

Oral History Number: 189-001
Interviewee: Lee Christensen
Interviewer: Brad K. Christensen
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Brad Christensen: This is an interview on beaver slides in the Horse Prairie and Big Hole areas. The interviewee is Lee Christensen; the interviewer is Brad Christensen.

Where did you learn how to build beaver slides?

Lee Christensen: I learned to build those beaver slides from a man I worked with one winter down at the Cross Ranch (?). The old Peterson place. Horse Prairie. We built, I think, about seven or eight that spring, and that started me off on the job. Since then, I've built them all over the western part of the state.

BC: Who was this gentleman? What was his name?

LC: His name was Wilkinson (?). Let's see...Red...I don't know what his full name was, but I called him Red. Red Wilkinson.

BC: When a rancher needed you to build a slide, how did they contact you?

LC: Well, most all these people who I built the slides...I was acquainted with all of them. I'd been here a few year before that. I'd been working around the valley here. After I got started building them, I went over around Lewistown and even over in Idaho around Mackay and Arco and [unintelligible] and built a few derricks.

BC: You called them derricks. That means beaver slides, correct?

LC: Yeah.

BC: How much did you get per slide? How was it decided how much you would get paid?

LC: Well, when I first started building those slides, I used to get 150 dollars. That is, if the timber was out, just for the work putting them together. If I had to get the timber, why, it was about 300, 350 dollars.

BC: Okay. How did you go about getting the materials? What kind of materials did you use, and how did you get them?

LC: Well, I usually had a chainsaw, and I went up to timber, usually got it where I could snake it out with my truck.

BC: What kind of timber were you using?

LC: We used lodgepole pine.

BC: What other materials did you...What all did you need to make a slide?

LC: At that time, it took about 60 or 70 dollars worth of hardware—bolts and cable and a few irons. Had to iron the thing up in places to make it stronger.

BC: Was it real difficult to get the materials that you needed, like the bolts and stuff? Did you—

LC: No, it wasn't too difficult. Most any hardware carried the line of goods, and it wasn't difficult to get that.

BC: Did you get this material in Dillon, or where all did you get it?

LC: I bought a lot of it in Dillon. Some of it I got different places wherever I was working. I built derricks over on Salmon, they got hardware over there. Different places.

BC: All right. Now, how do you go about building them? Now, I know Dad—Jim Christensen—has told me that you had a special way of making them. That you changed the design somehow. Why don't you just describe what all the process was that you did to make a slide?

LC: Do what?

BC: Just describe how you built one. What all you had to do to build one.

LC: The first thing, there was about two dozen 4- or 5-inch poles that went in the derrick, and I had to get all that timber peeled before I started working on it. Because otherwise, if the timber wasn't peeled, why, it...that bark stays wet and it rots the timber pretty quick?

BC: How did you go about peeling it? Was it by hand, or did you have some—

LC: No, just with a drawing knife. Couple of years, I had a boy with me to peel that timber. He'd start peeling on it while I started to hew, and I had about 1,000 feet of hewing on some of that too.

BC: What do you mean by hewing?

LC: I'd split it with a broad ax and squared it up.

BC: So after you got done hewing and peeling, what next did you have to do?

LC: Then I had to put it around in position and get it set up on some poles or something so I that I could get under it to put the bolts in. to put the.

BC: After you got done with...just describe the process that you went through after the bolts. Then, right next, step by step.

LC: After got it put together—it took about two or three days—then I had to have about 600 feet of lumber hewed to put a floor in the thing for the hay to slide on out of 1 by 4s. Usually got that at one of the local sawmills around the country, and...

BC: Okay, after you got done with the floors, now, on the beaver slides, how did you get them how they're built? They're built like a triangular...you've got triangular kind of legs on them with poles coming up like, at a kind of degree angle. How did you go about getting them up? How did you set them up?

LC: Well, I started them up...after we had them bolted together on the ground as much as I could, I used an A-frame—put two poles together and used that to start them up with them flat on the ground and pulled them up with a pickup. After I got them pulled up, I had iron stakes that I drove in the ground, and tied them there until I could get a few of them, both sides, bolted together a little bit.

