YOUNGSTOWN STATE UNIVERSITY

ORAL HISTORY PROGRAM

Coal Mining Project

Coal Mining Experience

O. H. 429

GRAHAM KEARNEY

Interviewed

by

Ellen Daniels

on

May 18, 1978

GRAHAM KEARNEY

Graham Kearney lives at 519 East Lincoln Way in Lisbon, Ohio. He was born in 1890 in Leetonia. He did not attend the Leetonia Public School System. Graham attended Kiski School in Pennsylvania and graduated from this school. Kiski was and still is a prep school. After high school, Graham attended Cornell University from 1908 to 1912 and he graduated with a MA degree.

Graham's parents were Oliver Graham and Margaret McKeeffrey.

He was married on October 12, 1921 to Ariel (no last name was given). His marriage took place after he had served in World War I. He gave an interesting explanation of how he achieved his rank as a first lieutenant. According to Graham, he had to go to a man who he called the colonel in order to have his letter for his commission approved. He then had to travel to Washington, D.C. where he presented his commission letter to a captain. He could have asked for the rank of a captain but settled for a first lieutenant. He was placed in the Army Ordnance Department, but he never left the United States. He was stationed in New York. He served from 1917 until July of 1919.

Graham was self-employed because he worked on a commission basis. He sold coal. During the time he was a salesman, he represented the McKeefer Company from 1915 until 1936. This company owned mines in Columbiana County, Mahoning County, Pennsylvania, and in West Virginia.

Today Graham is retired and has one child. His son is Franklin Graham who is 56 years old.

Graham is still a member of the St. Patrick Roman Catholic Church in Leetonia.

Graham is a very active man. He belongs to several organizations. These include the Knights of Columbus, former Chairman of Cooke Day Celebration, which was held in 1953, Delta Tau Delta Fraternity, Preservation of Architectural Buildings in Lisbon area, and Lisbon Historical Society. His main hobby is history.

In the tapes, Graham described the mines and theminer, from the view of management looking at labor. He also talked about the price of coal and the different grades of coal. One interesting area that he included about the coal mines was the use of this coal for the coke furnaces that were located in Leetonia.

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INTERVIEWEE: GRAHAM KEARNEY

INTERVIEWER: Ellen Daniels

SUBJECT: Mining management, problems in mining, grades of coal, price per ton, location of mines

DATE: May 18, 1978

D: This is an interview with Graham Kearney for the Youngstown State University Oral History Project on Coal Mines, by Ellen Daniels, at 519 East Chestnut, on May 18, 1978, at 3:30 p.m. in Lisbon, Ohio.

K: The way I became associated with the coal industry is my uncle, and a man named Hofias, who came to Leetonia, Ohio around 1886 and purchased the Grafton Iron Company, which had two, small blast furnaces. They tore those down and built a much larger single furnace. Hofias, after a short time, decided he wanted to go west, and he wanted Mr. McKeefrey to go with him, but Mr. McKeefrey decided to stay in Leetonia. A little story about Mr. Hofias was that when he went to Seattle there were four or five couples in business there, of different types. An agreement was made that the man who made the first million dollars would have to take the other couples to Europe on a vacation. Hofias paid the bill.

W. D. McKeefrey was my uncle, and he continued in the operation of this blast furnace. Joined with him was his father, and other brother. We became interested in coal because to operate a blast furnace you need coke. The original coke which we had was mined near Leetonia. We built our own ovens west of Leetonia. We mined the number four coal, which was the best coal in this area to produce coke. However, a few years later Connellsville coking coal was discovered in what is known as the Connellsville region, that region extending from Connellsville through Scottdale over to Uniontown, Pennsylvania. The coal seam was about six to seven feet high. It was much easier and cheaper to mine

that coal, and therefore it became much cheaper for us to buy that coke than to produce our own. Now our competitor on the east side of Leetonia, the Cherry Valley Iron Company, they kept their ovens and bought coking coal from the Washington Coal and Coke Company, and shipped it into Leetonia, and made their own coke.

We had two different types of coking coal. One was low sulphur, and one was high sulphur. The low sulphur coke was used for blast furnace practices. The high sulphur coke was sold for use in salamander, heating processes, and also to copper mills to reduce their slag, and produce extra copper, which had been lost in the slag when they first reduced the copper ore.

