

The total number of mines in the district in 1902 was 241; the total number of employes 4,268, and the total number of tons of coal produced was 2,413,463. For the year 1903 the total number of mines in the district was 243; the total number of employes 4,363 and the total output of coal 2,708,350 tons. Hancock and Schuyler counties show a decrease of 8,383 tons, leaving a net increase of 294,837 tons.

LITIGATION.

April 6, 1903, I entered suit against Edward Little, Peoria, for operating his Hilliard No. 1 mine without a certificated mine manager. The court found him guilty as charged, placing his fine at \$50 and costs, which he paid.

I also secured an injunction closing Little's Hilliard No. 2 mine, until such time when he would comply with my recommendations, to place the mine in lawful condition. This injunction was in force until June 1, 1903.

DOGS EMPLOYED IN MINES FOR HAULING CARS.

In McDonough county mines 31 dogs are employed for drawing empty and loaded cars of coal to and from the mines, to the bottom of the shaft or to the mouth of the drifts.

On one of my visits to the mine of Rippetoe and Rundle, at Colechester, I was very much interested in observing the intelligence exhibited by one of these animals. The driver with his dog was returning from the bottom of the shaft, the dog drawing an empty car, on arriving at the summit of the hill, the dog, without any instruction, jumped into the car and rode with the driver down the incline to the level below, arriving at the bottom the dog jumped out of the car and pulled it up the grade on the opposite side to the working face.

I am unable to classify the different kinds of dogs that are in use at these mines. Under the head of haulage in the mines (page 127) is shown a mastiff hitched to a car of coal, which it has just drawn out of the mine.

I do not esteem so highly, the value of dogs, in consideration of their mere usefulness to the miner or to the operator, as I do other domestic animals: the horse, pony and mule; yet the dog to a greater degree beyond that of any other animal, has become the humble friend and companion of man, seeming actually to have knowledge to be delighted with the joys, or, to sympathize in the sorrows, of his master. On this account it is, that he is alike "The pampered minion of royalty and half starved partaker of the beggar's crust."

POWDER EXPLOSION AT ATHENS.

In company with Richard Newsam, president of the State Mining Board, G. R. Charlton, Menard county mine inspector, Thomas Hannah, former county mine inspector, with John Garrity, mine manager and Moses Cooper, mine examiner of the Athens Coal company's mine, I made an inspection of the mine, operated by the Athens Coal Mining company, in which six miners

lost their lives on the morning of March 23, 1903, by an explosion of powder. Mr. Newsam and myself were the first to arrive at the face of the workings, where the men were killed.

Our investigation there showed that six shots had been fired in the tenth south entry, also in a cross-cut, which was being made between the ninth and tenth south entries; the latter from the tenth south entry side. Three shots had been fired in the tenth south entry and three in the cross-cut. One shot in the cross-cut had blown through into the ninth south entry.

From the testimony given by Mr. Weston it was learned that this particular shot in the cross cut had been prepared on Friday, March 20, three days previous to the explosion; that he, Weston, had assisted Fred Impkey, one of the killed, to charge and tamp this shot, Friday night, and had left Impkey to fire it, and he supposed Impkey did fire it at that time. This shot in the cross cut had been drilled to within a few inches of being through into the ninth south entry; the length of the drill hole was 7½ feet; the shot did not blow the tamping, and enabled us to measure the length of the hole, which had contained powder, also to measure the length of the tamping, and make an estimate of the amount of powder which had been used in preparing this shot.

