

0:03:45

Talks about taking a Tektronix test with Blanch Cook

had come down two years earlier and went to work for Tektronix. And he said there was a lot of work going on down here. So I was young and I knew if it didn't work out the railroads were still busy. I could always go back to the railroad. There was fifty railroads in the states that I could of got a job for. So I come out in...it would be in...April of 1956, and stayed with my brother John in north Portland. And caught the...Oh and borrowed his car and drive out to...Where I went was 6900 southwest Barnes road. Which it was the main place for Tektronix. They'd graduated from Hawthorn and moved out there. And now the 6900 building, there's one there now about a four story high building. But the building that I hired into was only one story, but it was a nice modern building. So drove out there, had no trouble finding it, and went into the door. I can still visualize going in there. And there was the most attractive movie star girl at the desk that I'd ever seen. And so friendly and so I told...She said...I told her I was applying for work. {Receptionist said} "Okay fill out these forms." And so then she said, "ok well the way it works, we give you a little test. So Blanch Cook is our personal person that will do that." So waited for a few minutes and Blanch Cook came in, probably a lady maybe thirty-five or so. Very professional looking. She took me into an office where you put square pegs into holes and round pegs and things like that.

DH: [chuckles]

LM: Well I was very good at that because I had been a telegraph operator. So I went right through that and she remarked at how well I did. Then a little I.Q. test and stuff, so everything went swimmingly. I noticed one thing they did while you were visiting them. They had three faces; they had a frown face, and they had a straight face, and a smiling face. Just like...what is that they call that...smiley face now? This was way back in fifty-six, just a circle, no color. So she checked mine a smiling face, that was important.

DH: Ahh, [chuckles]

0:05:49

Applied to
work at Voit
Rubber.

LM: If you were a frowning face, you know, that would be a point or two against you. Because everybody at Tek was just like your long lost friend. Such a friendly group of people you've ever met. So anyway that was fine, everybody, the thing went good. So they said "we'll call you." So I use to going and hiring out and being hired immediately. That was my railroad experience. So I went back 7155 north Mobile where my brother lived and didn't get a call from them for a day or two. So a week went by and we did a few things you know. And then an other week went by and they never called me. So I noticed that Voit rubber which was down...you heard of Voit rubber?

DH: No.

LM: There, back in those days, they may be in existence now; they made all the basketballs and that kind of balls with the name Voit on them. It was like they worked with rubber and leather. Footballs and stuff like that. And they were right down on that...commercial street...that goes out towards the airport?

BM: McLoughlin?

LM: No, no...by the tracks...but it doesn't matter. Pardon?

BM: Lombard?

LM: No the one paralleling Lombard, when Lombard runs into that commercial street. It's where all the businesses are. Well anyway, only about four or five blocks from where my brother lived. In Kenton actually.

DH: Oh okay,

LM: So I went down there and it was in a Quonset type building. Hotter than the hubs of hell. But the office wasn't bad, so he took me back, showed making these balls, and there was rubber fumes and kind of like smoke in the air. And there was a kind of production line. People making these balls. And so I watched

0:08:12

Recalls being
hired by
Erwin
Ashenbrenner

and then went into the office, took an application. So I go home and this was in the morning, so I go home and about two o'clock in the afternoon I get a call from Tektronix. "Come on out we're hiring you." And then about half an hour... "Tomorrow come out." Half an hour later I got a call from Voit Rubber that they were hiring me. So I go "I already have a job" I don't know... I'd be dead now if I'd stuck with Voit Rubber with all the fumes and stuff. So I was so fortunate. So then I went out, I guess I went out to interview for a job. Now they were hiring me, but find where to place me? And so I went to see R.T., first of all, with Darrel Pennington a fellow Canadian. He had been a professor at U.B.C. {University of British Columbia}. But I don't think he even knew that I was a Canadian unless he recognized my accent, probably did. But anyway, I went through all the tube area. It was such a fascinating area but even though I'd done a little burning so I was a little familiar with torches. I guess I wasn't the fellow he was particularly looking for. So then they took me over to Erwin Ashenbrenner who was over in the sheet metal department. And my brother-in-law knew Ash...and he would call him "Ash"—Ashenbrenner. Just died a few months ago, nicest guy you've ever met. Anyway, so he turned me over to a wonderful supervisor. I'll think of his name in a minute. But anyway so while the supervisor was showing me around, Erwin went to my brother-in-law and said, "well what do you think about Lee? Would he fit in with our..." {Brother-in-law} "Oh yea" he said, "He sure would." {Ashenbrenner} "Okay." So then the supervisor said yea looked like I'd work out so they hired me. And it was a very significant day. I didn't know it at the time; it was May the fourth, 1956. My wife was born thirteen years older on May the fourth.

