

Idaho Panhandle Oral History Project
Interview with Maidell Clemets
October 26, 1979
Smelterville, Idaho
Interviewed by David Barton
Questionnaire Information

MC = Maidell Clements
DB = David Barton

Tape 21; Side 1

MC: We don't read as many books as we did. As we should read today. The books circulated more then. Libraries were more appreciated. Magazines. Gee, I can remember when I was a young man, I took three or four magazines. And ah,...

DB: How about radio?

MC: Radio, yes. We were very much interested in radio. It was a wonderful thing. And it came to this community about 1923. We bought a Harvey Super Clarodine with earphones. And ah, if you wanted to have a loudspeaker you'd buy a Panachrome. Everybody would come to the house. And we would take and put this here earphone in an aluminum pan, and everybody stand around the pan to listen to it, you know.

DB: I have a series of questions about mining, that are related to mining, that I am really interested in. First of all, one last question about the clothes. Did the people wear the same kind of clothing in the mines in the Summer, that they did in the Winter, did they wear wool in the Summer too?

MC: Yea. The temperature underground was the same. Underground it's very steady.

DB: They would wear wool in the Summer?

MC: Yes. Yes.

DB: How about hats, did they have any special hats?

MC: Yes, they had a special hat. They would ah...

(BREAK IN TAPE)

DB: What kinds of jobs did you do in the mines?

MC: Well, there is various types of work in mining. Ah, one of them, of course, is breaking the ore. The miner, who runs the machine and does that is called a miner. And the man who used to shovel the ore, he was called the mucker. The man who pushed the car, take this ore and dump it in the chute, why he was called the crammer. They had rails, narrow gauge rails. Man who did the timbering, he was called the timberman.

XF: He was the timberman.

MC: And in the early days, there was quite a distinction in the mining camps. Between the various grades of men who worked in the mines. Now if you was a mucker you was about as low on the social scale as you could get. Didn't have any talents or any abilities. If you was a machine man, that

was quite a thing. Before they were drilling all the time with hand steel. Probably each machine would replace about four men, working with hammers. And ah, then the timberman he was in a little higher pay scale, he was up above the others. If you was a shift boss or bossed a crew of men in the mine, why you was really amongst the elite. You were the member of the aristocracy, you know. You was about as high on the social ladder as you could get. And ah, they tell the story about the boarding house. The girl ran down said to her mother, "Momma," said, "There is a dirty mucker up there in a miner's bed." And ah, you can see by this how the social distinctions were. So, ah...

DB: What kind of tools did each of those jobs have?

MC: What?

DB: What kind of tools did each of those jobs have?

MC: Well, this here mining, basically is based upon the use of the pick and shovel, and hammer.

DB: When did that stop and get into...?

MC: What?

DB: When did they stop using pick and shovels?

MC: They still use all these tools in mining. They use the pick and the shovel and the hammer. You use mechanical devices each year now, though. See, as mining become more mechanized, just like you see in anything else. But ah, there is no need to employ, less men each year in mining, than they did the year before because of mechanization.

DB: When did the first mechnized tools come in?

MC: The mechanization started in, they did, say, around the 1900s. They started bringing in power--pneumatic power. Compressors. And ah, electricity, and steam and things like that. And ah, the development of a machine that would drill in hardrock.

DB: When did that come in?

MC: That came in right around about the 1900s too.

DB: OK, so by the time you started working...?

MC: By the time I started working there was not very much hand mining being done anymore. Now they, they had ah, some of the outlying small properties they did hand mining. And, surprising thing up here. Now the Day Rock Mine, up the way in Wallace. They stayed with hand mining right into the '40s. They say the costs were very comparable to the other. By machines. But ah, I think one of the reasons that was, was the type of rock formation, which they had. Which was very soft, you know. And soft ground. Didn't take too much to break it. But ah, in these mines have real hard rock, why the hand miner today, he would just be lost. Get nowhere.

DB: What mine did you start in?