Our next appearance in the coal business we bought a small coal mine just west of Leetonia, either in the number three or number six seams. We used that for steam coal.

May I tell you another little story about the coal mining industry in that day? As a rule, the wives collected the pay checks and came to the pay window on pay day for the money. Every once in a while it would be a very nice day, and the miners would decide to take the day off and go fishing, so they called a strike for the day. Their wives had packed their dinner buckets and were sure their men worked that day. When the wives picked up their husbands pay checks and counted the money, they were sure the mining company had shorted them and many heated arguments ensured.

Our next connection with the coal business for our coke oven coals was working out. We decided to continue in the coal business, and we went down to West Virginia, just below Moundsville, and bought a thousand acres of deep mine coal, which is in the Pittsburgh seam. This coal was four or five feet high. We sunk a shaft down to the coal and produced coal for many years during the period, until the Depression came. We unfortunately believe we put the mine in down there in West Virginia about twenty-five years too soon. We went through the Depression and we sold coal, that is slack coal, for 75¢, runamine for 90¢, 3/4 of a lump for $1.05. The top price at those days was about 90¢ for slack, $1 for the runamine, and $1.25 for lump. All these prices were per ton of 2000 pound. We finally decided to close the mine down. We hate to tell what we lost, but the books showed $1,750,000.

My position was a salesman for the various coke, and coals. Of course, as you understand, one coal does not meet the requirements of all the manufacturing companies. We have Youghiogheny gas coal; we have low-sulphur Pittsburgh coal, the higher sulphur Ohio number eight; we also have a number

eight A in Ohio. Then we have the various seams in the Ohio coal, from one up to three and on up to eight. At one time the coal mine in the number one seam under Massillon and Youngstown and Sharon was known as the best domestic coal in the United States. It was the leading domestic coal used in the city of Chicago at that time. The last mine operated in the Massillon seam or the Youngstown seam and was east of Deerfield about three or four miles. It had a shaft of almost 400 feet. The coal had peculiarities; it only had about five-tenths of one percent sulphur, three or four percent ash, but its fusibility was very low, so it was practically limited to domestic use.

Our mine was located on the B&O Railroad, just below Moundsville. One of the experiences you have in operating what we would call a commercial mine, it produces three sizes of coal: Slack, one inch and under, a one by three A, and a three-inch lump. There were times when we had the lump sold and didn't have the A or the slack, or vice versa. We had lots of slack sold at one time, and had a surplus of A and lump. At the particular time of which I speak, we had sold our A and lump, and we had to use up our slack, so we decided to burn it under our own boilers. Well, the firemen did not like to burn slack because that meant that they had to carry a light fire and fire it more often. So they waited one time until Mr. McKeefrey, our superintendent, and I were down at the bottom of the shaft, which was 105 feet deep. We were 3/4 of a mile from the bottom of the shaft, and being very close to the Ohio River, which was 35 feet felow the surface, we had a four inch line of water coming into the mine all of the time. They allowed our steam to go down, therefore the electricity began to dim. We could not move our motor to haul us back; the pumps began to fail. If it had not been for a telephone system we had what would have happened to us is questionable. Our superintendent called the assistant superintendent and he went over to the boiler room and took charge of the firing. They brought the steam up to the proper temperature and we were able to get back out of the mine. That was one of the experiences you sometimes have with deep mining and your labor.

We sold our coal mostly to the glass companies, and some to railroad as well as domestic. Our best market was in Parkersburg, West Virginia. Our slack market went to the cement industry around Allentown, Pennsylvania.

In the Lisbon area, some time ago, for the Centennial book, I wrote a chapter on coal. At that time I tried to get the names of all those interested in producing and selling. Most of the coal at that time was being produced with surface mining. We had very few deep mines. When they started here

to produce surface mining, the producers went around to all the old abandoned mines and took up that acreage so that most of the strip mines were started from the abandoned deep mines which we had in the Lisbon area.