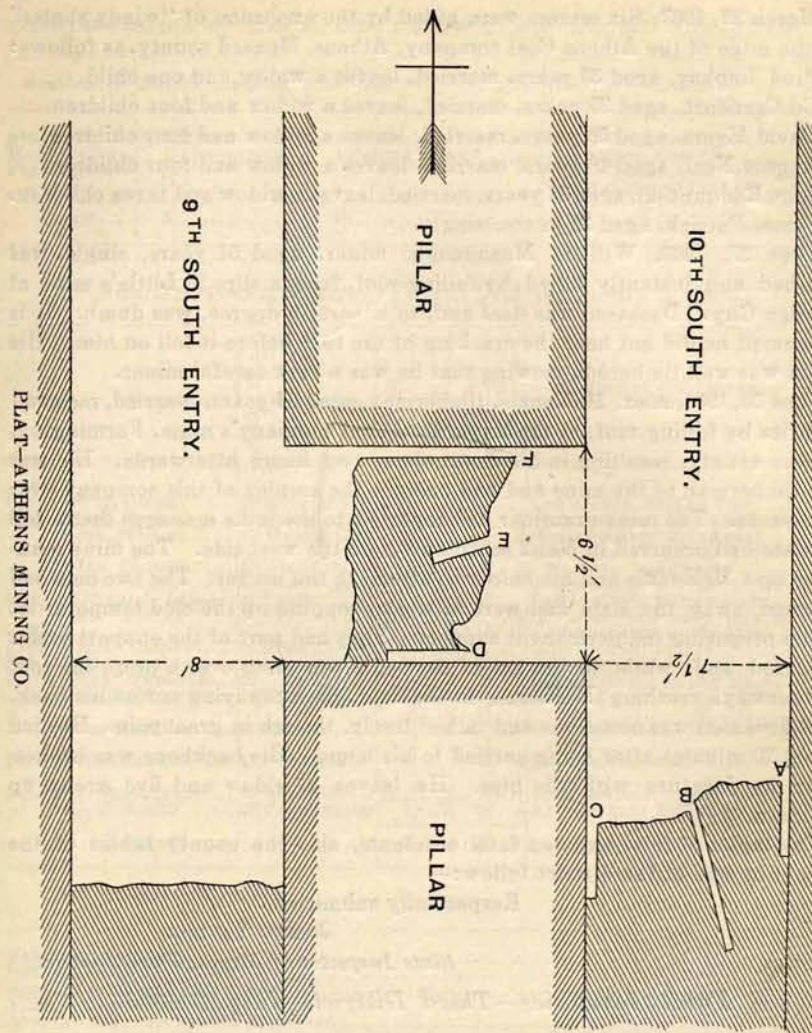
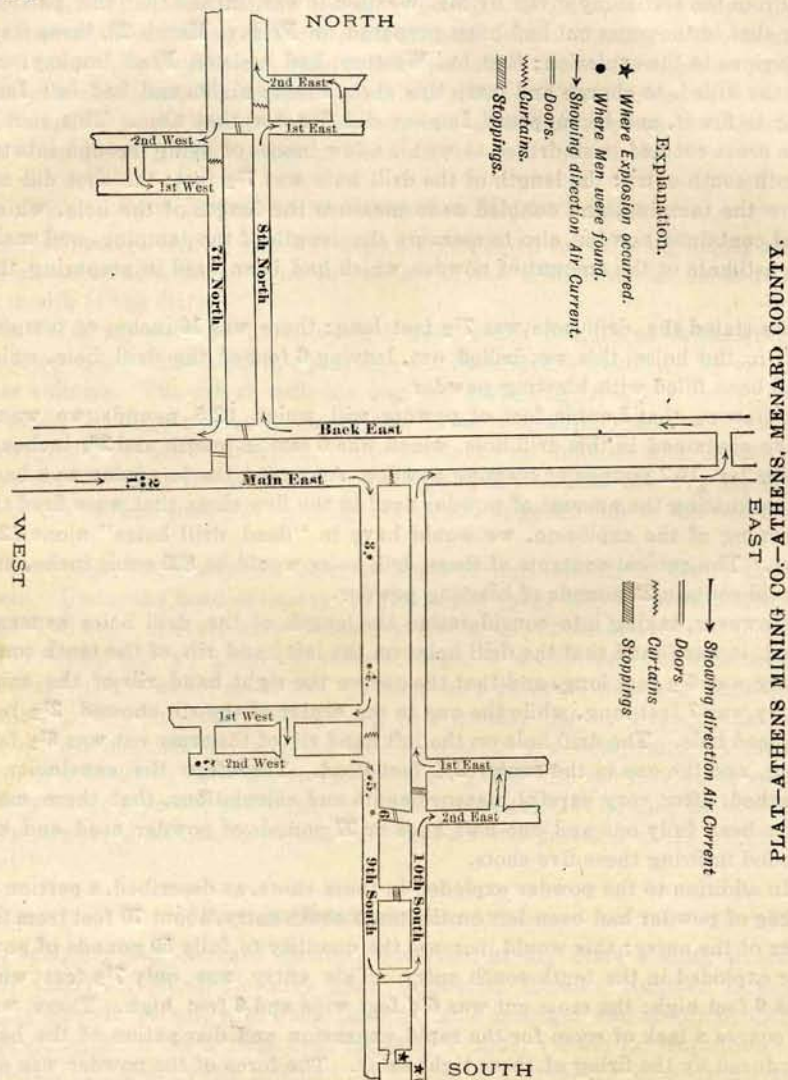
As stated the drill hole was 7½ feet long; there was 16 inches of tamping left in the holes, this we drilled out, leaving 6 feet of the drill hole, which had been filled with blasting powder.