BM: Well I was born in 1945

LM: 1945. So she would be about...

BM: Eleven.

<p>0:09:31</p> <p>Working in paint shop with Lee</p>	<p>LM: Eleven years old then. Whom I'd never met of course. So what was the next question then?</p> <p>BM: Well you got hired and then you went into....</p> <p>LM: Oh well all right. So then the next day they took me onto the paint shop. And a fellow by the name of Lee Miller, similar name to mine, here I'm Lee Mason and he's Lee Miller. So every time they're paging Lee Miller, it was kind of noisy, I wasn't sure if it was me or him. I knew why would anybody be paging me? My job there was...we got a lot of Oscilloscopes back from the military, it seemed like it was, that would get scuffed up somehow. So they would take all the sheet metal, which was considerable, off it. And the paint department stripped the paint and repainted it. And they would even change colors a little bit to more of a military color. And they would even upgrade them if they needed it. You know, every month they were finding a way of improving it. So they would update them and ship them out just as new because they were exactly the same as new. So I was there for a day or two, and then and then they said they needed somebody to work on scope mobiles. Now if you've looked in the book you've seen scope mobiles have you?</p> <p>DH: Uh huh.</p> <p>LM: There the cart that has rails like this [gestures with both hands] and the scope sits on there, I'm sure you seen them.</p> <p>DH: Uh huh.</p>
<p>0:11:05</p> <p>Working with Ivan Arnold</p>	<p>LM: So they needed somebody to work in the scope mobile department assembling. So that was one of my jobs. To take all these parts and screw them together, and end up with a finished scope mobile. But not only did we assemble them...oh my I had a wonderful lead man then named Ivan Arnold. Terrific guy.</p>

And he showed me; right away he could see that I had some potential I guess. So he showed me everything and I was operating bending breaks and punching things. Every day he had me sawing something, every day I was on a new piece of equipment and learning how to read these drawings. I enjoyed it so much I couldn't wait to get to work. And they way for about the first twenty-five years at Tek. But not the last two. So anyway, we were just booming. That's probably why they hired me. I think they were hiring anybody that came through the door. We were just booming. I was the very close, and possibly exactly, the 1000th employee at Tektronix.

DH: Oh really?

0:12:10
Month with
1000 scopes
shipped with
1000 people.

LM: In that month, they... The next month I guess that would be. At the end of the month they announced how many scopes they've shipped. In that month they shipped 1000 scopes. With only 1000 people! And a lot of them were office people. I don't know how it was done. And the profits share was forty percent. But previously they had profit shares up to seventy percent. But not with so many people taking out of the profit, even though the prices were very low. But these scopes, you've heard before, were sold pretty much at cost plus. What ever they cost, that's the way the ships were built by Henry Kiser, it was all cost plus. So you never worried about getting paid from the government of course. And most of our stuff went to the government too. Government labs and so it seemed, if I remember right, I could be wrong on some of these things. It seemed like as they hired more people then next month it would be 1100 and then sort of like 1200 and then you couldn't keep going at that rate of course, I've forgotten when it maybe tapered off. But after two months we were so busy that Ivan Arnold said, "you know we've got to put a swing shift on. So I want you to take about, I think about ten guys, and put them on swing shift. A couple of new guys and a couple of these experienced guys, and you'll be the lead man." Swing shift lead man. So I that, went to work at 3:30 then I think. Had a nice crew. Well, they were helpful did their work you didn't have to do the supervising you still

worked. You just didn't stand around and supervise. So there was no problems. And then...[thinking] a couple of months later, Erwin Asshenbrenner came to me and said, "you know we need this space, so we've just built a new warehouse over by the tracks on...." What's that street?

BM: Hawken...Millikan...

LM: Where you wanted to buy...