There were three types of deep mining around here. We had slope, drift mining, and deep shaft before surface mining was used. Of course, the most expensive was the shaft mining. The surface mining was much cheaper and also the safest way of doing it. We did not always get the best coal because at the time, naturally, the shovel operators would pick up some bottom dirt and the high ash coal was the result. Then there were some parts of our surface mines after we had reached the place of too high an overburden for surface mining; then they put in the augering system, which augered the coal out from under the overburden and they went back as far as 75 to 80 feet. They may be going farther now than I know. In that way they practically finished up that area, and we were not able to go back in that area to mine coal because for 70 feet of it we would have to take the overburden off without any coal underneath it.

D: Interesting. Now with the overburden, that is the earth over the coal (sand, rock, shale)?

K: That is the dirt. In the older days, the way they figured surface mining was a ton, per inch, per acre. The amount of overburden it would take is a foot per inch of coal. So if you had 36 inches of coal you could take 36 feet of overburden. Today however, with the larger equipment, some are taking it as high as 100 to 125 feet, for 24 to 30 inches of coal.

We had here in Ohio, in the southeastern section, seams of coal noted and named from 1 to 8A. Now as I said before, the Sharon or Massillon seam was excellent domestic coal. Two I do not believe amounted to much because of the small thickness of seam. Three was mined very heavily through the Leetonia and Lisbon area, also number six. There were some number sevens produced, but it was largely around Cannelton, Pennsylvania and that area. At one time one of the surface miners produced a coal over in there which is number seven, which became one of the finest stoker coals that they could buy in this area. Number six coal was also heavily mined here, and down in around the Tea Garden area as well, they shipped a lot of that coal to distant places.

Then the surface mining took over, and as I say, we have had a number of surface mines here. We never had a washer of coal until recently, and we understand that one is being built just south of Lisbon. There will be a great demand for coal and I hope that this area will be able to supply the coal, which they will need to make that washer a financial success.

D: I have one question. You mentioned coal number four; what does number four stand for, or number six?

K: The seams were numbered in rotation: 1, 2, 3 . . . 8. One is on the bottom. As you came up these different seams of coal you reached number eight. It was never mined here. It ran out here, and it was mined down around Southeast Ohio near Martins Ferry, Bridgeport, and north of Belaire, Ohio. They also discovered an eight-A, which was mostly surface mined there, but it did not have the quality of the number eight. The number eight coal was a standard coal used in Ohio for many years and in parts of Michigan. The number eight coal, or the steam coal, out of both Pennsylvania and Ohio were largely supplemented by coal mines in Kentucky and West Virginia. In time these coals for domestic purposes took over in place of the Ohio and Pennsylvania coal. The Pocahontas seam coal--low volatile--from down in Kentucky and West Virginia, and some parts of Virginia, became the leading domestic coal around the Cleveland area, and up into Michigan.

D: On the coal you mentioned before that the one had lesser sulphur. Which one had the most sulphur? Which one had the least sulphur on those numbers?

K: As far as I would know, the one that had the least sulphur was the number one seam, because analysis of that mine east of Deerfield showed about .50 to .56 of sulphur. Now the coal mined in number eight field and the number three were very high in sulphur. In number eight it ran anywhere from two to four percent. Now in the number four coal, it was much lower. There is also something to remember that sulphur occurs in coal in two ways: vegetable sulphur and pyritic sulphur. When the coal is burned the vegetable sulphur will go off in the smoke. The sulphur combined with the iron will stay in the ash and cause clinker trouble.

The number seven seam which also was probably lower in ash content than the number eight and much lower in sulphur could be used by the manufacturers of brick, or products which needed glazing, such as sewer pipe. The number eight could never be used for those purposes. A few years ago when there was a scarcity for coke, some operators tried to reopen the ovens at Leetonia. They fixed up four or five of them and tried to coke Ohio coal--the number eight seam. The coke cooled, the coke coked all right, but the analysis was such that it could never be used domestically.

At one time there was considerable coke used for domestic purposes, and that replaced hard coal in this area. Very little hard coal was mined here and seldom used here because it was too expensive, but a few of the people who could

afford it would bring hard coal into this part of Ohio to burn in their furnaces, and particularly in their grates.

