## FREDERICK "FRITZ" CRAMER

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Interviewer: Pat Hanson — Transcriber: Marilyn Misner

Cramer: Well my name is Frederick Cramer; mostly everybody knows me as Fritz Cramer. I was born in The Dalles, here, February 13, 1916, and I became interested in and knowledgeable about the fisheries here, because my dad was a commercial fisherman, here on the Columbia River, and I fished with him in the summers from 1931 through 1937, when I was in high school and Oregon State. We dip netted, for salmon, at the fishwheel number three channel as well as over on Wasco Island and Memaloose Island; these are all in the Big Eddy area of The Dalles. This was a spring fishing location and a summer run fishing location for high water, and we also ran set gill nets in the eddies, in that area. And, ah, our camp was at number three fishwheel. In the Fall of the year we moved to Celilo, over on Chief's Island, and my dad and his cousin, Ernie, built a hanging scaffold from the basalt on Chief's Island, at the cul-de-sac on the Oregon side, and no one had fished that particular place before, and we fished there in the fall of the year, for the Fall run salmon, and, ah, we dip netted there. I might say there's two different types of dip nets. There's the type that stationary types that are tied in with wire, on each side, and there's just hoops shoved down into the water, in an eddy. These tiny eddies were next to the swift water and the basalt, and the salmon swimming upstream would hit these little tiny eddies along the shore. because it was; the current was not as fast there and it was easier for them to swim upstream. But at Big Eddy, I mean at Celilo, it was a different type of fishing there. The water was just swiftly flowing, in this place where we fished, and these were; we used the long handled dip nets, where the net, the salmon got in the net; the net would slip down over the hoop, and they were not tied in like the stationary dip nets were. And, so, there were those two basic types of dip netting.

One day, this is truth, it's not just a fish story: we had two fishing platforms there on Chief's Island, and, ah, the four of us caught seventeen tons of Fall Chinook, there, in one day, on two platforms, dip netting. And, we always had, ah, lot of spare dipnets that was resting on the platform and against the wall with a rock, and when one net got a hole in it, why we wouldn't stop to repair it, we just, simply pick up and start using another net. And, ah, two of us would work on the platform, at the same time. One would sweep, throw the net in the water and hang onto it as it went down stream, and then when

the fish got in the net, the other person to us would help pull the net up onto the platform. And, ah, when they were running that heavy, the problem was not to catch too many at one time because they just tear the net to pieces. And, ah, I remember that particular day, we got two cents (\$0.02) a pound for our Chinook, and that was forty dollars (\$40.00) a ton, and, ah, I remember when we were fishing up there, we got only a half a cent (\$0.005) a pound. And I remember times when you couldn't even sell the fish because Seufert's Cannery was getting enough salmon with their seines, below Celilo, to take care of their canning needs and they didn't need to buy any salmon.

These were during the depression times and the farmers would come down and they'd trade the hams, and bacon, and potatoes, and corn, for salmon. And I remember, one time, my dad got a live turkey traded for some salmon and we built a little pen, out in the back yard, and kept it until Thanksgiving day.

But, anyway, that's when I fished, thirty-one (1931) to thirty seven (1937), up there, and, ah, so that's how I became acquainted with it.

My Wife, Edna Mae, is the granddaughter of Frank Seufert, who, with his brother, Theodore (Ted), were the co-founders of Seufert Brothers Company, here in The Dalles, a pioneer salmon and fruit cannery, here. And her father was Arthur Seufert, who was a longtime president of Seufert Brothers Company, so she has a lot of interesting memories of Seufert Brothers Cannery. For example, I could tell you a lot about those things, too, if you are interested.

Hanson: Sure, sure.

Cramer: Ah, let's see. Well let's start back in the spring of the year. We fished at Big Eddy and we lived at fishwheel number three; we slept over night there. We, ah, cooked our own meals. We'd get up early in the morning and run the set nets; maybe around four-thirty (4:30 A.M.) in the morning. These were the set gill nets; this was not dip netting, but we had; not only dip netted but we had set nets; set gill nets in the eddies. We run those set nets first and then after that, we'd come back and have breakfast; then we'd row out; in those days we didn't have an outboard motor, we'd just row our boats around up in there. We'd row over to Wasco Island, for example, where we'd row over to the number, what we call number three channel, between Wasco Island and Memaloose Island, and sometimes we fished, also, right in the fish-way channel of number three fishwheel. Of course the wheel was not running then, but we fished in the channel of the wheel. So, then we'd fish all day and then, late in the afternoon, we'd run the set net again; running it; I mean

running the net into the boat and taking the fish out and putting the net back into the water.

So, this is the way it was. We done our own cooking; pretty greasy cooking, you know. We ate a lot of salmon and shad roe, and sturgeon; we also fished for sturgeon up there, too.

Hanson: How did you fix your shad roe?

Cramer: Well, we'd just fry it, you know. And, ah, ah, we drank river water. I knew a lot of Indians, there in Big Eddy area, and I knew quite a few at Celilo, but this was a Spring fishing site, and we fished there through the Blueback season which peaked, here, around the fourth of July, in The Dalles. And, after that, why, the water got low enough that the fishing sites were not very good any; there wasn't; the fish didn't hug the banks because the water was so much easier for them to swim in. So we didn't fish there after, about, oh, the twentieth of July. Then we would go to Celilo on the tenth of September, and fish up there.

Hanson: So you had a month or so off to . . .

Cramer: Yeah, that's right; the season closed, up here, from August twenty-fifth to September, the tenth (8/25 - 9/10), to allow fish to proceed upstream, and then the Fall fishing season started September, the tenth (9/10). And that was probably one of the greatest tourist attractions in the State of Oregon, was Celilo Falls. People would come and watch the Indians fish and it was very interesting. I could just sit up there all day watching them fish, you know.

See, Celilo was not on a Reservation. It was a historic fishing place for the Indians, but it was not on a Reservation, so white men could fish, in common, with the Indians, at Celilo, so that's how come we fished at Celilo.