BM: Millikan and Hawken

LM: Millikan—but what's—Hawken and Millikan. By the tracks there, the MAX goes right by this warehouse; the warehouse is still there. So I was the first the first guy that occupied ten thousand square foot of warehouse with my little group. Just in one small section of it. Well now, instead of building these scope mobiles from scratch, where we made all the parts and bent them all up and formed them. All I was going to do was assemble them. So I had was two other fellows and myself. And I had to work just as hard as—all three of us were building these things. We build for the — two years that I did this; every day we built twenty scope mobiles. Every day, there was never a hic-up. There was a man over at building nineteen, which was that first one I was in. Building nineteen...[thinking]—Gene Cavanaugh, make a note of his name. He was the scheduler, and he would call me up about once a week and say, "Now Lee how are you fixed for the rails?" the rails are these big aluminum things that... [Gestures making a rail fixed to a platform] where the handles... [Continues quoting Cavanaugh] "And anything ells that you need?" [LM:] "No...Well yea, we need some more drawers. Or we need some more felt." [Cavanaugh] "Okay" So there was never once in two years that those parts weren't in the warehouse for me. When we went later on —When we went on computers, hey I wasn't in this department; things would get so screwed up. But he did such a wonderful job with that. So that I remember Erwin Asshenbrenner after about a year, he called me over and gave me a fabulous raise. In fact, I don't think you

0:15:24 Talks about moving to a new building and Gene Cavanaugh

0:17:43
Talks about
working in
Plastic
department
with Duncan
Burgeron

should put this on the—but he told me that he gave me the biggest raise that he had given anybody under him since he was running the place. It was still probably only twenty-five cents an hour. But the typical raise was, well when you started out, was five cents. Then maybe ten cents. If you were lucky you'd get fifteen cents. So that would be 1957 when I got that two bit raise. So then he said you know—about December of [thinking] 1958, he said, "You know we need some management over in the plastic department. On the swing shift. They're expanding greatly. So we're going to have a swing shift there instead of just a day shift. So I'd like you to go over and be manager of that." Actually not manger, they called us supervisors. [LM] "Okay" So I went over there and started work I think about January fifth, [thinking] 1959...1959 yea. It was a good year. So I started out there and I remember the main man was Duncan Burgeron. A real sharp guy but sort of a different guy. He was a little higher-level manager; he was a unit manager, which was fairly high. And then under him would be a manager, and then under him would be a supervisor like me. But he was a hands on guy. Of which, at that level, you usually weren't hands on. You wore a suit and maybe a tie and white shirt. But he liked to dress up.

So I'm on swing shift so they, he'd come stayed late...[inaudible] So the biggest machine we had what was called a four ounce Moslow injection molding machine. It was quite huge for only being four ounces. Now I'm in the molding business now. And a machine that was the same physical size as that Moslow was would be like a twelve-ounce machine [today]. Because they made them much better. They didn't need them so super heavy—everything was made so heavy. Anyway, the way he showed me — he took me to the machine and showed me how it worked, about five minutes. And it was a tricky job because I had to take these probe cylinders that were about two inches long, a half inch diameter, made out of aluminum. And it was a six-cavity die which means that I had to have the gate open. A little safety concern! And put these on core pins, six of them, close the gate, press

Continues to discuss working in the plastic department.

the button and then adjust the pressures and stuff, and then it would shoot. Well the first one—He did one and then just walked away and went home. So then the way the idea was, I would run this machine when I wasn't busy supervising other people. But he told me you just let it cool down a little bit and then you come back to it. So I cooled it down a little bit and helped some of the people. I had a crew of about twenty people running hand machines and drill presses and what ells did they run? Taping machines, inserting machines. A lot of tricky jobs. So then after everything seems to be smoothing out I go back and raise the heat to get it up to about [coughs]— It was a nylon, which is a tough material to run. Which nobody told me. If it gets moisture, it absorbs moisture. So just sitting around waiting for an hour for me to run, the material is in the hopper but its an open hopper and its going to be absorbing just small amounts of moisture. So I put these six inserts in there, closed the gate and jacked up the pressure a little but, and punched the button. And it was about a thirty second cycle. And so after thirty seconds it opens up, and the parts are all there and I think might have even—no they ejected. But they were still on the screw, but they all had little silver streaks on them. So [looks up at his hand]— “gosh what's that?” —set it aside —“oh no.” So you'd take the silver streak with your thumb and it would peel off. So I put it along— did a couple of them, same thing. So I turned the heat off and set it down. The next day when I came to work the guy— I asked the guy, oh not Duncan he was gone the regular day foremen, oh se said, “oh that's moisture in the material.” And so if you work with some material you don't need to worry about moisture. Like the stuff they make milk bottles out of, polyethylene, polypropylene. Even ABS {Acrylonitrile butadiene styrene}. Although, we dry ABS quite a bit, even though it doesn't need it that much, maybe a little bit. But Nylon you're always drying and polycarbonate, you can never get all the moisture out of it. The biggest problem with injection molding is moisture. We still have it in our molding company. Biggest problem, we think we have the state of the