LC: You said you needed cable. What was that for? How did you go about setting it up and what was it for?

BC: The cable?

LC: Yeah.

BC: The cable—there was about 250 feet of cable that went up, had to go up through a...It had some pulleys on top, and some, one, on each side and then two or three down on the bottom. That cable was threaded through there so...and the end the cable was hooked on to the...we called it the basket where they put the hay on. The ends of the cable was hooked up onto that, and it was fixed so it could hook onto the middle of the cable then and pull the basket up and push the hay right up the slide and over the top into the stack.

BC: Okay now, I've been told that you used a different design than most. Why don't you tell us what that was, and why you decided to use it?

LC: Well, I put in a few extra braces that wasn't in the plans to start with, and I finally got...by the time I got done, through building them, I quit about 12 years ago. I had them braced up pretty good so they hardly ever had trouble with them.

BC: Well, Dad—Jim Christensen—described it as a crossbar. Exactly where did you put these new braces?

LC: Right on top. The arm—we called it the arms on the sides of the derrick where the basket run up the slide—the only thing it touched was the main slide there was rollers number on basket. I had rollers on each side of the basket, and they'd made up those sides, which had strips of iron—1 / 8 by 2 iron [strips]—nailed onto the sides for those rollers to run on.

BC: And this crossbar just kept it more steady?

LC: What?

BC: The crossbar just kept it steady, or was it meant to stop the basket at a certain place?

LC: No. Whoever was pulling the hay up had to watch so he didn't go too far and hit the top of that thing. Because several of them had been broken, and I had to go and repair them. There easy to break if you hit the top with a load of hay.

BC: And the bar prevented this.

LC: What?

BC: And the bar prevented this?

LC: Yeah, that's right.

BC: Okay. [pauses] Why don't describe how they were used? First off, I'm thinking that balers were around. Why were they used over balers?

LC: Well, a few of them did use balers, especially down here on the smaller ranches. But Mark Clem (?) was one of the big ranchers in the Big Hole. He told me that he could put up hay for a third of the cost with the beaver slides that it would cost him to bale the hay.

BC: So it was cost—

LC: It was just a matter of getting a job done cheapest.

BC: Okay, now how are these slides used? How did the ranches go down using beaver slides to pile their hay?

LC: Well, they had to pull them around. They had several spots that you'd pull that stack into, and put up the hay there for quite a ways. Usually had it spotted so that the buck rake could push the hay downhill instead of uphill so they usually pushed that hay downhill. Then make it

another yard further on down so it makes a lot of difference just having that—the hay on the [unintelligible] grade like that. [unintelligible] fix it so you'd go downhill with the hay.

BC: So they get the hay all together. Where did the beaver slide really come into play here for piling hay?

LC: Well, they had to cut the hay with mowing machines, rake it. Usually rake it up in windrows. Then they picked it up with buck rakes that they had built on the running gears [running boards?] of an old car. They'd drive them around the field there at 15, 20 miles an hour, bringing that hay in was a lot faster than the horses.

The first beaver slides... [pauses]

[Break in audio]

It was along in the 1920s, I think, when the beaver slide was first used in the Big Hole, and it was built by a man named Herb Armitage (?). He built them for a few years, but they were small and a lot lighter than the ones that I built later on. [pauses]

Just a minute.

After Herb died, there was two or three other guys. Andy Danielson (?) built a few of them. Jay Nelson (?), Jackson [unintelligible], Joe Harbor (?), and Fred Hershey (?). There was quite a few people went to work building those slides, and they even had them, used them clear up in Oregon. Dave Hershey used to go out there and built several slides every year. Then I built them over on [unintelligible] in Idaho and then over at Lewistown, Montana. Used to travel around a good deal to build those things.

[pauses]

I can't think of anything to say.

BC: Okay. Now, let's get back on the subject of how they were used. They get all the hay collected?

LC: Yes.

BC: Now, what would they do after they collected the hay so that they could use the beaver slide? How as the beaver slide used?

LC: Well, I'd like to draw you a diagram of it.

BC: No, you're going to have to describe it on here first, Grandpa, and then we can do that later because diagrams don't work too good on tape.

LC: No, they don't.

BC: So just use your best words to describe how it was used. You're not going to be judged here.