Hanson: Did the white people buy fish from the Indians, at the Indian fishing site?

Cramer: Yeah, yeah. Ah, all the land that the Indians fished on, at Celilo, was on private land. It was owned by Seufert Brothers Company. They owned land on both sides of the river, from Seufert's Cannery, clear to Celilo. They bought this years and years ago, but, ah ah, Seuferts bought salmon from the Indians, at Celilo. Other buyers bought salmon from the Indians, at Celilo, and, of course, the Seuferts bought salmon from the Indians and the white people, at Big Eddy, also, and they had salmon from their fish wheels, and they had salmon from their seines, which fished below Celilo, in the fall of the year. So, anyway, it was a unique experience. Far as I can tell, right now, there might be other ones alive, but I think, myself and Jack Miller, in The Dalles, are the only two white guys, still alive, that fished at Celilo; dip netting with the Indians at Celilo. I think that's true. There could be others but I just don't

know them. See Jack is older than I am. Jack is about a couple years older than I am, so, and we were kids when we fished there, so people that fished there would have to be pretty old, now.

When we fished there, in the spring, why, my dad and I fished in the, in the little wheel tenders shack, up on top, and his partner, Ernie, he slept below in another little building, where the cook stove was. But, in those days, the season started Sunday night at six o'clock, and it ended Saturday at noon. It had a weekend closure, from Saturday noon 'till six o'clock on Sunday night, during the spring and the summer fishing. In the fall of the year, why there was no weekend closure. You could fish straight through.

Hanson: This was, all, after the wheels were outlawed, correct?

Cramer: Yes, that's right.

Hanson: When were they, just for the . . .

Cramer: Well, the fishwheels, ah, let's see; in Oregon, they were voted out in the November elections of 1926, and effective in 1927; that's in Oregon. And, in the State of Washington, they were voted out in the elections of November of 1934; effective for 1935. So, really, the fishwheels were out in 1927, in Oregon, and 1935 in Washington.

Hanson: So, when you mention fishwheels, when you were fishing, they were just there, but weren't functioning?

Cramer: They were still . . . earlier years that I fished up there, they were still running on the Washington side, because they ran up there, 'till, through the 1934 fishing season. But, I never did see a fishwheel run on the Oregon side. I mean, I did see one run, but at the time, I was not fishing or not interested in it.

Hanson: Did they tear them down or what happened to them?

Cramer: Well, they just stayed there until the Corps built The Dalles Dam, and then in the reservoir clearing operations, why, they burned most of them down. The last fishwheel to stand up here, was the Phelps Wheel, which was owned by Seufert Bothers Company, and it was located just about, oh, seventy-five yards upstream from the present Dalles Bridge, on the Oregon side. And, ah, fact, ah, the concrete dip ways, you can still see that on the Phelps fishwheel, up there. An interesting thing about that fishwheel is in the historic flood of 1894, which is the highest ever recorded here at The Dalles. All of the fishwheels the Seufert Brothers owned, except the Phelps wheel, were either swept away or badly damaged, except the Phelps wheel. And that Phelps

wheel, never again caught as many salmon as it did, as it did in the flood of 1894; most of them are Blueback or Sockeye. So, it helped a lot in paying for the repair of the damage on the wheels, and it never again, caught one-fifth as much as it did that year. In the flood of 1948, which was the second highest, I lived in Red Bluff, California, and I drove up here just to see the high water. My dad was fishing in number three fishwheel, there, dip netting, and the rising waters finally crowded him off the fishing platform, but looking downstream from number three fishwheel, at that time it was Chinook Salmon; most of them, and gosh, there was just thousands of them in the water; you could just see their backs and they were surfacing, and I imagine that's what happened to the Blueback, below the Phelps wheel in 1894; why it caught so many of them.

But the fishwheels, of course, were a very ingenious device, and, ah, many people thought they probably originated in Alaska, but the research that Ivan (Ivan Donaldson) and I did, doesn't lead to that conclusion. In fact, Judge Matthew P. Deede, in Portland Circuit, District Court Judge, in Portland, it's in the book; 1884, there is a result of several applications for a patent, by some of the fishwheel operators down below. Finally decided that the idea was first conceived in the United States, on the Pee Dee River, in South Carolina, where they had shad fisheries. So, ah, he concluded that none of them got a patent for the idea, but they just made things better, but the basic idea was not theirs. So, we traced the beginnings of the fishwheel, Ivan and I, to 1829, in the United States. And we tried to . . . we contacted people in France, and in Great Britain, in Norway, but we never received any information that would lead us to believe that they were there any earlier than that. There were fishwheels. We had pictures of some crude fishwheels from France, but, anyhow, we think that the fishwheel idea went to Alaska, during the gold rush up there, where people had seen fishwheels here; brought the idea up there. In fact, Alaska Department of Fish and Game, told us that they felt the fishwheels did not originate in Alaska. So, anyway, there simply were, generally, three dippers with wire mesh, and the current of the river would turn the wheel, and as the wheel turned and came up, the fish that were swimming by would get caught in that dip and finally fall toward the axis of the wheel, and there was a chute built there, and the fish would then slide down the chute into a fish box. So they had to be watched, the wheel had to be adjusted according to the water. You couldn't have the water lever above the axle of the fishwheel, or else the wheel wouldn't turn . . . I mean the fish could escape. You tried to keep the bottom of the dip as close to the bottom as you could, or else they could swim under it. And, of course, some people tried to devise incline-plane traps. I mean, incline planes to lead them up to the right height, as the river rose and had to raise the wheel up, well, they put incline planes underneath there, so the fish couldn't go underneath the wheel. But they were very ingenious devices, and they ranged in sizes of course. They are in the book. I can't recall just right now, some of the various sizes; but they were big; probably, some of these up here were about thirty-two feet (32') in diameter, and about ten to twelve feet (10-12') wide. They ran at various speeds, but the best speed for catching salmon, seemed to be between about five or six revolutions per minute. If it was slower than that, in slower water, why, the fish could probably swim out, whereas sometimes they'd go so fast, that they'd throw the fish out of the fishwheel. There was a fishwheel up here, called the cement wheel, which was one of the three best up here. Why, it was running at twelve RPM (Revolutions Per Minute), and it was too fast. It was throwing the fish out, so what they did was put some baffles upstream, just to slow the water down and it caught fish much better.