MC: Well, I was a boy, the first mine I worked in was the...I worked for a fellow named Charles Gamble. In Wardner, what

was called Wardner Fractions. And ah, I...we were hand mining. And, Charles, he sharpened his own steel. And ah, I would stand on one side of the drift and he was on the other. I was 14 years old. I would...have a hand steel...and I have a three pound hammer. Here. Nevada Patterned Hammer. The same on each side of the handle. And ah, the hole bored into the handle, it was strapped and I would put the hand where the strap would be, here, around there. And I would strike this way with my shoulder. And turn the steel every time I would hit it. And he would stand on the opposite side. And ah, the result of it was, one'd have to hit right-handed, one'd have to hit left-handed. It wasn't long that I, it would get, that I could hit with either hand. And then, after we'd drill the back holes...those were the holes up on top...and then, we had another pair of holes that we called breast holes...this was just about even with your breast...and, ah, then we would do the cut holes. They were down. And ah, usually what we would do, when the lifters were at the bottom. And the lifters were double-jacked, all the time. And often time we would double-jack the cut holes.

DB: What does it mean, double-jack?

MC: Double-jack, one would hold the steel and the other one would strike with a heavier hammer. An eight or six pound hammer. And ah, you'd become very proficient in this.

DB: But what would you do with the holes after you'd...?

MC: Then we'd load them with dynamite. Put a cap in 'em. The cap is mercury fulminate, in it. A very high explosive. I think, about approximately, I think about 80 pounds per square inch to detonate dynamite. The type that we had. And a fuse that we'd light up and blast it.

DB: So, how many holes would there be on the different levels?

MC: Well, usually on a face, it would take about 12 holes.

DB: So, four on each level?

MC: Yea. Four on each level. And ah, it all depends on the type of work that you was doing. Now if they had one guy working alone, they say that they used to make it small on top and it would get wide as you'd come down. The reason for that was, he didn't take much room up there for his head. And he had to push a wheel barrow down here. See, they had to have to have it wider down here where he was pushing the wheel barrow, see. But really, customarily on this handwork. Which is like we were working on a small property there, we would drill the cut hole first. We would study the rock formation to see how the slips ran, which way to drill this hole, so as we could get the most advantage our of the formation of rock. Then we would drill the cut hole, that would break it out. Then we'd drill our other holes to it. That was we could save some hole drilling. We would be mining with the rock formation.

DB: So, the ore was all loosened by dynamite?

MC: Oh, yea. Yes. That's a lot of explosives that had to be blasted.

DB: So, how mu...that was called hard rock mining?

MC: That was called hard rock mining. Had to blast to break it down.

DB: OK, what were the other kinds of mining?

MC: The placer mining. That's where you take out along a creek.

DB: OK. How about inside the shaft, what other kinds of mining were there?

MC: Well, that depends what type you employ here. You get into dense hard rock you have to drill a hole, you have to explode it, you have to disintegrate it. In order to handle it. In order to cut it down here.

DB: Do they still do blasting now?

MC: Oh, yes, indeed. They do. But the explosives have changed now. They use mostly, these here ammonia nitrates. And different types of explosives like that. But they still are detonated there with dynamite, some of them are.

DB: OK. When they started to use these water, these wet drills, that you talked about earlier; did they have a different name for that kind of mining?

MC: Well, yes. There was the machine mining, it was mechnized.

DB: Did the machine miners also use dynamite?

MC: Oh yes. He was the man that drilled the holes; he was the man that had to load the holes. He would them. And you take a large drift, maybe a 100 men working, or so. Probable would be about one miner to every eight men. So you'd have approximately about 12 men mining in there. And ah, they would have their quitting time. The quitting time, say like it'd be four o'clock, five. You'd do your drilling and, over the area that you were prescribed to drill in. And he would load his holes. And he would have to use his own judgement, you know, on the amount of powder to use--dynamite. It's called powder. 'Cause in the early days the first powder they had was blasting powder; the name just came down with it. But Nobel, of course, he invented the dynamite. And ah, still has the Nobel Peace Prize, for that. But, the result of it was these miners would have to...

XF: Would you like a cup of coffee?

MC: I would.

DB: So, I'm still, a little bit confused about how often would they blast in a day?

MC: Every night. Every night. It was required, if you was a miner and you was in a drift, you was expected to pull a drift around every day. If you could'nt do it we didn't want you.

DB: What does it mean to pull a drift around?