Allowing that 1 cubic foot of powder will weigh 62.5 pounds, we would have contained in this drill hole, which was 6 feet in length and 2¾ inches in diameter, 14.2 pounds of blasting powder. Assuming the foregoing as a basis in estimating the amount of powder used in the five shots that were fired the morning of the explosion, we would have in "dead drill holes" alone 12½ feet. The cubical contents of these drill holes would be 825 cubic inches, and would contain 29 pounds of blasting powder.

However, taking into consideration the length of the drill holes as measured, it was found that the drill holes on the left hand rib of the tenth south entry was 6½ feet long, and that the one on the right hand rib of the same entry was 7 feet long, while the one in the center of the rib showed 3½ feet of dead hole. The drill hole on the left hand rib of the cross-cut was 6½ feet long, and the one in the center 2½ feet dead. Therefore the conclusion is reached, after very careful measurements and calculations, that there must have been fully one and one-half kegs or 37 pounds of powder used and exploded in firing these five shots.

In addition to the powder exploded in these shots, as described, a portion of a keg of powder had been left on the tenth south entry, about 70 feet from the face of the entry; this would increase the quantity to fully 50 pounds of powder exploded in the tenth south entry. This entry was only 7½ feet wide and 6 feet high; the cross-cut was 6½ feet wide and 6 feet high. There was of course a lack of room for the rapid expansion and dissipation of the heat produced by the firing of these tight shots. The force of the powder was expended in creating velocity and the velocity thus created put in motion the

smoke or carbonic oxide gas produced by the incomplete combustion of the powder, consequently carrying the flame a long distance, which, in this instance was from 500 to 600 feet. It was found that gas had settled in the ninth south entry, beyond the last cross cut, but none was found at any other place. In the last named entry there was very little indications of an explosion. In the tenth south entry was found every indication to justify the forming of an opinion that the explosion was caused by the shot fired in this entry.



FATAL ACCIDENTS.

The following is a detailed statement of the fatal accidents that have taken place in the third district during the year ended June 30, 1903:

Jan. 6, 1903, William Johnson, helper, aged 31 years, married, while working with the timberman in the Wabash Coal company's mine, Athens, Menard county, was injured by falling slate. His injuries proved fatal, as he died Feb. 3. He leaves a widow.

March 23, 1903, Six miners were killed by the explosion of "windy shots," in the mine of the Athens Coal company, Athens, Menard county, as follows: Fred Impkey, aged 33 years, married, leaves a widow and one child. Ed Corndorf, aged 35 years, married, leaves a widow and four children. David Myers, aged 55 years, married, leaves a widow and four children. August Neal, aged 48 years, married, leaves a widow and four children. John Radquneski, aged 34 years, married, leaves a widow and three children. James Patrick, aged 25 years, single.

June 27, 1903, William Mushbaugh, miner, aged 51 years, single, was crushed and instantly killed by falling roof, from a slip, in Little's mine at Wesley City. Deceased was deaf and, to a certain degree, was dumb. It is presumed he did not hear the cracking of the roof before it fell on him. His room was well timbered, showing that he was a very careful miner.