The three best fishwheels in this area were: fishwheel number five. They had a five-mile rapids, and I think that's probably was the best one on the Columbia River. It made the highest daily catch we could find: it was thirty-five tons in one day, and I think in one season, it caught two hundred and nine tons. And, ah, that was a high-water wheel, built for spring fishing. Another great wheel was this cement wheel, which I mentioned earlier, that, it was a portable wheel. They take it down after the fishing season was over; that little narrow gauge track; leading to the wheel over to the shore to the Oregon bank, and they'd take it apart and take it over there and store it for the winter. Then in the spring they'd bring the parts back out and put it together. That was a good fishwheel, and then the Big Tumwater Number One fishwheel, at Celilo, was also a real good. That was a Fall fishing. In fact that Tumwater Number One and Tumwater Number Two, at Celilo, were the only fishwheels Seufert Brothers had that were designed, or set to fish in low water, in the Fall. So that was a great fishwheel.

Let's see, ah, I think the first fishwheel on the Columbia River was built in 1879, by Samuel Wilson, and it was located on the Washington shore, upstream from Bonneville Dam, about where Fort Reins is located. I think the second fishwheel was the Thornton Williams fishwheel, and it was on the Oregon side, upstream, slightly, from Bradford Island. And the third fishwheel, I think, that Ivan found (it was in the book), was by Eric Inquist, and that was on Bradford Island.

The first fishwheel, up here, was built by Seufert Brothers Company in 1885, and he simply called it fishwheel number one. And, then there was the number two fishwheel, I think, was built the same year, and it was just immediately downstream from the mount of Fifteen Mile Creek, which enters the Columbia right by the Cannery. Number three fishwheel, which I spoke about earlier, was built, I think, in 1886, and then they went on up the river; number four; number five; and then the fishwheels at Celilo.

There was another guy, up at Celilo, in 1890, by the name of I. H. Taffe. He was . . . he had a little cannery up there and he had three fishwheels. He had

a channel he blasted out of the basalt and one fishwheel sat in there. But Seufert bought him out and his fishwheels were not very good.

Hanson: Who decided where to put, and why that they put them in specific places?

Cramer: Well, in the lower river, for example, where the water was not quite as swift as it was up here, they put the fishwheels along the . . . close to the bank but they had long leads which led out into the river which, in other words, guide the fish, coming upstream, they were guided to the entrance of the dip way.

Hanson: Would that be like a long fence type of situation, to herd them or coral them?

Cramer: Yeah, well just to lead them and they found out that horizontal bars on the fence, were better than vertical bars, because the debris would wash away easier from the horizontal bars, whereas the vertical bars, the debris would hang up and have to be raked off all the time.

Hanson: Tree limbs and ...

Cramer: Yeah, so they used that and the salmon, mostly, swam close to the shore, anyway, and so they used the leads down there. Up here, it was a little different story. Up here, they generally blasted channels in the Basalt. An eddy below and then they would blast a channel, just about the width of the fishwheel, maybe ten-twelve feet wide, and then the channel would lead back into the river, upstream from the fishwheel, and then they'd set the wheel right into this channel, rock channel. So, there was a little bit different approach between down there and up here but the wheel, itself, was the same but the method of leading the fish to the wheel was a little bit different. Down there, they'd use these long fish way leads. Up here, the generally blasted a path in the rock. Of course, there were the stationary fish wheels. Then you had the portable fishwheel, or the scow wheels. They were, simply, a fishwheel built on a barge and they were moveable; you could move them from one place to another. And, generally, if there was a place where there was an upwelling of water, say there was rock on the bottom which caused the flow to sort of upwell, you know, why this was a good place to put a scow wheel because the fish would upwell with the water, you see. And so they used a moveable; they can move these things around . . . they tow them around with launches and anchor them. Sometimes they'd anchor them to the side of the bank of the river. And, of course, then they had to remove the fish out of the scows with, ah, put them on boats and haul to the canneries. Both, down in the lower river and up here, they used a lot of launches; boats to pick up fish from the fishwheels and take to the cannery. One of the things they used, more down there than they used up here was, they floated fish down to the cannery with casks, you know, barrels. They would, with a long needle, thread this needle through the eyes of the fish; through the gills; and then they'd attach all these to a large cask and they could transport, generally, between five hundred and a thousand pounds of salmon in one cask. I can't remember the size of these casks, but anyway, because these fish were buoyant in the water to start with, and then they'd mark with different colors; meant different species, you know, and they'd turn them loose. Then they'd have a guy, in the cannery, on the lookout, and he'd spot these casks coming down the river, and he'd alert the guy in the launch, and then they'd go out and pick them up.

Hanson: They'd have to row out and snag?

Cramer: This was probably used down there than up here because in the early days, there was no good road system down there, you see, and this was the best way to do this. They had the portage road on the Washington side, which they used to move fish. Warren used a lot of those from the fishwheels at Cascade Locks. But here, you see here, the railroad came through here in 1882, so early they'd get an old boxcar, on old broken-down boxcar that maybe would only hold about five tons of fish. They'd move them, for example, from Celilo to Seuferts in these old boxcars, and then they had old trucks . . . the old hard-rubber tired trucks they'd use, and wagons they'd move fish with, and then they had the launches that they'd move them by the river, and, of course, when better roads come along, why they'd haul them in trucks.

Hanson: About the railroad cars? Did they sort of drop them in from the top or how did they cram all these dead fish?