art driers, but its still once in a while that there's moisture. Ok so I got started with Tek there. Now....

BM: What happened there did you figure out how to keep the moisture out of it?

LM: Well yea, we had driers there. But if they'd dry the material, with it just sitting in the hopper, you'd have to have a lid on it. But these things you learn you know. So... So I found that very interesting too, my goodness sakes that was interesting. So then we had a man come down from Boeing. The department was getting big and **Duncan Burgeron**, good man, but he was a hands on guy and I think the upper guys well they needed a— and he had worked his way up and learned the business just by doing it. So they figured they needed a professional plastic engineer in there to be the top guy. So they brought down Jim Sare [spells name] I believe—from Boeing. A real nice guy, and he wasn't there about a week that he wanted to firm up the quality control. So he made me a unit manager in charge of quality control for plastics. Pretty big step up from about a range nine to range twelve. And gave me a nice raise, he seemed to have a lot of faith in me. And just left me alone to my own resources so I just hired a couple —or had promoted a couple of people from the floor to be with me. I think we did a very effective job. But then what happened later on? [Thinks for a second] So I was doing that for a year or two as the quality control manager. And then something very significant happened. Oh, we moved into a different part of the building. We were in the south side of the building and me moved over to the north side, much bigger area. Brought in a whole bunch of molding equipment, real nice Arbors they were called. Nice, they were about two ounce machines maybe one and a half ounce, about a dozen of them. And we had lots of different managers—Cal Smith. My favorite manager in the plastic department then, I'm talking about 19...[asking Barbara] we were married then?

0:23:03
Promoted to
quality
control
manager of
plastics by
Jim Sare

0:25:00
Notes that
presidential
candidate
John
Kennedy
visited the
plastic
department.

BM: We got married in 1970

LM: So this would be maybe...No it was before that. I was thinking John Kennedy came through our plastic department and so that would be when he was running for office. What would that be 1962 wasn't it? So yea we were over in this newer part on the north side—yea you could cut most of that out—in 1962. My office is right where he goes from one office into where the injection molding is. And here comes David Brinkley, there would be a secret service guy in front of him but you wouldn't know it. And then David Brinkley and John Kennedy and other dignitaries. I think Bill Webber the vice president of Tek was with them and the hole — right past where I was standing at the door because I knew he was coming. Went right by me and into the injection molding. It was quite a highlight to my career.

DH: Oh, wow yea.

LM: So By then by that time I was in quality control then, but then I got switched over...Oh I know what happened. They consolidated the ceramics quality control with the plastics quality control, so that the man that was from ceramics was Howard Lewis. He took over the job and I was under him then and plus another guy, I was under him. And I was on that job a couple of three months or longer and then I decided to get into preproduction. Preproduction where we first started a new plastic part. I would get involved with making sure the die got made on time and scheduling it, I really enjoyed that job. And that's what I did pretty much, very similar to that until I retired in 1983. It was a fabulous job.

BM: So when did you go to Vancouver?

0:27:10
Company
moved

LM: We went to Vancouver in...[thinking] about 1981 they decided to build

plastics to
Vancouver

a plastic plant in Vancouver.

DH: Oh, Yea

LM: And so our whole plant went over there, well I shouldn't say whole plant. But, oh by this time plastic was split into two divisions. There was an accessory division which had probably a couple hundred employees. But the main division had maybe four or five hundred. That ratio sort of. So the main plastic division, which was in building sixteen on the main campus, moved over to Vancouver. But we people that were in preproduction engineering and engineering stayed in Beaverton. And just communicated mostly on phone. Oh [phone rings]

DH: Oh...it's all right. [Turns of phone] Go ahead.