LC: Well, okay. After they got the hay windrowed, ready to go in the stack, they used to take those buck rakes that was made on the running gears of an old truck and buck it in. They'd haul that hay for, oh, quarter or half a mile, and do it a lot faster than they could with horses. So they used all machinery, or part machinery. When they got the beaver slide located where they want to build a stack of hay, which usually was on a high place, because most of that wild hay ground is just like a big swamp anyway certain times of the year. So they'd stack if they could on a place that was a little bit higher. Then when they pushed it in with the buck rakes, the basket—we called it—was a separate piece from the main beaver slide, and it rolled up and down and pushed that hay up with the cables hooked on to that. They'd buck on a load...some of them would buck on two or three loads of hay on the thing before they'd start up, but then they'd pull that basket up and shove it on up over the top.

BC: So when they grab hold of the cables, you know, there was two cables here, right?

LC: Yeah.

BC: So what would they use to pull those cables? Were they using cars or were they using tractors?

LC: They usually used a tractor or truck. Some of them had rear wheels and stuff mounted on an old truck or something for a hoist. They had the drums on that so they'd wind them cables up on them drums and pull that up that way.

BC: Now just in the Big Hole and Horse Prairie are, what ranches did you build the slides for?

LC: I built slides on almost all the ranches on Horse Prairie and most of them in the Big Hole. I was working at that for, from 1949 until about...well, after 1970.

BC: So there you've got real older ones and then real new...well, relatively newer ones? So some could be considered historic and some wouldn't be consider historic.

LC: Yeah. Now, they've took the pattern off of the old beaver slide we used to build out of timber, and they're building them out of steel now.

BC: What do you think of the new steel ones? Are they just as good, or—

LC: Well, I've talked to some of the ranches that use them, and they say they're all right. I myself thought that it wouldn't work, because I figured if they ever sprung those girders and caught them on the sides there, I've heard that they have to cut them apart with a torch again and rebuild them. But they seem to have got by that all right. There's quite a few of them using those steel beaver slides now.

BC: Okay. Do you know what the oldest existing beaver slide is you've made that is left on each ranch and about where it is?

LC: I know the first one I built was, but I don't think there's anything left of it now.

BC: Where was this?

LC: What?

BC: Where was this? Where did you built it, and—

LC: It was built for Jimmy Barrett (?) up Horse Prairie. That's the first one I ever built by myself. I did work with him—Red Wilkinson—and built six or seven of them one spring for that.

BC: Okay, the first one you built, how about did it come about? Did the guy come up and say, "I'd like you to build a beaver slide for me?"

LC: Oh yeah, they'd come and order beaver slides, sometimes a year ahead of time, give me time to get the timber out the next year and get to the slide made before they needed it.

BC: With the first one you built. How did Mr. Barrett know to come to you to do it? Was you recommended by someone, or did he just know that you had built them before and you knew how?

LC: I never did use a blueprint or anything. I had it all in my head—all the measurements—because I'd worked, one spring I had to learn some of them later on. I worked that one year with Red Wilkinson, and I knew most of the measurements and never did use blueprints.

BC: So you were recommended to Mr. Barrett? When the first one that you built, Grandpa, how did he know that you knew how to build one? Were you recommended to him, or did he just—

LC: When I built the first one, I had to go back with some alder wood built the year before and take measurements again so it took a little while to get that first one together. After that, I remembered the measurements pretty well, and I didn't have that trouble anymore.

BC: How long did it take you to build a slide? How long did it take you to build the first one, and then the others after that?

LC: Well, that first one, it took me about a week. But after that I got so I built a lot bigger and heavier slides and put wings on them to fold them the size of the stack so that didn't need any stacker. That took a couple of weeks to build one of them.

BC: Now, you said the word "stacker." What do you mean by stacker?

LC: Well, that's the derrick. They have different terms for the stacker or the beaver slide or derrick. A lot of them, they use all three of those.

BC: Then in the first ones, they would just pile the...the hay would be taken over and piled just in a pile? They didn't have any way to contain it?

LC: No, they didn't have any way to contain it. Later on, they got to building backstops. I built those too. That was just kind of a wall that they built out of poles and then stretched woven wire over it. Sit on the back of the stack to hold the back of the stack.