Cramer: No, they'd move them in from the side, yeah, you know. I'm not quite sure about that. I think they probably kept them in boxes, fish boxes. Of course, in trucks, they'd simply throw them in the trucks and the launches, the same way. They'd just have a compartment in the launches that they'd throw the fish into. Lets see, ah, ah, the, ah, cannery operation; when the fish got to the cannery, why of course the Seufert Brothers Company . . . (end of tape)

Hanson: Mr. Cramer, we were just starting to talk about canneries, here in this area, when we had to change the tape.

Cramer: O.K., ah, I might say, Frank Seufert was born in New York, and he came out west when he was a young man, and he was going to go to Walla Walla, Washington; at that time it was a territory, and he passed through The Dalles, and The Dalles was a very busy place at that time. It was a head of navigation, you know, the sternwheelers couldn't go up any further than The Dalles, and they had a lot of wool business back here, sort of this trade center, so he decided to stop in The Dalles, and he set up a little business of buying and selling fruit on the north side of Second Street, here in The Dalles, between Union and Washington Street. And, ah, interestingly enough, my grandfather,

he worked C. Nickolson, who had the bookstore in The Dalles, lent him some money to start his little stand. So, he got going. That's where Seufert got knowing about the salmon because he bought salmon from the Indians to sell in his little stand, you see. So, anyway, he got contact with his brother, Theodore, the two of them then bought land and kept buying land until, as I mentioned earlier, they had gotten the land between Seufert Brothers and Celilo, and they established their fishery, and, ah, built fishwheels, and, ah, used seines. But this cannery could can about, ah, I think it was two thousand cases of salmon a day. That was a max; that's, ah, a standard case of salmon is forty-eight, one pound flats, so that's forty-eight pounds of canned salmon in the case, so, two thousand cases. You're talking about several thousand. several. Well it's in the book; and I can't remember the number.

But, anyway, he always hired a Chinese crew for six months, regardless of how many fish were caught; if they caught a lot of fish or didn't catch any fish, he paid them for six months.

Hanson: Flat rate.

Cramer: And they were the butchers. They'd clean the salmon and they packed the salmon in the cans, and all that stuff. And, they were, ah, had a Chinese foreman, and they had a Chinese bunk house for them; he built for them; and, ah, they had a Chinese bookkeeper and they only dealt with the Chinese foreman, and in the seventy some years that the cannery operated, why, ah, they, ah, there were only three Chinese foreman in all that particular time. But, anyway, they started canning salmon the first of May, that's when the season generally, and they kept going until the end of the Fall run in the end of September. And, ah, they, ah, Chinese would never start canning fish on a Friday. For some reason they thought that was bad luck, so they never did start to, you know, they might be right; who knows. So, anyhow, that's what they did. And they had a Chinese . . . they had a place the Chinese kept hogs there, of their own, and the groceries . . . they bought the groceries at a Chinese grocery store in Portland. They were hauled up, once a week, on the train, for the Chinese. And, ah, they also had living quarters, for the single men that worked out there, and they also furnished a house for the bookkeeper, and also for the foreman. They had houses out there the company furnished. And then the . . . they always had . . . they had a cook house . . . then they had a cook who cooked a noon meal, and, God, it was a tremendous meal. The guys from The Dalles used to accidently drop buy around eleven-thirty; twenty minutes to twelve, you know for . . . go talking and then "Oh my God, it's time to eat, isn't it", you know.

And, anyhow, they had all that, and, ah, the ah, they had, ah, they had three grades: the main grade, they had the fancy grades which were the Spring Chinook and the Blueback made up the fancy grade; I think they

called it Annie's Favorite, was their name of the brand. And then the, ah, what they called the choice. That was the next one lower. That was mostly Summer Chinook and early Fall Chinook. I think that was Merimac brand. And then the Silver Salmon, Coho's as they call them now, and, ah, Steelhead . . . they made up the third grade. The meat was whiter when it was canned, and I think they called it Tenino brand. They had other brands, too.

But then one interesting thing; they had a bunch of cats, you know, in the cannery, to keep the mice down. And at the end of the season, they'd make a special run . . . they'd can about twenty or twenty-five cases of the "toulees", just for the cats. And that was one of the duties of the night watchman, was, ah, he'd have to open up a certain number of the cans of salmon and put it out there on the trays, for the cats, and do that every day.

Hanson: You used the word "toulees". Could you explain that?

Cramer: Well, we called them "toulees". They were the real late fall run Chinook Salmon, that spawn in the lower river, like, in those days they could spawn in the John Day . . . what is now the John Day pool area because it is a good gravel bar there. And they weren't very tasty, and the meat was white, and they couldn't really sell them very well, so they just canned them for the cats. The cats loved it.

Hanson: Oh, they didn't know the difference.

Cramer: Ah, let's see, ah . . .

Hanson: May I ask another question? These Chinese . . . they were hired to work for a specific, and did they work, like, every day, if necessary, how many hours?

Cramer: Well, they, generally, just worked when the salmon were there to be canned.

Hanson: So if it was a six day ...

Cramer: They, generally, only worked eight hours, but if they were really crowded, I mean, if there was a lot of fish coming in, they'd work more than eight hours a day. So, but, normally, they would only work eight hours a day.

Hanson: Because, there wasn't much refrigeration, was there — or was there?

Cramer: Well, know, ah, actually, ah, I'd seen salmon on the cannery floor, there, just covered with salmon. And, of course, they'd keep them sprayed with water. But they'd can them right away and, ah, but some of those early Spring Chinook . . . their flesh was so firm that . . . I mean, I've seen this myself . . . they were hand packed. The other kind were machine packed. When they

slice it and put the slice in the can, the meat would, kind, ah, tend to curl up, you know. It would be that fresh, and sometimes they'd have to leave the real early Spring Chinook on the floor, for a few hours, before they could can it.

Hanson: To make it limper?

Cramer: Yeah, yeah. It was . . . they were first grade fish. That's were we got the word Royal Chinook, you know, from the early spring run. But they, also, of course, they also, had their own fruit orchards . . . had apricot orchards, and they bought lot of cherries from the local farmers. Farmers liked that because they'd drive in with a load of cherries, and get weighed out, and they'd come to the office and they'd get paid, right now.