LM: Mostly...doing most of our work back and forth—well a on the phone. But then they decided, I would say— trying to get the dates right. I would say in the spring of eighty-two...no....the fall of eighty-one. Fall of eighty-one they said, "well all of you guys are going to have to go over there physically. So Barbara and I started looking right away for a house and found one. A real nice house about four or five miles from work. And we went to work—I was there—didn't like it at all. They changed management and I don't know if you want to quote me on this. They brought in a lot of college people that had never had anything to do with running a plastic company. Most of them hadn't even got their hands dirty. And my favorite line was that they went to college and learned all the lines but they didn't learn what was between the lines. Which is where it all is. Everything is between the lines. So it was a very unpleasant place because they were asking us to do things that were totally ridiculous so that we couldn't do our job. In fact, in those days we had terminals. We didn't have these desktop computers. They were

0:29:18
Talks about
taking a
computer
class for
work.

terminals; you are probably familiar with them?

DH: uh huh [nods head]

LM: Tektronix made terminals. And a terminal company spun off from Tektronix. I had stock in it in for a while, did really well. So anyway, we had these terminals. So us guys we were so busy trying to get these parts molded and work with the engineers. And oh, first thing in the morning, we had to spend an hour on learning these terminals. Well in these terminals, its not like a keyboard is today. In order to write a simple letter you had to know a code. You're going to say "to" somebody. So you had to punch in "XYZ 31" and then that was "to." And then you had to remember something ells for "from." And you and you had to remember all the— it was in book of course, it was a book. [Gasps] Well, it would take you like an hour — just to email it takes you thirty seconds. It would take somebody, unless you were very experienced, a half an hour to write an email. So this valuable time, a whole hour, we didn't have five minutes to waste. And the whole crew, the tooling, the guys that were drawing up the molds was a very sophisticated job, and I was trying to schedule things. And the guy— we had a main plant out at Wilsonville that we were working with engineers there and they needed parts. They'd call us up...Well...it's going to be a few days before we get it to you because we're behind. Well we couldn't catch up. And then— and then on top of that they decided.... Oh were going to have a quality control course in the afternoon. Well everybody that was in our group, about twenty in the office type group that I was in, all had been at work with quality control for years. We knew more then the teacher did. But they brought in a guy that started from grade one. [Shakes his head] so all of us guys that were designing tools, actually checking quality, working with the engineers, telling them how to design the parts so that we could make it you know. They can design parts so you can't mold them, can't get them out of

Continues to talk about work classes

in my garage, in Aloha, not far from where we are right now. And I started with the smallest molding machine probably ever commercially made. And it was a Simplimatic and it could only shoot one-third of an ounce. Its for very small parts, that would be as big as the end of my... that much of my [gestures with the tip of this finger]...maybe about...a part that would be a half inch tube... would be as big a part as it could shoot. But if you look into electronic instruments, there is a lot of little parts.

DH: Yea, well yes, uh huh.

LM: And so before this retirement came I'd upgraded that. I designed a machine around this one but much improved and designed where it would shoot an ounce. Now, an ounce was the regulation that use in a big machine. But wasn't as big as that center cabinet there [gestures to a television cabinet]. And I designed a small high powerful hydraulic machine that was air over oil — you called it. It'd sit, where it had a hydraulic clamp — well it had an air injection. Now what's good about that, one of the secrets of molding. Well I told you one, is have the dried material. Which I had driers, or we just used a household oven, but if you watch it that works. But the other one is fast fill. You want to fill that mold as fast as you can. I put a huge cylinder on this molding machine, which would have a cylinder about this big [gestures making a small lime sized circle]. And I had one, and this is a big multiplier. When you go from this [lime sized circle to cantaloupe sized circle] to this it's not twice as much it's ten times as much, with a long stroke. And I had an air exhaust system that was called a quick exhaust system. So that thing would come down, Wham! Like that [gestures with fist] and the mold was full like that, and then made it so you could have fast cycles, you could run the material colder. Then one of the other secrets is run the material as cold as you can, but where it still looks nice. If it gets too cold, it has wrinkles on it. But as soon you get rid of those wrinkles that's

Discusses his own plastic company

0:37:46

Nephew Earl Trask worked with Lee in the formative years of his company.

where you run it. You can run it fast and every part will be good. And the colder you run the less chance, even if there's moisture in the material, it won't come to the surface, it's just buried in there somewhere. So most people run it too hot, there's moisture comes to the surface and ejects everywhere.