MC: Well, that means you'd have to go into a drift. A drift is a round at it, like this, you know. You go into a tunnel, and ah, in the early days there you were expected to blast

five feet, here in this Coeur d'Alene mining district. And ah, you'd go in there and you'd have a partner with you. And you'd have a bar. It was a screw type, type of screw type bar. Heavy bar, about that big around. You'd set that up in the drift. And you had an arm that fastened on to it. Used to come over and prop against that and take your arm. It'd stick out this way. That had four bolts to it. And upon that arm, you had what you call a clamp. That was a...you had your rig that held the machine. See there was a round opening like for disc setting into it. Move part of the bolt on it. That would control the swing of the machine. You turned it this way and that. Then you had four bolts that came down under the arm, which would control the pitch which you would set on the machine. You could tilt it on this arm, swing it this way or that way. And ah, the result of it was that you have ah, flexibility and direction in pointing of your machine. It was...that was a type of machine that had a crank, screw feed on this machine. It's pneumatic machine. And you would turn it. It was a piston type of machine. It hit this way.

DB: Straight ahead?

MC: Yea. Why, it was first air machines they had. They would hit. They had them in various sizes. The biggest machines, they were called "Burleys". And ah, the smaller machines they were called the "Chippey" machine. And ah, they would hit very, very fast and very hard. Both. They had a long stroke on 'em. And you had to have your machine gauged just right, when it hit this way it wouldn't knock your arm back. Tear down your set up. And it was very heavy this Burley machine, was. It would take two very good men to set that machine up there. Get it up there. You had to be very physically able to do it.

DB: So, they'd blast once a day in the evening?

MC: Yea.

DB: And when they started in the morning what would they do?

MC: Well, they started in the morning, they'd bar down. They'd clean the place down to make it safe for themselves. And ah, they'd set this machine up. And ah, one fellow, he would assist the man in working these nuts and bolts. As he directed. Then, also he'd get water. Carried water in a can for 'im. They had a point, that ah, piston in it. Like a big syringe. It'd shoot water in these holes, you see. Hose it down. That would make the mud come back out. You hear one of those machines drawing in, plup plup plup, see that mud in there. Which was...you had to mud that hole to the extent that the mud was to the right consistency where it would flop out. And that it'd clean itself practically. So ah, when they got through drilling, you tear this machine down. Bring it back to a safe position. Load these holes with dynamite. And ah, the management of the mining companies was always complaining

that the miners used too much powder. Too much explosives. I can well recall, when I was working with a drift like that. The man that was doing the mining, why his foreman came up to him. He stuttered, the foreman did. And he said ah...the miner stammered...he said "m-m-mike you gonna put all that powder in there, are you?" Herb says, "Yes." "Oh, you put two holes...two sticks there and two sticks there, and two sticks here." Told him how to load it, see. After the foreman left, well, Herb says, "Well, I'll fix that wiseguy." Says, "We'll put half in it, it won't break it." So, he loaded just half the amount of explosives. Why, the next morning the foreman, he was right in there. First place he came to. And here it was. It was broke just beautiful. Just lying there--pieces. He says, "S-e-s-s-s-ee Herb. You see." Herb, he cut it in two he thought it wouldn't pull, you see. He was gonna make...make him sorta' foolish. Didn't work that way. And then, I oft times too, like the expressions. Foreman or superintendent would tell the shift boss, lead man there, "You tell your miners to use all the powder they need to break the round," see? He says, "After they got all they need." He would tell 'em to put half of it back and "You'd have plenty."

DB: Well, how many, how many hours would it take to put the holes in there to put the powder in?

MC: Well, it would take you a whole day. Now, if ah...just, mining was a pretty rough game. They knew just exactly, just about how much time it would take to do anything.

DB: So, that powder that you would put in there, that dynamite, it would blow out about five feet?

MC: Well, it all depends to the depths it was drilled. Type of rock formation what you was working in.

DB: But the goal was to get five feet a day?

MC: The goal was to get five feet. Hm-hm.

DB: And, since you only had one blast you had to make it...?

MC: Yes, you had to make it, five foot a day and some places there the rock was softer they had to timber it first. Even though you had to timber, you were still expected to drill around and get it out of there.

DB: So, the, all the actual ore that was moved was from the powder?

MC: Yes. It was blasted out, and laid there on the floor of the drift.

DB: And the muckers would...?

MC: And the muckers were back behind there mucking it up into the car.

DB: So, how many men were on a team, on a mining team?