Hanson: Oh, no waiting till the end of the month.

Cramer: No waiting, and they loved that. Then they canned peas. They bought peas and they raised some peas, and I guess they had peaches, also, that they raised. They had, ah, I think it was Harry Mroioka's dad, a Japanese man that ran their orchards for them. And, ah, I now in, you know, World War II, when the put the Japanese in the Concentration Camp, Arthur, Edna Mae's dad, was so upset and sorry, because he'd worked for them for all these years, and was just absolutely wonderful person, and they made him go to this Concentration Camp, you know. But Harry Mroioka, Jr., he was in Edna Mae's class, and mine. We know him real well.

But, anyway, ah, it was quite an operation. Of course, it was, ah, voted out; the fishwheels were voted out, on the Oregon side in 1926, effective 1927. There were a lot of fish fights in the Legislature. The fishwheels, altogether, never caught more than seven percent (7%) of all the fish caught, commercially, on the Columbia River. So, when you talk about numbers, they were quite a minor amount. But the point of it is, of course, the idea was all, you know; they'd claim, "Well, you're catching all the fish", which is not true at all. But, nevertheless, I think the big basic reason was economic, because Seufert, with these fishwheels — gosh, the fish didn't cost him very much, you know. Down below, where you had the seines, and all these guys you had to pay to run the seines, and all that . . . the cost was more per pound than it was up here, and I think that was a basic reason why they were voted out. Of course, the Oregon State Grange supported. They wanted to vote the fishwheels out; they were one of the supporters. And, ah, let's see, the fisherman's union, down there, of course, was against one of the . . .

Hanson: The Astoria area?

Cramer: But, the Astoria newspapers, as I recall, they sided with the people up here.

Hanson: With the wheel people . . .

Cramer: But anyway, ah, the, ah, gill nets, drift gill nets took most of the commercial

catch, and the old fish traps, which were outlawed in 1948; now they were

outlawed in 1948, together with the seines on the Columbia River.

Hanson: Fish traps?

Cramer: Fish traps.

Hanson: Could you describe those?

Cramer: Well, a fish trap was, simply, ah, it has a long lead out into the river, again, to lead the fish into, close by. Then they had a series of ah, of ah, sections in there where the fish kept getting . . . moving forward into a smaller opening that led out, so they couldn't get back out, and they, simply, once the fish were in the . . . well I can't remember the name of . . . the spiller, I think they called it. They had . . . when the fish were there, why they simply got the fish out, mostly with pike poles and, you know, just took them out. But they were fixed locations and the seines were, ah, like they used on the lower river, and also below Celilo Falls, and that is where a boat took one . . . they had . . . well, when they had the horses, they had what they called an Anchor Team and a Running Team. The Anchor Team took one end of the big seine and just held it, on the shore.

Hanson: This is like a big fish net?

Cramer: Yeah, and then the other . . . then a boat took the other end of the net and circled it way out into the river and brought it back to the shore, with the corkline on the top and they tried to keep the lead line as close as he could to the bottom, and they had to have an area where there are no snags on the bottom. And then once that end got back to the shore, then the Running Team hooked on, and took it up the beach as far as they could go, and then another team hooked on. In other words, you made the circle smaller 'till they got everything up onto the beach, you see what I mean. And that's how seines operated. They didn't take as many; they didn't catch as many as the, as the, as the drift gill nets. I don't think. I got the figures in the book and I can't remember. But they took less than, about the, little more than the fishwheels, I think.

Hanson: But they, also, were outlawed, then?

Cramer: They were outlawed in 1948, and then there was a court injunction that kept them going until 1950. And, ah, I had a fish counter at McNary Dam; one of the first fish counters that I hired up there. God — I can't think of her name

now — but she and her husband owned a fish trap, see. And, of course, he died and she ran it. And, ah, on the application for federal employment, you know, you put down, "Why do you wish to work for the federal government?" She said, "I want to get my hands on the long dream"!!!!

Hanson: Oh, good for her!!

Cramer: She was really . . . boy, she really knew her fish, too, you know. But, ah, anyway, she was the gal that got the injunction to keep it going for two more years. Gosh, I can't think of her name right now, but anyway, it was interesting. Ah, let's see, I went out one time with the seining crew, below Celilo, when they had the time; then they used one of these old Army, World War II Dukw's — D U K W — it was a landing craft. They'd pile all the net on this thing and, again, the anchor held it, sped it out circling around but, that was the only time I actually, ever, went out with the seining crew below Celilo.

So, I'd never worked on a fishwheel, but I saw some turning, on the Washington side. I never saw any turning on the Oregon side, but we lived at number three fishwheel, so I certainly knew what they looked like, and everything.

In the high water of 1948; after the flood of 1894, Seufert built another fishwheel opposite number five, to take advantage of another high water, and he called it number six. He built it into another channel at a higher elevation. Well, the water never got high enough to run that fishwheel until 1948. Course, by that time, they were all outlawed, so, ah; and it actually turned then, too, but I don't think it caught any fish.

Hanson: There is a rumor going around, that there was a fishwheel stored somewhere. Have you ever heard that?

Cramer: Well, at one time, yeah, they took the . . . lets see . . . they took the axle and the flanges, on the end of the axle, of number four fishwheel, and it was stored. I don't know where it was stored. It was . . . might of been stored in the basement of Seufert's Cannery, or maybe at the old "Winquat" Museum, which is now no longer in existence. Just where it is now, I don't know.

Hanson: It would be interesting to have access to something like that.

Cramer: Yeah, it could probably be, ah, they're so big, you know, I mean, ah, I would think a model of a fishwheel would be the thing to have. I think it would be real nice to have a model operating, so people could, visually, see what a fishwheel looked like.

Hanson: With somebody describing the process.