BC: So that it would stack...so that it would ride [unintelligible].

LC: They there was a site of wings that folded around towards the front of the derrick when they'd move it, they'd fold them back around and that left just a regular square in there to put the hay stack in. Didn't do these stackers any...what I mean is... [pauses] Hay diggers, using the hay diggers too—

BC: Now, a hay digger is what?

LC: He's the man working in the hay there.

BC: Oh, you mean someone that actually had to go up there and throw the hay—keep the hay from—

LC: Yeah, that's right. We called them stackers. There was the stacking crew. Sometimes over in the Big Hole, they used to put that hay up so fast, they'd have a man on each corner of that stack, and then trim it up a little later after they got it up. But hay went up fast.

BC: So the first one took you about a week. The ones after that took you a little longer because they were bigger?

LC: Yeah, that's right. They got to building them wider, and putting great big fur skids under them.

BC: About how long was that to build one of the bigger ones?

LC: Oh, it'd take, sometimes, two week.

BC: Two weeks? Okay, now what you were describing the loader...or the thing with the wings. What did you call that again? Forgot that.

LC: Back stop?

BC: Back stop, yeah. Who started using that? Did you start using that first, or was that an idea that someone came up with later?

LC: I don't know. I don't think I built the first one, but I started about the time the first one showed up, I think.

BC: The back stop—

LC: I couldn't take credit for that.

BC: Now, the backstop, was it hooked up to the derrick itself, or was it—

LC: Well, someone had it...fixed a team so they could hook it on behind the derrick and just tow it right along. Whenever they got where they was going, why, it was already spaced back there, right length for a stack of hay. They'd just unhook the cables and throw them around the sides and pitch hay over the top.

BC: So it wasn't a separate piece?

LC: Yes.

BC: I see. I want to get back to something here. On the first one that you built, how did Mr. Barrett know that you could built one of these things for him, that you knew how? Were you recommended to him, or did he—

LC: Well, I built some on neighboring ranches at his place there the year before that. Well, that is, I mean, I built them with Red Wilkinson.

BC: So he knew you through—

LC: That time there wasn't anybody else building.

BC: So Red Wilkinson by...when you started up, had stopped building them, or—

LC: Well, no. We couldn't get along together. So I quit him.

BC: He was that kind of...What kind of boss was he?

LC: Well, he was a careless son of a gun. You'd be carrying a log—one of us on each end of it—and those green logs are heavy, and he'd liable to throw his end down and hit the ground without saying anything. Boy, that gives you a jolt, I'll tell you that.

BC: So he was a good...To learn how to build them, was he good from learning how to build them, or was he—

LC: Well, he done a lot of sloppy work too.

BC: Yeah. But in showing you how, was he good at showing you how to build him, or was it a lot that you could...you saw basically how it was done, but you could improve it.

LC: I guess, I knew basically how it was done, but I had to take measurements. Go back to—a couple of times—some of them derricks that was already up and take measurements off them again.

BC: So he really wasn't showing you how to build them. He was just letting you work for him?

LC: That's right.

BC: Did he kind of treat this as a trade secret, or was he just...he just didn't want to spend the time teaching you?

LC: No, it wasn't any trade secret. I had orders for a set of blueprints clear back from Indiana, someplace. Somebody wrote and wanted me to draw him up a set of blueprints, and I told him, "Nothing to it."

BC: [pauses] So did you have a lot of help? Did you hire people to help you with this, or did you do it most of it by yourself?

LC: One summer I hired a boy—he was about 15 or 16, 17, something like that—to peel the poles. He'd get the poles peeled while I was building the derrick. Big help. He wasn't with me...helped me on six or seven of them, I guess. His dad, at that time, was over in the veterans' hospital [unintelligible], and I give him a job just...kind of hard up and needed a job, and I gave him a job helping me with the derrick. Still a good friend of mine, the boy is.

BC: Did you have your family help you work on them a lot then?

LC: Did what?

BC: Did your family help you? Were your sons and daughters old enough to help you with this?

LC: No, no. I never did have any...Reed (?) helped me on two or three of them, but—

BC: Reed is who?