Anyway, so I planed for that, so it was still operating over here. I had my nephew Earl Trask, lot of people that— His dad Warren Trask [inaudible] was the one who recommended me for Tektronix.

DH: Oh Really?

LM: And gave me— Got me down here in the first place and recommended me to Ash Ashenbrenner as a good reliable person. And...

BM: Warren, Earl went to work for Lattice {semiconductor} didn't he?

LM: Earl later went on to work for a lot of these— you know Norm Winningstad, you've heard of him?

DH: [nods yes] uh hum.

LM: So many companies separated and Warren, my nephew, worked for three of four of those. And he got some good experience running my molding company. So anyway he was between jobs. So when we moved to Vancouver, I was running a little swing shift where he'd come down in the evening. Because I was still working over here, but I mostly worked on weekends on my home project. So he'd come every evening and put in about three— we were by this time we're getting a few customers. So I would call Earl and say, "you know I'm thinking about taking this early retirement and do you think we can both maybe survive over there." Well we seemed to

0:39:10
Talks about
how many
people took
early
retirement
from
Tektronix.

think so. But anyway then— ok I'd taken my early retirement, which I did.

BM: How many people were eligible for that retirement?

LM: Oh that's a good story. My recollection is that was nine hundred people eligible. That were over fifty and had been twenty-seven years with the company. Anyway, the story I remember is, Tek did a survey of other big companies that had offered this same thing. And they found out something like ten percent of the people would take it. Well I mentioned that things were in a downhill mode. Ninety percent of the people took it.

DH: Oh really?

LM: Not ten percent. So that right there tells you how these old timers felt about the company. Not just me. And we were all hoping that the company could turn around but most of us thought— they had 24,000 people— we thought all they needed was 16,000. So even getting rid of 1,000 was nothing, and it proved that they needed to get rid of way more. So anyway, the time arrives, and what a relief. I'd just come home; I'm a changed man. [Looks at interviewer and rubs his eyes] Couldn't wait to get up to work again!

DH: [chuckles]

LM: But I was driving from Vancouver with this old van we had... what was that a sixty-two?

BM: we had an Econoline...

LM: Nice old Econoline, and I drove to work; my family was still there you see. I drove over each morning...can't wait to get to work you know. And

0:40:36
Talks about
working with
Earl Trask at
Lee's small
plastics
company

worked all day, and Earl worked and I worked. Well as time went by there really wasn't enough work for us. Earl was wanting to— he already had some education, much more than I did. A couple years of college. So there was some opening in...what's the one that John went to?

BM: Oh yea... PCC {Portland Community College}

LM: PCC, it was.... what was it called?

BM: The program was something to do with processes in wafers.

LM: It's circuit boards and oh the wafers. Yea, the wafers.

BM: And he went through that program and he ended up at— I think— wasn't he at Planar?

LM: Yea, but he went as a technician.

BM: Yea, a technician.

LM: Now the technicians, when it comes to hands on, usually know more than the engineers. Because they really learn the hands on. The engineers know all about the— how to figure things out you know. So he became very successful, he worked for—well Lattice was one of the places, and Mentor Graphics and then he worked for about three or four places that were all start-ups from Tek and did fairly very well, rose to— Rose kind of like I did. There was an expression that he rose up to his level of incompetency. Have you heard that expression before?

DH: [Laughs and nods head]

0:41:56

Talks about rising up in the ranks at Tektronix.

LM: We used it quite a bit at Tek.

DH: uh huh.

LM: So in my case, the way I used that was I rose to a level that I felt comfortable with. I didn't want to go up where I was over my head, so that was me. Now the people that really get ahead and you've got to admire. They go beyond that comfort level and stick it out. But I wasn't of that nature. So Earl went on to great things. He is actually retired now at fifty-five, down in Hemet for the winter and San Diego. Living the good life, has pensions coming' form Tek I'd expect and some of these other companies.