Cramer: Somebody describing. I know they have one at the new . . . in the visitors center at the new powerhouse at Bonneville. They have a nice model of a fishwheel there.

Hanson: Oh, I missed that.

Cramer: Yeah, in fact they have some stuff . . . quotings out of our book, down there. And, I was there one day, and the wheel was running the wrong direction. You'd never catch any fish that way, so I told one of the people, down there, about it and, "Oh, O.K., well, we'll change it". It's a nice model, you know. If people can understand what a fishwheel looked like and how they operated, by looking at it; that would be better than a great big one, you know.

Hanson: We were just curious about that rumor.

Cramer: Those parts were stored and they're probably . . . in the book, here, that Ivan and I got — we have a few sketches of a fishwheel, taken from drawings that Seufert Brothers Company had of a fishwheel.

In fact, one of the Japanese there on "Okido"; the northern island of Okido, used fishwheels . . . used a fishwheel to catch salmon for their hatchery operation. They borrowed . . . they used the design of Seufert Brothers Company, to build their fishwheel. We got that from the Japanese Consulate in Portland.

Hanson: Well, I'll be darned.

Cramer: Yeah, yeah.

Hanson: Now you, and Ivan Donaldson, go back a long ways. Could you tell me a little bit about your relationship and then how come you ended up writing . . . co-authoring the "Fishwheels Of The Columbia".

Cramer: Yeah, well Ivan was from Maupin, of course, and I was from The Dalles, and we went to Oregon State and took Fish and Game Management.

Hanson: You were there about the same time?

Cramer: Yeah, let's see, yeah, I knew Ivan down there. I graduated in '38, and let's see, Ivan was '39 or '40, I can't remember quite what. But, anyway, I knew what fishwheels looked like, and, of course, Ivan was down there . . . he . . . a tremendous intellectual curiosity, you know, and so he was interested in fishwheels. I guess it was about, let's see . . . I was at McNary or had just

moved to Walla Walla, around 1955, or something like that. Ivan and I decided, you know, maybe we should write the history of the fishwheels of the Columbia, because maybe if we don't do it, nobody will do it, see. And, ah, lucky that, at that time, there were still people around that had actually participated with fishwheels, fished with fishwheels or worked on fishwheels and knew about them, and they could be interviewed. You couldn't do it now because nobody's left to talk to, you see. So anyway, we did it and it was . . . we spent quite a few years . . . spare time, you know. Ivan went to the University of Oregon and places like that. I spent a lot of Saturdays at the Whitman College Library, up there in Walla Walla, looking up stuff. I spent, I remember, three days one time, down at the Oregon Fish Commission's Lab, at Clackamas. They call it the Oregon Department of Fish and Wildlife now. So anyway, we finally got it done.

Hanson: So, how many years in the making, was this?

Cramer: Well, let's see, it was published in 1971, and we started around '55, so it took us; '55 or '56; so . . .

Hanson: Looking at about fifteen years worth of research and interviews and writing.

Cramer: Oh, yeah, yeah, yeah. Used to, you know, I know one time we advertised in the Oregonian about people who had some fishwheels pictures. I think it was, and we got, from that we got the picture of Samuel Wilson and his family. It's in there. But he was . . . built the first fishwheel on the Columbia. You know it was just, ah, just a random shot that paid off, you know. So, it's about ninety-nine percent being a sloth, you know, tracking down stuff. Just a lot of drafting and redrafting, and redrafting, and stuff like that.

Hanson: You mentioned two different kinds of fishwheels: the portable and the scow. Could you just give us the pros and cons of each one.

Cramer: The two kinds were the stationary and the scow. The scow, sometimes some people call it portable and some call them scow. Well, ah, I suppose, if you had a real good location the stationary wheel was the best, but scows had their good points, too, because they could be moved around and some places, you could fish a scow fishwheel where it would be very difficult to build a stationary fishwheel. And, ah, so, I think though, the largest catches were probably made from certain selected stationary wheels, but there some scows that really caught a lot of fish, too, an awful lot of fish. I know there's a picture near the scow wheel at the mouth of Tanner Creek, I think it was, and, God it's just loaded with salmon, and we had a picture of a scow wheel on the Willamette, below Willamette Falls, and it was loaded with salmon.

Hanson: Was one easier to work on than the other?

Cramer: Oh, I think it would probably be easier to work on a stationary wheel, than the scow wheel, because, one thing about a scow wheel, for example, it was like a boat, you know, and, ah, say you had to get up where the big wheel was on it's bearings, and grease those things, you know; if the scow was kind of bouncing up and down, why it would be quite an interesting ride, you see, whereas on the stationary wheel it would be more firm.

Hanson: So you had to be pretty agile to be on a scow.

Cramer: Yeah, I guess you had to be pretty agile, and then you have to move the darn things around, too, and that was a gloom job, towing them in a launch from one place to another, and then trying to secure them to the banks so that they stay there.

Hanson: So they didn't use anchors; they used . . .

Cramer: Mostly, the ones I saw, they secured them to the bank. I think that's mostly what they did. They tied them with steel cables, to the bank. So each had its advantages and disadvantages, but for certain situations either was — each could be the best for certain situations.

Hanson: When it came to building, for instance, like the stationary ones, what were we talking or thinking in terms of time? How long did it take them to actually get one in operation?

Cramer: Well, I think it took, ah, you'd have to build them, of course. Generally they were built in the fall and in the winter and the early spring, in the low water. It would probably take a crew of six guys, four to six months, to build a good stationary wheel. Most times like, let's see, they would run, generally, from the neighborhood of four thousand to six thousand dollars to build a good fishwheel. There's a lot of them didn't catch any fish at all. They never did pay off, but in those days that was quite a bit of money, and there were . . . is guess they, ah, the most that we could figure out at any one time, was 1899 — I think there were, we counted seventy-six, or seventy-nine fishwheels on the Columbia. The number varied from year to year. Some of them would wash out or be abandoned and new ones built, and so on. But, they're a device now that, ah, they're completely gone. I mean even the evidence is gone, except for this one up here at Phelps wheel, where the dip way is still there, but, ah, they were the most picturesque, I think, fishing device on the Columbia.