LC: Reed is my step-son. He was Sara's (?) son before we were married.

BC: So he helped you out on a few of them.

LC: He did on two or three, two or three derricks, but he wasn't dependable. We'd go to a town where he could get a few beers, why, he'd be off drinking beer someplace. So I couldn't get along. He was a good worker, Reed was.

BC: So most of them you did by yourself.

LC: That's right. I had to have ropes. I usually used one-inch ropes—took four of them, about 60 feet long—to pull them up and tie them while I get them put together a little bit.

BC: When you were out cutting timber, or lodgepole, how did you...what was your determining factor in which one to use and which one not to use? How did you decide which one to use?

LC: What timber to use?

BC: No, which pole was good and which one was the right pole for what you wanted?

LC: There are different things on a derrick, use different size timber. Eight- and ten-inch logs... [pauses] Took about two dozen, 4-inch poles and six or seven 4- to-8-inch logs.

BC: So you're talking width?

LC: Yeah. I couldn't give that to you certain to build a derrick, but—

BC: Okay, now, the smaller ones—the three to four—now, these were used—

LC: Just brace poles.

BC: These were brace poles.

LC: Part of them was used for the basket and pull the hay up.

BC: And the logs were used as the...what were they—

LC: Uprights. Then those...let's see, about four or five cross logs on the skids. And...

BC: How big of a log did you have to use for the skids? How big—

LC: The skids had to be 32-feet long and about...usually got them around 13 inches on the buck. Then just hew the sides off of them, just the sides, so the top and bottom would be round yet.

BC: When you went out and you were cutting these timbers, how long did you have to have them so that they would be long enough?

LC: I just them full length. Then hauled them down...usually worked a lot of them up in the wintertime there at home. Whatever I had to cut off, I made firewood out of.

BC: When you chose a log, how high did it have to be? What was it's length?

LC: Well, them two arms, we called them on the derrick--the ones out on the sides—for the big derricks, they had to be 56 feet long.

BC: So you'd have to have fairly large size logs?

LC: I'd take out stuff in the timber—was hard to find too—that would square out 5 by 6 clear to the end. I'd usually get...couldn't find them most of the time, so I'd get the full 56 feet out of them, I got to splicing them. Splice ten feet on the end of them, and then put [coughs] a piece on top of that.

BC: How did you splice them? How'd you go about doing that?

LC: See here now, say this is...cut up like this—

BC: You're going to have to describe it, Grandpa, in words. They can't see that on the tape.

LC: Oh, that's right.

BC: [laughs] So you're going to have to describe it in your own words.

LC: Just make a diagonal cut in each end of the splice so it'd fit on there and somewhere close to fit—like one piece would.

BC: How do you go about making it so that they...how did you brace it up so that you wouldn't...so that it would hold? How did you get it to hold there?

LC: Where the splice was?

BC: Yeah.

LC: I'd like to...

BC: Wish you could see it?

LC: [laughs] Yeah.

BC: Well, what kind of materials did you use on [unintelligible]—

LC: See here now, we won't use this, but [unintelligible] like this—the bottom piece.

BC: So the bottom would be sloped diagonal and that would be down?

LC: Cut it like that, and when it got up to here, this [coughs] 5 by 6. Then I'd cut the other piece so it was the same length and fit them right in there and put four bolts in.

BC: So in a way, you cut a joint?

LC: Yeah.

BC: So you used kind of dove-tail joint on it? Or was it more of just a square joint?

LC: Just a square joint like if it was...if this was a piece of the log here, [coughs] put it on this was for one of them.

BC: I see how you did it. So you would cut a square...this one end, so that it would have open part to the joint, and then you'd cut one end so it'd have the long part—the part that was [unintelligible] and connected to—and then just the [unintelligible]—

LC: You usually put the short piece that was bolted on the bottom, and have that on top...top piece as a splice. Do that. I could draw a few things that wouldn't have to go on the tape, but you could get a better idea yourself what that was like.

BC: Actually, they probably could use [unintelligible; LC coughs]. It wouldn't hurt, later, after I turn off the tape, to [unintelligible] diagrams to go with the tape.