Another coal which was produced in this area, more up around the eastern part of Youngstown and in North Lima, was known as cannel coal. Cannel coal was a very hard coal; it was a good grate coal; it burned slowly, gave out considerable heat, but it had considerable ash and could only be used for heating purposes. A lot of cannel coal was sold up through the northwest into Canada, and up in that area where the heating was mostly done in the houses by grates. It was a wonderful grate coal if you didn't mind carrying out the ash.

D: When you are talking about the coal and so forth, would you say the 1920's and 1930's was a period of higher coal usage than in the 1940's with the coming of gas?

K: No, I don't think it was. To a certain extent, yes, but as the steel industry grew, coal went into the steel industry for making the by-product coke. In tremendous quantities where we lost out in domestic coal as a whole, the coke consumption continued high because of the different purposes in the steel industry for which it was used. Our domestic coal fell off; that is what happened to the coal industry to a great extent in Ohio and West Virginia. We lost practically all of the domestic business when the electric heating and gas heating came into existence.

D: Do you remember when the gas heating really kind of came within this area?

K: Oh, I would say about 25 to 30 years ago it started, and it was at its peak prior to this gas scare. A lot of companies, even back five or six years ago, were gradually turning from coal heating to electric, or to gas heating. A good many of the electric companies had turned to gas in producing electricity. They will have to return to the coal as soon as possible in order to keep operating. We have coal in Ohio that I've heard will supply us for the next 100 years, and the utility companies will be the ones that will have to burn it up.

D: I didn't know that. When you were in the 1930's and 1940's, how many men did you have working in one of your mines?

K: A small mine would have as high as 50, sometimes up to 100. The larger mines would go up over a couple thousand, in such as the deep mines in West Virginia. The largest mines were down in the northern part of West Virginia, although there were several in Ohio. Then, of course, there were a number of large mines mining coking coal around the Green County and Westmoreland County areas in Pennsylvania, and places like that. But the limit of employees was dependent

upon how much of an acreage you were mining at any one time.

D: Okay. Well, let's say as compared to how much the coal miner made per day, or per week, or whatever it was, let's say in the 1920's, 1930's, 1940's, what would their income be in the 1920's? Do you remember? 1930's?

K: I think it would be about $7 or $8 a day.

D: That would be in the 1920's?

K: Yes.

D: It probably stayed the same in the 1930's because of the Depression years.

K: Yes; it gradually came up. Of course, when we lost this consumption of coal, the deep mines around Lisbon practically went out of business because they could not meet the competition from the surface mining mines. We had very little, and today I think there is only one, if there is one in this area which is known as a deep mine.

D: The deep mines, when they went out of business, did they just leave them, just close up the mine shaft and so forth, or did they leave them open?

K: Well, no, some of them left them open, but a good many of them, when they decided they were through, pulled out of the mine equipment what we would call the saleable articles of any value, such as the rails that were in there for the mine hauling, the pumps, and all their mining machinery was all taken out.

Now there were different ways of mining of course. The first mining was pick mining, which was done just going in and picking the coal and shoveling it into your car with a shovel. They had what is known as a breast drill. They put it up against their chest and they drove holes into the coal seam, bored into the coal, and then they put their dynamite in there, or black powder, and shot the coal down. Later they got machines to undercut it, and some overcut, and some side cut it.

D: Okay, in your mines, I have heard that in some mines the miners had to buy their own powder, is that true?

K: Oh yes, the miners bought their powder, caps, and a good many things like that. The operators may have furnished picks, a few things like that, and they furnished the mine cars of course, the rails, hauling of the cars. Then, of

course, in the deep mining we had to have air go into the mine, so we always had an air shaft as deep as a mining shaft to take the air in. The first mining was done of course with the room, and entry, and then we had long wall; they had short wall. The long wall was where they would take a seam of coal and run it all along, and cut it that way and mine it. The other way was just to open up a room and leave the pillars in between the rooms to keep the roof from falling. They would drive an entry straight down through the coal; then they would drive rooms off that entry to either side. Then they had methods of driving the air down through there, air fans, et cetera, and with cloth, curtains of different kinds, throw the air where you wanted to throw it.