Hanson: Oh, they were spectacular.

Cramer: They were spectacular and they were cheap to operate. The river done

everything. The river turned the wheels; the river lifted the fish out of the water; deposited them in the box and all they had to do was to keep them greased and keep the wheel level, adjusted for the water level in the river, and clean the upper end. They'd have a grill at the upper end; debris, something to catch the debris so it wouldn't go through the wheel and tear up the screens. And, ah, they'd have to keep that clear but, you know, one guy could take care of several wheels, like, on the Washington side, they had the Bay Wheel, the Cyclone Wheel, and I've forgotten now and the other . . . there's three fishwheels over there, that they ran, but one guy took care of all three fishwheels.

Hanson: O.K.

Cramer: And, so, when you think of the pounds they could catch with just one guy working, you know, the cost per pound was not bad.

Hanson: I remember reading about sturgeon getting in these.

Cramer: Oh, yeah, they did. My dad told me about, one time, when a sturgeon got . . . well he fished on a fishwheel, himself. There was a guy by the name of Bill Cramer, that had a fishwheel.

Hanson: Was he a relative?

Cramer: No, no relation at all, but my dad fished with him, for awhile, on a fishwheel. But he told me about a large sturgeon that got caught cross-wise between the wheel, itself, and they, you know, heading down toward the fish box, and it actually stopped the fishwheel. I guess they had to chop it to get the wheel going again. But, ah, in those days, I think they were harbor seals used to come up the Columbia River, and the wheel operators had a rifle that they'd frighten them away with, because they'd come in and keep the salmon out from coming into the wheel, you see. They'd swim around in the eddies and keep the salmon scared away. But we used to fish for sturgeon up there, too. We'd use these large seventeen inch stretch-mesh gill nets and we'd make a diamond shape about this big.

Hanson: We're talking like, maybe, twelve inches, or . . .

Cramer: Well, if you stretched it out, it was seventeen inches, so when you make it into a diamond shape, why, it would probably be a mesh about this size. And, a, We would, a *(end of tape)* 

Hanson: When we left off with the other tape, we were just starting to talk about sturgeon fishing, in this area.

Cramer: Yeah, well, ah, we fished for sturgeon in number three eddy, which is below number three fishwheel. We used these large set gill nets, which were tied to the bank; had a cork line on the top and a lead line on the bottom; seventeen inch stretch mesh. And, ah, when we'd catch these sturgeon. See this cannery did not can sturgeon; we'd have to sell our sturgeon to the fresh market . . . the meat markets in The Dalles . . . the fresh markets. So, when we'd get a sturgeon out, and maybe the market wouldn't want one that day, or it couldn't take a couple of them . . . what we'd do, we'd simply tie them up by the tail and leave 'em in the river; tied around a rock. You see, if you're real careful, taking a sturgeon out of a net, they're pretty tough, and, ah, we had a twenty-two foot double-ender row boat and the water'd be sloshing around in the bottom of it. And the sturgeon, if you didn't hurt the sturgeon getting him out of the net, he'd live in that water for awhile, and then we'd take him out and put him back in the river, tie him up, and then when the markets could use a sturgeon, why, we'd pull him out and clean him and take him to the market. But sometimes you couldn't get a sturgeon out of the net until you, probably, killed it to really get it out of the net. They were kind of tricky to get out of the net because, along the lateral line, they had these chutes, which is real tough car..., just about like your fingernail, and they were sharp.

Hanson: This would be along the back?

Cramer: Right along the, right along the side, what's called the lateral line, there, midway between the back of the sturgeon and the bottom; right along the side. And, ah, so anyway, we'd eat a lot of sturgeon up there. I like sturgeon, it's nice white, sweet meat. There were a lot, historically, a lot of sturgeon caught in The Dalles. Most of them in the 1890's, and they were probably fished out pretty well, but there were some big sturgeon caught. But the ones we caught were not real big. Most of 'em were, I'd say, from seventy pounds, to probably the largest we ever caught was not over about one hundred and eighty pounds.

Hanson: Could I ask you a question there? Were you catching the ones that were over three feet and under six feet? Was that rule in at that time?

Cramer: Yeah, gosh, I can't remember that far back, just what the limits were, but I'm sure they had, ah, probably had a size limit on it at that time. But, ah, anyway the largest sturgeon in the Columbia River system is slightly over twelve hundred pounds, and it was caught on the Snake River. But, ah, they're old fish, you know, sort of a prehistoric fish. There's no bones in 'em, and, ah, in 1984, I participated in a American Fisheries Society tour to Finland and the Soviet Union and the Peoples Republic of China; strictly a fisheries trip. And I remember when we were in Leningrad, now called St. Petersburg, why, we talked to the director of the museum there, and, ah, they had ah, he was telling us that the largest sturgeon he was aware of, over there, was about

twenty-two hundred pounds. And they had some stuffed sturgeon, you know, on exhibit, that were really big, I mean, gosh they looked something like the Great White Shark, you know.

Hanson: Oh, they had stuffed them?

Cramer: Stuffed, yeah, yeah, preserved 'em. But they had about five species over there, which is more than we have here. They use them for caviar, which I thought tasted horrible. Tastes like fish, you know, but anyway . . .

Hanson: That, being the fish eggs, it has a very fishy flavor.

Cramer: Yeah, yeah, in fact in China, we had caviar made out of Rainbow Trout eggs. Tasted just like Sturgeon eggs; lousy.

Hanson: So much for that.

Cramer: But, ah, we did catch sturgeon, too, in number three channel. We never caught any with the dip net, but they were caught by the fishwheels, occasionally. In the book there is . . . we have this five hundred pound sturgeon, plus, caught by . . . the picture of, ah, Andrew Venstrum, I think his picture there, beside this sturgeon; caught in the McGowan double fishwheel, just below Cascade Locks.