BM: Well Lee, you didn't drive very long. We moved back here in October.

LM: Well that was quite a long time. May...

BM: Yea so...

LM: June, July, and yea October. Yea.

BM: Yea, it was quite a few months.

LM: [very excited] And the kids—Oh, they were so...

BM: [While Lee is speaking] They were so happy...they were so happy!

LM: [While Barbara is talking] They were so happy...We still had our house and we didn't sell our house, so we had the same house. Oh! And all their friends! And they went to the same schools.

0:43:10
Moved back
to Aloha
from
Vancouver

BM: We were only gone about two years. So they were thrilled to come back.

LM: So everybody was happy. So where are we now?

DH: Did you have any friends outside of work that maybe had a relationship with Tektronix?

LM: Well yes. Oh... Bill— This is an important story. Bill...

BM: **Tesser?**

LM: My best friend I ever had in Tektronix. Bill lived over here beside us.

BM: Oh! Um... gosh I hate not being able to remember names.

LM: He is such a famous guy! Bill... Oh I'll think of it.

BM: And Caroline?

LM: Yeah! Bill and Caro1ine. What's their last name?

BM: Oh! It'll come to me in a minute.

LM: Anyway—

BM: **Benedict! Bill Benedict.**

LM: Yeah, Bill Bennet. Now make a note of his because I want to tell you

0:44:10
Talks about
working with
Bill Benedict

about when I first met him.

DH: Mm hmm.

LM: So, when I was in— about the time Kennedy came through. So that would be about sixty-two. I was in— I was the unit manager of plastics quality control range twelve at the time. But I only had three or four people working under me, because we were very efficient. People got ahead; they built up big empires and said, “Well look at me! I have all these people, I should get paid more,” Should’ve been the opposite. We guys that ran efficient should’ve gotten paid more. Anyway, I digress—I had to get some kind of electronic piece of equipment to check something... now I’ve forgotten what it was... So I called up and they gave me somebody that built those kind of things. And they gave me a name, Bill Benedict, so I said “Oh I’ll be right over!” So I came over and the guy... he’d be at the time—I’m not sure he’s even... no, I don’t think he’s married. At the time he looked like he’s about, a little— oh about my age, maybe younger, but anyway he looked a picture of an engineer. Looked very—But he—I found him extremely shy. I told him what I want, “Oh yeah... yeah” he absorbed it right away, I didn’t have to, you know this and that and the other thing, okay. He said “that’s fine” and so I went back to where he worked in building fifty. And the next day he had this piece of testing equipment for me. So, through the years I think that’s the only thing he made for me, but it—what year did they build those houses there?

BM: Hum...

LM: In nineteen-eighty, when we came back, in about 1984...

BM: No, it was before we left. They were build way before we left.

LM: Oh.

BM: I think they are older than that.

LM: Well, okay, so its important to me, not you, but—oh sure.

BM: It was built in the seventies, because our kids played in the—

LM: Well, they were about the same age.

BM: Yes, our children were the same age as their children.

LM: So, I would say as a reference about 1974 they moved into the next street to us into a brand new house. His wife was Caroline. And her—she has a famous brother. The famous brother is Richard Van—

BM: Grunsvan.

LM: VanGrunsvan. And why he is famous—he makes more airplanes, flyable airplanes than Boeing does.

DH: Oh yea, uh hum

BM: Kits.

0:46:35

Bill Benedict
Moved into
Lee's
neighborhood

LM: Their kits, but they are flyable— you can do these things with them [Gestures making a loop], and—so anyway, being as Bill Benedict's—Bill must have taken retirement when I took retirement.

BM: I think so, yeah.

LM: And anyway, we had moved to another house only a few blocks farther, but still close to Bill you see, and in 1987, that's a few years later—so I needed some wiring done because I'm needing big molding machine done in to our big garage there, as long—well obviously not as long as this room [14x12'], but half as long [7x6']. Just like those big ones that Tek build—so big.

BM: Like a freight train engine.

LM: But it could shoot about like six ounces. So, he came over and helped me get it wired and all this stuff, because I had to get more household power... he would hardly charge... and I regret myself that I didn't double what he asked for.