MC: Well, on a mining team, on a poke in a drift in the early days, it took about four men. Yea. To make a cycle. And ah, so, they would have one shift in the day time. They'd do the drilling, and the mining. Well, the night shift

they'd have a...two men in there. They'd be mucking this up including this drift up.

DB: So, there would be two drillers and then in the evening shift two muckers?

MC: Two muckers.

XF: This is what he was telling about. When he started. There is the way the heavy hammer was, see. Around his arm and he had...

DB: So now the wet mining equipment is to make the same holes you used to make with...?

MC: Well, now they have, what you call a "Jumbo". Tires, or radials mounted on it. Regular tires, just like you have out on the highway, practically. The machines are on there. All hydraulically operated. And they, just like you see 'em on the road practically. Something like that. There'd be two men who start drilling. Maybe sometimes they'd have one man on a Jumbo. He can operate two or three machines at a time. And ah, the job that used to take before eight hours, he can do it, maybe, in two and a half hours.

DB: So do they blast more than once a day now?

MC: Yea. They'd blast that there. It depends on the ventilation. The ventilation is good, he can come right back and do it again, practically.

DB: How long did it used to take the residue to settle down, settle out? Would it take all night to get the...?

MC: Well, it would never settle out, the dynamite. They had the ah...ammonia base, and nitric acid in it. And ah, this gas would stay in the muck pile. An you'd come up in the morning and start mucking that. And if the ventilation wasn't good, long you'd have a very severe headache from it. The same way in handling, this here dynamite. You'd get a very good headache from handling it. And ah, this ah..this is just like people with a heart condition, something like that. Taking these nitro pills today. I suppose the biggest problem taking these nitrates. This, you heart is bad, so they take nitroglycerine, get headaches from it, because it contracts the veins. And ah, don't allow free blood circulation. And results in very violent headaches. I have seen people with heart conditions that just before taking the pill come with a headache. That is the same way with dynamite. Sometimes where dynamite wouldn't explode but it would burn.

DB: How did you get the ore out of the shaft?

MC: Well, we had a hoisting conveyance that, set a drum. And a a cable was wrapped on this here drum. And if they had air or steam why, two pistons, usually one on each side. They'd turn gear which turn the drum. And ah, this here hoist like that were called second motion hoists. Because of the power reduction you see. From a small gear to a larger gear. Well, others, if you were just out on a

common operation, you'd have what you'd call "horse" to pull it up, you see. This was called a whim. And this here, you'd have a shed wheel up on top, and cable ran over it and a bucket went down the shaft. And it would come up and would go over. And ah, there'd come down and then there'd be a horse standing there, here you'd have a round wheel. This horse would have a bar out from that, and as the horse walked around, it would have to step over the cable, you know. And ah, that would provide the power. and you'd get gear reduction, whatever gear reduction you wanted on, by changing the size of the drum, in ratio to that. And, ah, some of the drums now, where they had what they called first motion hoists, they were a tapered drum. They were built in "V" fashion, see. Small end on the drum and the drum enlarged. But there would usually only one wrap on the drum. So, when they'd start lifting, it'd need more power, further down. You see, it's the small spool, you had the gear reduction. Then as you increased, your intensity, as you got closer to your hoist the drum was going...getting bigger, and the speed of it was increasing too. Velocity was pulling it. So, ah, that was the way some of them worked. It was called the first motion hoist. The fellows today they have very, very wonderful pieces of equipment, hoisting now. Made mostly by Allis Chalmers and Nordberg Hoists. And ah, they have what they'd be double drums, and shafts. They have one cage and one side of a shaft counterbalanced against the other. When...so they could utilize the weight of one going down help the one coming up, and like that.

DB: Did they used to have ore cars, or how...?

MC: Oh, yea.

DB: What would the muckers shovel it into?

MC: The, they. Well, it was the type of mining varying. Some of them used an ore car that pushed right into a cage. They'd lift it up. Others, they'd dumped into what they called a pocket. This was on the floor of the drift in which...the chute came out into the shaft. And there they would load the bucket. And ah...

DB: But it was tied to the cable that the...?

MC: Yes. That was fastened to the hoist, which brought it up.

DB: Would they attach the cars to the cables, at all?