Of course, we had the dangers of deep mining coal always with us; we had fire damp, and black damp, the gases of all kinds, and there were some mines that you could not use an open light in, others that you could use an open light and then if an explosive gas developed a mine explosion took place. They had closed light in some, and that is where a lot of the accidents came in in the mining business. We had mine inspectors of course who went into the mines and inspected all the working places and other places that might in any way have a gas condition which might explode and cause an accident in those mines. One of the other accidents would be the failure of the posts to hold the roof up, and there would be a fall; that could have been caused by the air getting in there and drying out, or the water seeping down through, which could cause a fall. So those are many of the hazards of coal mining, and deep coal mining, which I consider one of the most hazardous businesses in the United States. You never know when you go in that mine whether you are coming out. Because of human error, no matter how many safety devices they make, there is always a human error of negligence. A man will accidently smoke when he shouldn't light a cigarette, and bang! Or he will do something that he shouldn't, or there may be a spark somewhere occurring from a mining machine which may ignite a gas and cause an explosion.

D: With the deep mines, particularly an explosion and other breaks, were there any new safety features or something coming out in the 1920's and the 1930's?

K: Oh, you mean safety devices. They continually built different safety devices. They even went into areas where they had the dust left in the mine, and they made a limestone solution and sprayed all of the coal walls with this limestone solution. They also sprayed the dust down to settle the dust. It's dust that causes a good many of the explosions, and they would just settle that to keep it from

exploding. I don't know whether they do that today or not.

D: That is an interesting feature. Now were your mines electrified?

K: Well, ours were shaft mines and from the bottom of the shaft we had small rails taking out to the different rooms and the different entries. We had mining cars and then we had electric locomotives to haul those cars back and forth from the different working areas.

D: Now when you say a locomotive, you don't mean like the big locomotives where you think of it as like a train. They are smaller . . .

K: No, these locomotives were of a different type; one would be about four feet high, and four or six feet wide, and about ten, twelve, fourteen feet long depending on the size of the motor; they were all electrical too. Then some we had were operated by batteries in it, but they never were satisfactory. We tried them once, but you had to charge, and the cost of recharging them and bringing them out of the mine and recharging them was too expensive. Generally we put in our own electric line in the mine, and we worked on the trolley system, the trolley off the motor, the same as the old streetcar line.

D: Did you make your own electricity?

K: Yes, we developed our own electricity.

D: Well how did you do that?

K: We had our generators and our boilers, and we fired the boilers and the steam developed, drove the generators, and they made the electricity. We had our own electricity.

D: Did you have any accidents within your mine?

K: We had a few. I don't remember. Not too serious. Maybe we did lose the lives of two or three of the men, but we did not compare with other mines. Now I remember a mine, J. K. Mather, it was a great coal operator in the Ohio number eight field. I assure you, you never knew what was happening. He and two or three other officials and his son were in one of their mines, down in the southern part of Ohio; an accident occurred, and all of them lost their lives in the explosion in the mine.

D: What time period was that?

K: Oh, that was between 1912 and 1920 somewhere.

D: When you were in the mines, did you have large openings or were they small openings?

K: Well, our room, the entry and room, we drove a long entry and then drove rooms from this entry. They went back maybe 25, 30, 40 feet. Then there would be another entry alongside of that. We had to leave columns of coal to support our roof. As well as this, we did timbering in that driveway in that entry; we had to timber entries and room to keep the roof up.

D: In other words, it was a combination of the coal itself as well as the wood?

K: Oh yes. We had to have timbers in there at all times. That was very necessary. You had to be careful about that because a fall could occur any time. That, of course, might block the miners off from the shaft bottom. It's just that there will always be coal mining accidents. We had one here not too long ago in which several people were killed. It has been as high as 500 people that have sometime lost their lives in some of these coal mining explosions. The smaller ones had accidents, of course, once in a while. There will be one or two or three people that lose their lives in some kind of an explosion in the smaller mines in Ohio and around here.

D: In the coal mines, as you were inside the mines somehow after you used up the mines, did you close up any of the mines?

K: Well, we would come out and as we came out we drew the coal pillars. In other words, we took as much of that coal that we could safely bring out as we closed up the mine.