June 30, 1903, Alex. McKenzie, timberman, aged 64 years, married, received injuries by falling roof, at the Maplewood Coal company's mine, Farmington, Fulton county, resulting in his death about two hours afterwards. He was the timberman of the mine and had been in the employ of this company over two years. The mine examiner had reported to the mine manager that a fall of slate had occurred in No. 2 south entry, on the west side. The mine manager sent McKenzie and his helper to attend to the matter. The two men had cleaned away the slate and were at work propping up the clod temporarily, while preparing the permanent support. They had part of the support under the clod and, while in the act of driving a cap piece over a prop, the roof gave away, crushing McKenzie to the floor, the prop lying across his back. The deceased was conscious and talked freely, though in great pain. He died about 20 minutes after being carried to his home. His backbone was broken near its juncture with the hips. He leaves a widow and five grown up children.

The tables of fatal and non fatal accidents, also the county tables of the output of coal of the district follow:—

Respectfully submitted,

JAMES TAYLOR,

State Inspector of Mines, Third District.

Peoria.

Fatal Casualties—Third District—July 1, 1903.

Date.	Name.	Age.	Occupation.	Residence (town).	Dependents				Cause of Accident.
					Married.	Widow.	Children.	Single.	
1903									
Jan. 6	Wm. Johnson	31	Miner	Athens	1	1	1	1	Falling roof
Mar. 23	Fred Impkey	33	do	do	1	1	1	2	Explos'n, windy shot.
23	Ed Corndorf	35	do	do	1	1	4	5	do
23	David Myers	55	do	do	1	1	4	5	do
23	August Neal	48	do	do	1	1	4	5	do
23	Jno. Radquneski	34	do	do	1	1	3	4	do
23	Jas. Patrick	25	do	do	1	1	1	1	do
June 27	Wm. Mushbaugh	51	do	Wesley City	1	1	1	1	Falling roof
30	Alex McKenzie	64	Timberman	Farmington	1	1	2	3	do
Total—9.....					7	7	18	25	

Recapitulation of Fatal Accidents—Third District—July 1, 1903.

Residence.	No.	Occupation.	No.	Nature of Casualty.	No.	Collinery.	No.
Athens	7	Miners	8	Explos'n, windy shot	6	Wabash Coal Co.	1
Wesley City	1	Timberman	1	Falling of roof	3	Athens Coal Co.	6
Farmington	1					Ed Little	1
						Maplewood Coal Co.	1
Totals	9		9		9		9

Non Fatal Casualties—Third District—July 1, 1903.

Date.	Name.	Age.	Residence.	Married.	Single.	Children.	No. persons dependent.	Character and cause of injury.	Time lost—days.
1902									
Oct. 3	Wm. Owen	22	Reed City	1	1	1	1	Leg broken; falling roof	*
8	Geo. Herin	30	Pekin	1	1	2	3	Wrist broken; premature shot	71
10	Jas. Wilson	32	Wesley City	1	1	1	2	Wrist broken; flying coal	60
12	Jas. Curtles	46	Reed City	1	1	6	7	Head and shoulders bruised by door; windy shot	24
12	Mat. Regh	45	Peoria	1	1	5	6	Ankle bruised; falling rock	40
Dec. 3	Olexand. Lebas	36	Pekin	1	1	1	1	Leg bruised; falling rock	40
27	Fred Fisher	27	Peoria	1	1	1	3	Shoulder and body injured; ribs broken; windy shot	60
1903									
Jan. 20	Wm. Chaney	24	Reed City	1	1	1	1	Ribs broken; pit car	30
Feb. 17	Macheal Backs	45	Bartonville	1	1	3	4	Body burned by shot	36
Mar. 5	Aug. Gunshesa	25	do	1	1	1	2	Back injured; falling slate	30
21	Daniel Reeves	16	Kingston	1	1	1	2	Leg and arm broken; falling roof	*
23	Paul Jerkins	26	Athens	1	1	1	1	Face and hands burned; windy shot	*
May 26	Wm. Turner	45	Bartonville	1	1	3	4	Shoulder bruised; premature blast	30
June 29	J. Shabatka	27	Reed City	1	1	1	1	Body bruised; falling roof	30
29	J. T. Smith	29	Farmington	1	1	5	6	Arm broken; falling roof	*
Total—15.....									451

* Not recovered July 1, 1903.

Total men injured.....	15
Not recovered July 1, 1903.....	4
Number recovered July 1, 1903.....	11
Time lost by men recovered.....	451 days
Average days lost by men recovered.....	41