MC: Yes. They could do that sometimes. But it depended upon the type of shaft it was and what they had. And ah, but this process of having to send cars up and back and down. But it...rather slow, and more expensive. It was far better to put in a pocket there where you could dump the ore. You could hold it underground as long as you wanted to. And ah, when your pocket was full, then you could hoist it up. And the...

DB: Would you hoist it by bucket, usually?

MC: Yea. Hoist it by bucket they would.

DB: What did they buckets look like?

MC: Well the buckets were designed and built to fit whatever needs you had. There varied according to the power that you had. That you could lift. And the size of your cable. And ah, some of these buckets were made out of steel. Like a barrel with a bail on it.

DB: Did they have wheels on 'em, or did they go straight up?

MC: Well, if it was inclined, like this they had to have a wheel on it. But if they have to go up the incline they have to be built square, they would. But if it was on a vertical, I mean horizontal, why, they would be built sometimes round. These here buckets would go through a shaft. If you don't have a sense what a shaft is. Why you, I gotta' tell you, about the best place you could go. Like I say, right up here, right up to the Sunshine Mine. And they could just take you right in there and just show you. Right where the shaft or bucket is. The guides and everything in it. Just by walking a short distance underground and taking a look at it. Holes going down in the ground. And ah, a shaft is usually laid out, in modern day mining it's about three compartments, per. And these compartments are about, probably about six by four and a half. Something like that. And they, at least two compartments for hoisting. And then they have a raise on the side where they carry out their cables and pipes and things like that. And ah, some of them have another compartment over there, they have another skip in there, they call the Chippey Hoist. With which they repair with. Just like ah...So, it's a very well organized method of mining. It's very complex. But they ah, pull probably at terrific speeds. Ah, you get on on one of them you have quite a sensation of the bottom of the world dropping out in front, by the time you go from one level to the other. Because you, maybe, dropped a mile just about in less time than you could tell about it. Because if you're dropping it be around 2,200 feet a minute. And, ah, pulling about the same rate of speed.

DB: When did they stop using the whims, the horse whims?

MC: Well, is, as you can see is, you have, you got the bulldozers, and things like that. Ah, you got the gasoline motors.

DB: About how old were you when you remember...?

MC: Well, I would say that the whim went out in the '20s. Ah, early '20s. I can remember, when I was a boy, see a whim was a very common thing, it was used in building erection you know. They put a pole up there, they made a ...so they could lift something up. You know, like a derrick, this type. and, they had construction with that, horse-driven whim. And ah, they didn't have a gasoline motor. Many of the big skyscrapers, and many of the big buildings in communities all over the United States, they were built

with a whim. Horse-driven. And ah, they'd hook on to one of those as many horses as were necessary to operate the piece of machinery. And ah, I can, well, I can recall, it was like that here. In this locality, in 1925. I watched as they built the Zinc Plant here. Many of the steel trusses were pulled up by whims. And ah, there was a big crane. Source of power. Source of power, they had the boom up there, and everything like that. They could lower and raise the boom. And they could take the gear reductions on the blocks, you know. The lifting power is increased by the number of moving lines which you have at the load. If you have, say, two blocks down there. Why you got four lines, see, coming through two blocks. One on each side of the block. You increase your power four times. Of course, that is not counting your friction. But ah, these miners were well aware of that, and then if you put another block, say at the load, why then you'd double your power again. And ah, so, this was through ingenuity and gear reduction, and things like that, was known for many years. And ah, they oft times in the modern world say how in the world did the old people get those things up there, you know, or do those. But they weren't stupid.

DB: So, what were the jobs that you did in the mines?

MC: Well, I did quite a few things in my day. I've, when I was a young man, 18 years old, I went mining for myself. Had to acquire some capital. In order to by drills, hoses, and outfits. Cost me about \$2,000 , to get the...to get enough equipment to go to work with. And, ah.

DB: So, you had a team of four working there?

MC: What?

DB: There were four people working in your mine?

MC: Yea, we did all the work ourselves. And ah, there we were talking about blacksmiths, I said they were a dime a dozen. But we did our own blacksmithing. Sharpening steel. We'd go to work about seven o'clock in the morning and we'd drill all day, and the rock was real hard, where we were working. It was very expensive mining. Took a lot of steel, and a lot of powder. I would say we would use about fifty pounds of dynamite. Which at that time was costing us, around \$7.00--50 pounds. And then we had to buy our primers...

(END OF TAPE 21; Side 1)