Hanson: Oh!

Cramer: So, they've caught sturgeon in fishwheels. Well, let's see, the, ah, the Chinese, at the cannery, were hired, as I mentioned, for about six months at a time, and they worked at the cannery during the whole life of the cannery, from about 1880; whenever they started, till 1956, because the pool at The Dalles was raised in March of 1957, and the Corps of Engineers bought their property before the pool was raised.

So, but they didn't use local people for, ah, ah, preparing the salmon to be packed. The Chinese did that the whole time that the cannery operated. The only local people that they hired was mostly during the fruit season; cherries, an peas, and things like that, to, a, the Chinese, they were just salmon people.

Hanson: O.K.

Cramer: Yeah, and one of the things, in those days, they'd cut off the . . . in cleaning the salmon . . . they'd cut the head off the salmon and they'd dump it in a hole, I think, in the floor, but it came out in a chute with water in it and it finally dumped outside. But the salmon, the cheeks of the salmon had real good meat in it, and the Indian squaws would be out there, when they were

canning salmon, cutting the cheeks out of all these salmon heads, you see, that were coming through. I remember that.

And, of course, one of the old timers there was, Hank Whickman . . . he ran the scow wheels for Seuferts, and he ran the launches, and they had foreman that worked there for years and years. People generally stayed there. "Chris Keedo" was another longtime employee. He ran the Tumwater fishwheel for them and bought salmon up there. I think Chris might of, in the spring of the year, worked those three fishwheels on the Washington side of the river.

So, anyway, ah, Edna Mae's dad was there a long time, and her brother, Francis, was there, too.

O.K., well, I graduated from The Dalles High School, there, in 1934, and went to Oregon State; took Fish and Game Management; graduated there in 1938. My first job was with the Bureau of Reclamation, building Shasta Dam, in July of 1938. We were a field crew: Harry Hanson, Leo Urkel, and myself, and another guy . . . I can't remember his name. Anyway, we were trying to figure out how many fish were going to be effected by the construction of the Shasta Dam. Where do these now spawn? What runs are there?

Then I, of course, was in World War II. After World War II, I went back down on the Sacramento, and I was there again. Then I was called back in the Korean War, again.

Hanson: What branch of the service were you in?

Cramer: Well, it was the field artillery, yeah. Then after the Korean War, and I got back home . . . then I went to work for the Corps of Engineers at McNary Dam on the Walla Walla district. And, ah, I was a biologist at McNary Dam. And then I worked there for about three years and then I went into the district office in Walla Walla, and worked there for about six or seven years. Then I went to work for the Bureau of Commercial Fisheries, which is now called the National Marine Fisheries Service, in Washington, D.C. I Went back there in 1964 and worked there until '68. Then I went to the regional office of our National Marine Fisheries Service, in Turnal Island, California, and that region was California, and Hawaii, and Guam, and Arizona, and Nevada. I worked there until I retired.

Hanson: What was your job description?

Cramer: Yeah, down there, I was called Fisheries Administrator. I had four different things: in charge of four different . . . one was called, "The Federal Aid Program". There were two acts: one was called the "Anadromous Fish Act", and the other one was the "Fisheries Research and Development Act", in

which the federal government gave money to states, under certain conditions, to do research work and to help anadromous fish. It went through the regional office. I had charge of that. I was in charge of the tuna enforcement program, Yellow Fin Tuna; and then I was in charge of . . . what we call "known reserve base". All these projects that were being built, whether it was dams or levy construction, or whatever . . . how it might affect fisheries and report on that.

And, so, I had about eighteen people working for me, down there. I always hired just these young kids, right out of college because, you know, they have to have a chance. The big thing was to get their first job and these kids were full of enthusiasm, and they didn't have any bias one way or the other, you know, you could train them from the beginning. People would always say, "Why don't you hire some guys with experience"? I'd say, "Hell, I got the experience; I need some young guys with a lot of young muscle to do the work", you know. So it worked out fine and those guys have all done well.

So, then, I retired there, in 1976.

Hanson: Well, somewhere along the line you met Edna. Give us a little bit on that.

Cramer: We never lived more than a block apart our whole life, really, you know. And we went to school together. We graduated from high school together; walked down the isle together, but we never went with each; we used to fight over who's going to ride who's bike when we were kids, and stuff like that, you know.

Hanson: This is Edna Mae Seufert? When did you marry this young girl?

Cramer: Right, oh God!

Hanson: Oh, oh.

Cramer: Boy . . . that's an embarrassing question. Let me see, 19.., ah, let me see; see World War I was . . . married in 1943 . . . I was in the army then . . . 1943, right.

Hanson: And you have children?

Cramer: Have one daughter, Julie. Julia. She lives in Eugene. She's taught school for a long time and she's married to . . . her name is "Kneible", and we got two grandkids: a boy and girl. They're young; the boy's, ah, how old is Jeff, ah, nine, and Carie is only five. So, ah, and then we moved back to The Dalles, of course, because we were both from here.

The thing I really missed, when I retired, was the people I worked with. That's what I really missed. But, ah, you know, you have to do something about that so I joined the Kawanis Club and I got interested in Historical Society. I'm president, this year, of that, and I've been involved with the original courthouse and I put out the Senior Highlights, which is a monthly newspaper, and local history stuff in it each month, you know.

Hanson: Well, it doesn't sound like you retired, totally, does it?

Cramer: We got a little ranch, southwest of Dufur, which keeps me busy. We have ten acres of irrigated pasture. A friend of ours runs his cattle on it. I cut all my own wood, and stuff like that, so a seven day a week job . . .

Hanson: Yeah, and the pay is . . .

Cramer: Pay is, well it's, ah, well it hasn't changed much over the years, you know. Well, anyway, it's been fun. If I had everything to do over again I wouldn't change a darn thing. I'd just do it just like it was.

Hanson: It was a good life and still is a good life.

Cramer: Yeah, I really enjoyed it, yep, you bet, yeah.