Okay, when you were getting the logs and stuff, if you couldn't find it right close to the road, what would you do?

LC: Well, I started out looking for timber and hunt for two or three hours, and finally come back and cut the first ones I'd seen. It's hard to find that timber in the right length and everything.

BC: But if you found some stuff that was away from the road, so that you couldn't snake it back out to the road, what would you do then?

LC: There was times that I borrowed horses, if there was any horses available around there. There was one guy, he used to have a team up there, and he used to...using them for pack horses, packing up salt for the cattle. I would get one of them horse and mules and snake the timber with them. I got horses several times and took them up. Get the timber cut, and then get a horse to snake them out with. Couldn't get through the timber with truck.

That was the worst headache of the whole things was getting that timber out.

BC: That's why you probably charged so much more.

LC: Well, no, I had a fixed price. I usually had a few places where I could get that timber out pretty, pretty good, if you could make it with a truck.

I could explain the workings of those derricks a whole lot better if I just had a white board or something to sketch it on.

BC: Yeah, we should have video tape here instead. [pauses] Let's see, I'm running out of questions.

Okay, on the big ranches using the beaver slides, how long did it take from start to finish to get all the hay up in stacks?

LC: On each [unintelligible]. I've seen a stack of hay go up there in 30 minutes. About three buck brakes push that in there. Would be over as fast as they'd go up and down that basket on the derrick.

BC: For the whole ranch using the beaver slides, like from the...how long did the haying season last when they were using beaver slides?

LC: They usually started about 30th of July and most of it was all up in a month from then.

BC: By August, by August 20th?

LC: Yeah, August 20th. There's a few slow ones that [coughs] wouldn't get it that fast. But they used to all figure on...all of them use to figure on having hay up before the rodeo, and that was the beginning of September.

[Break in audio]

LC: Will that go through here?

BC: Yeah. What was your most memorable incident? What's one of the things that really sticks out in your mind?

LC: Well, I'll tell you about. I got some timber out for Dick Hershey (?) over in the Big Hole, and it laid there that winter. Then the next spring, why, went over to build that derrick. I got it all peeled and hewed and everything—ready to put together. [coughs] It was on the big ones, [unintelligible] has the big heavy fur skids on it. Got it all put together and even put the lumber on. He wanted a solid floor on it too, because a good deal of hay goes down through them slats, you know, and fouls things up down underneath. So got it all ready, and the use to tip it over backwards to put that cap on—[unintelligible] right on top.

See, I forget whether... [pauses] Yeah, I think I had the...I put the cap on. He was getting ready to let it back down, and had a Caterpillar on one side of it and my truck on the other side of it to let it down easy. We started letting that down, and the damn rope broke. Fell down, popped the top of it, cracked them timbers right at the top of the uprights, and it didn't break them clear off but it was kind of a green [unintelligible] break. That made me so damn disgusted. I told my partner, I said, "I'm going to Wisdom to get drunk." [laughs] So after a while, here come that guy's wife out—Dick's wife come out there—and says, "You gonna be here for supper?" [laughs] She heard me say that.

I got some irons up, and it was all right anyway.

BC: If there was a problem with the derricks and they need to be fixed, what was usually the biggest problem with them? When they needed to have you come out and fix them, what was the thing that they needed fixed most?

LC: Putting new skids under them. The skids would wear out. I used to always have a bad time in the Big Hole there for several years. They ain't no high ground over there. They pull them derricks up there, and put them up on some poles to keep them off the ground, you know. And the mosquitoes, my god, I've never seen so many mosquitoes in my life. I worked in them six weeks every spring [coughs] building those derricks—

[Break in audio]

BC: When you had to make these repairs, how much did you charge to repair?

LC: Oh... [pauses] I forget. It wasn't always the same.

BC: Well, what determined how much—

LC: [coughs] What?

BC: What determined how much you charged? Was the type of repair it had to be, or difficulty in having to repair it, or—

LC: Well, most of the time those skids...If I got skids out and put them under myself, I'd usually charge 75 or 80 dollars for it. It's depend on where the work had to be done and everything. I didn't always charge just exactly the same amount.

BC: This concludes the interview. It is February 14, 1988.

[End of Interview]