D: In other words, what you did when closing the mines was to bring out all saleable coal and equipment?

K: That's right. We came back out as we had mined out to the extent of our acreage. Then we didn't have any more acreage to go into and we came back. As we came back we would take out all of those coal pillars that we could safely take out, and reclaim that coal which we had left in originally.

D: In other words, let's say you mined out the acreage you said you owned and you discovered that adjoining it was additional acreage which was owned by somebody else, a nice vein. Would you go and try to get the mineral rights to that acreage?

K: We would try unless the miners were overproductive and got into the other fellow's acreage. Generally it ended in a lawsuit that came up over that.

D: I would imagine there would be a lawsuit. (Laughter) In such an instance, I would imagine the owner of the mine that was mined illegally would be the one that would basically lose on something like that.

K: Anybody that took coal from the other fellow's property, naturally, would have to pay the damages.

D: If you did discover that there was coal on somebody else's property, and the person knew about it, I assume that the cost would go up, the cost factor of buying?

K: Oh yes. If they knew they had coal, and good seam coal, the owner would ask a high price. The cost of acreage of coal was different depending upon the quality of the coal, which you were going to mine. I don't know what they pay for coal royalties now, but they used to be a penny an inch for strip coal. If you had thirty inches of coal you got 30¢ a ton for your royalty. Coal seam price royalties now could be a dollar per ton.

D: Okay, that would be in what period of time?

K: That was back about thirty years ago, something like that. I don't know what it is today; I do know their expenses are high and today they are getting much more money than we ever got, but their expenses are much higher. It is said now, one operator told me not long ago, it cost him $8 a ton to reclaim the land which they have suface mined.

D: Have you ever gone to the mines in Wales and England?

K: No, I have never been there, but I have gone past them. We drove from Liverpool down to Cardiff and we passed the area in which that terrific landslide occurred many years ago, carrying debris from a mine over a school completely. I don't know how many children lost their lives in that landslide.

D: Oh my!

K: A good many of our miners here in the States have come from England and Scotland and Wales. In fact, I knew one superintendent who we had was a Welshman, and another one who was a Scotchman, and they knew the coal mining industry.

D: When did you get out of the mining industry yourself?

K: Well, I never did. In 1936 I would say. Then I continued in buying and selling strip coal, strip mine coal.

D: What mining company did you work for when you were employed?

K: Oh, I worked for the McKeefrey Coal Company.

D: Which was one of your relations.

K: Yes, yes it was. I worked for McKeefrey and Company as a salesman. They controlled the McKeefrey Coal Company, and the Atlas Coke Company.

D: Okay. The McKeefrey Coal Company was in West Virginia?

K: It was in Northern West Virginia. The Atlas Coke Company was--that was one of the other companies--they were in near Uniontown and Connellsville, Pennsylvania.

D: How did you end up in Lisbon then?

K: I got married! (Laughter)

D: I'm glad you did come into our area.

K: I was born in Leetonia. Naturally, I went away to prep school and went away to college. Then I went to work for Morgan Engineering of Alliance; then went on the road selling for my uncles. I lived in Leetonia until the time I was married. Then I moved down here.

D: What university did you go to?

K: I went to Cornell.

D: Cornell. One of the Ivy Leaguers?

K: That is an Ivy Leaguer. Of course, I went to Kiski Prep School first.

D: Where is Kiski at?

K: Kiski is in Saltzburg, Pennsylvania, about thirty miles east of Pittsburgh. We had about 110, 112 boys there. It was quite a school.

D: Is that a prep school?

K: That's a preparatory school for boys, for colleges. Our boys, some went to Pitt, some went to W&J [Washington & Jefferson], some to Princeton. Once in a while a couple would go to Yale. Well, there were five of us that went to Cornell the year I graduated. Most of the Kiski boys, some would come out into the Ohio colleges, but Pittsburgh and Carnegie Tech got quite a few of them, and Penn State.

D: When did you get out of your prep school?

K: I was there from 1905 to 1908.

D: Wow! Then you had gotten through college prior to the advent of World War I?

K: Oh yes, I graduated in 1912 prior to my twenty-first birthday. Then I was selling when I got into the service.

END OF INTERVIEW