouble from clinker with coal of average quality under ordinary circumstances.

ACCIDENTS FROM USING POWDER AND BLASTING.

In looking over a list of accidents that occur in the mines, it strikes me very forcibly that accidents that are occasioned by powder and blasts show a large percentage of fatalities that could easily be avoided if ordinary care and judgment were used.

It is a common occurrence in the mines to hear of men being killed or seriously hurt by a misfire, premature or delayed blast, the latter two being the largest factors that produce accidents from the use of powders.

But these are not the only causes that produce accidents of this class. Some are due to the misuse of powders, some are attributable to careless handling of powders by persons who know of the danger, who, for some unaccountable reason or contempt of the dangerous possibilities of the explosives, fail to exercise care and judgment while handling powder to perform their daily work. Ordinary care and judgment are essential for the well-being of the men who handle powder if they desire to continue to enjoy good health.

The men who are careless are not ignorant of the potential possibilities of black powder or high explosives, as they can see the effects and realize the amount of pressure and force that is neces-

sary to bring down and break up the coal, and blast the large amount of rock that is blown up in the mines every day. They are, therefore, more conversant with practical experience in the handling of powder and high explosives than any class of workmen in the various industries, with the possible exception of powder mill employes.

However, some of them handle powder and explosives with the utmost indifference, and very reckless disregard for danger, notwithstanding their knowledge to the contrary that too much care cannot be taken while handling so fickle a servant, and one that always demands the most strict attention from the user.

Some men who have a hearty respect for powder as presented to them from the business end of a firearm, or that which would be contained in a bomb or a hand grenade, think nothing of cutting a squib short, or walking up to a box containing powder or explosives with a lighted lamp on their head or smoking a pipe, or the same man, who rather than wait a minute, will walk up to the face of his place, without flinching, to see if a squib has missed and never think to draw a comparison between a charge of powder in a bore hole and a charge in the barrels of a gun.

A delay of a minute has many times caused an accident from blasts; many a man has lost his life because he delayed a minute in getting out of the way of a blast, having failed to give the squib the full length of the match. On the other hand, many accidents have been caused because the man failed to wait a minute for the blast to explode after reaching a place of safety; he has started to walk back to the face to investigate the delay and has been caught with the full charge and killed. So you can see it is possible to get it both ways, coming and going, while using explosive, and all for the small fraction of time equal to 60 seconds.

The miner should think before cutting that squib, think before taking that chance and walking back to the face to see if that hole has missed. Ask yourself this question: "Is it worth while?" If I win I gain or lose one minute, if I lose I am a dead one, or possibly blinded for life. No, that game is not worth the candle and you lose from both ends. Of what use is one minute on one side and death or possibly worse on the other? There is no middle course as I see it. The only thing to do is to play the game safe.

Then again we see the man who will attempt to fire more than one hole at a time. Does he know the danger? Yes, but from his actions he does not seem to realize it; to count his chances against disaster where, for the sake of a few minutes time at the most, he will run his chances of being shot and if not killed will possibly be crippled for life. It would take but a very little while longer to fire one hole at a time and be a whole lot safer.

But the careless man says: "I have fired more than one hole at a time for years and have never been hurt." That may be so, but he will probably do it once too often if he persists. And if he does

succeed in this dangerous practice, I would ask him: What do you gain? Is a few minutes time gained, worth a lifetime of regret if you fail and are caught with a blast and crippled?

Under this head might be mentioned accidents due to miners firing several holes at a time by the use of fuse, after tamping the holes and igniting the fuses which are cut at different lengths to cause the series of holes to be fired in rotation. Some of these men after reaching a place of safety, do not pay special attention to the number of reports of the shots as they explode, but keep on talking and depend on the reverberation of the shots attracting their attention. Many accidents have occured in this manner.

It is possible that the flying coal from one blast may cut the fuse on another and this blast failed to explode. The miner is then in a quandary as he does not know whether or not a hole has missed and it is not safe to go and see.

Or a miner in a place near by may fire a hole about that time and the chances are that a miner who was firing several holes may make a mistake and count it as one of his blasts, and thinking that all had gone off safely start to walk back to the face and be caught by the flying coal from a blast that in some manner had failed to go off at the time the miner thought it would.

We also find accidents do to the careless handling of powder and carelessness in keeping and storing it. a miner leaves his box open and possibly some boy goes to the miner's box for oil and ignites the powder and gets burned. Or possibly the miner is forgetful and gets hurt in the same manner. We know that it is not done willfully, but it is surely the height of folly to leave powder boxes open and unprotected. The men who make the powder and are supposed to know all about it dont take these chances. It only goes to show how simple an accident can happen and how easily it could be prevented by the exercise of a little thought.

Or another prolific source of accidents from explosives, the miner may have caps or detonators in his box and some one gets hold of them and attempts to see what they are made of. He usually finds that fulminate of mercury is a substance that is not to be pried into too closely.

The miner himself sometimes comes to grief through a too close acquaintance with this same explosive, instead of using the proper crimper to crimp the cap on the fuse, he sometimes uses his molars to crunch the cap into place. If he makes a slight error in the exact place where the pressure is to be applied to crimp the cap, he is liable to part with some very valuable teeth and possibly his jaw or head in a very great hurry.

It is known that sometimes miners have been injured by carrying caps in their squib boxes and the caps have exploded while the miner has been carrying them in his pocket in the squib box while performing his usual work, and has been severely injured by

coming in contact with some rock or bumping against the gob and causing them to explode. Or a man has been severely injured by bumping a squib box containing caps against a rail to get the caps out after they had become jammed by the box being somewhat flattened.

As to the misuse of powder, particularly high explosives in tamping and firing; we have all heard of accidents from explosions of powder due to improper tamping practices. A cartridge of black powder becomes jammed in a bore hole, and the miner takes a drill somtimes and attempts to pound it back with disastrous results.

Or in tamping high explosives he uses the scraper or a jumper. I have known of men who loaded a hole in the coal with dynamite, and then inserted the needle and tamped the hole with a drill in the same manner that black powder is tamped, and after tamping it tight clear to the mouth of the bore-hole, to have withdrawn the needle and placed a cap in which a squib has been inserted in the needle hole, light the squib and have fired the shot in that manner. The force of the squib pushed the cap back until it hit the powder and exploded the charge. Just imagine the danger of tamping that dynamite with a steel drill! It makes one shudder to think of the disastrous possibilities of such a dangerous practice.

Take again the method of handling and transporting powders. I have seen men come from the powder house in the morning with a box of dynamite on their shoulders, and on reaching the head of the shaft where possibly 150 men were waiting their turn to descend into the mines, take the box of powder off their shoulders and deliberately let it drop into an empty car that was set aside on the head of the shaft as a powder car. Can you imagine the scene if that powder had exploded hundreds of times with a good deal less provocation.

Just picture to yourself the possible destruction due to an explosion of 25 pounds of dynamite, when if it were possible to exert the explosive force of one pound of dynamite all in an upward direction, it would lift a weight of 13,000 pounds one foot high, or 25 pounds would lift a weight of 167.5 tons one foot high, or would be equal to 325,000 foot pounds

In the year 1916, in the Ninth Anthracite District, there were 2,975,617 pounds of black powder and high explosives used. Allowing 1½ pounds of powder to a hole, there were fired 1,983,744 blasts, to produce 2,904,891 tons of coal, or it took on an average 1.025 pounds of powder to produce one ton of coal.