BM: Wasn't he— didn't he go to work about that time for Vans Aircraft?

0:47:35
Bill Benedict
helped Lee
wire in his
new injection
machine.

LM: Yeah. And he had design. He went to manage Vans Aircraft, now they are over in North Plains; you know the story about that do you?

DH: Yeah.

LM: They are over in North Plains now and he is the manager. But before he became manager, I taught him how to be a molder [inaudible].

BM: [inaudible] Yeah, how to be a molder.

LM: Because he went to work for Davis. Davis is a guy that—

0:48:30
Talks about
Davis Tool.

BM: Davis Tool.

LM: Davis Toole was the guy that was real sharp guy.

BM: Ron Davis.

LM: Ron Davis in the model shop department at Tek where he had to be a superior mould maker. Well, about—what time would that be roughly? About nineteen-...

BM: Gosh, it would have been before....

LM: Oh, probably about 1975, he started Davis Tooling in Hillsboro. Isn't that what its called? Davis Tooling?

BM: Yeah. Davis Tooling.

LM: And it was for machining parts in this big contract with Boeing, and he was one of the first guys that got into CNC {Computer Numerical Control} work and could build very complicated parts. In fact it was before 1982...

BM: They were doing a lot of stuff with the—that real elaborate metal... what's it called? I remember they had a clean room...

LM: Titanium?

BM: Yeah. They had a clean room where they were doing it. I saw it a couple of times.

LM: Anyway, they still go through his plant. If— he would be an interesting

guy to interview.

DH: Um hum.

LM: Much more so than me. Anyway, Bill knew about me molding and all— in fact we made parts. We made an impossible part for the airplanes. It's the one; the pilot will hold on the stick [gestures holding an airplane control stick] it's a plastic part.

DH: Oh... uh huh [nods head yes]

LM: And it has a little hole here in the front [gestures making a trigger] where you could put a— hook a machine gun up to it. And when pull that it shoots the bullets between [Barbara starts talking] the props. There timed

BM: [while Lee is Talking] And they sold...they sold the planes to Nigeria or some place.

DH: [Laughs]

LM: Yea they got a contract for a hundred of these planes to sell to Nigeria. But they needed guns on them. [Inaudible] Before that they didn't have guns on them. And they had this very sophisticated—where they had places for your fingers to go [gestures making control stick]. And they had a wooden model of it, it's all they had. So I took it to another fellow, that was a genius as far as making things, he's in jail now.

BM: Oh yea, Dave Larson

LM: Dave Larson, you should almost work that in but you could leave that

0:49:34
Talks about
making parts
for Vans
Aircraft.

Continues to
talk about
making parts
for Vans
Aircraft

jail part. He worked out of his home and he worked for Tektronix in the modeling department, Wilsonville. So I took this to him, this wooden thing to him, and he made a mold. Very reasonable, I can't believe it was about a thousand dollars. A regular big mold maker would of cost us ten-thousand dollar for it. So he made this mold, put it in got the first— sometimes you have trouble with the first— got the first shot gave it to bill.

BM: The thing was they were very low usage, you know they just wanted a few hundred parts.

LM: Well they wanted a hundred to start.

BM: Yea, well that's low usage for plastic.

LM: yea, oh yea. But yea, nobody ells likes that small usage

BM: And the parts don't cost anything it's the mold that costs

DH: Yea [nods head affirming]

LM: So anyway, Bill was very happy with that and he looked through our molding company and he was a quick learner. So he could see just looking at it how it works. Top engineer, an electronic engineer that was also an electrical engineer. A lot of electronic engineers don't know household, it's kind of a different thing. But he knew both. So all of a sudden Ron Davis needs more help out there, and he {Bill} was the best friend of Ron Davis, they were just like this [gestures crossing index and middle fingers]. But like you know you go to— you only work for Ron Davis for a while. And then Ron decided to start a molding business. So he bought brand new sophisticated machines right off the bat.

And put Bill in charge of that division. So Bill had me out a couple of times to help him a little bit with what little bit I knew. And also he came to my boys and got a few little ideas— if he had problems would help him. But he only worked doing that six months. And then he went to work for the airplane guy and part of it I think was, I think he a little trouble working with his best friend. Because his best friend wasn't happy till your nose was bleeding, he wanted you to work that hard. That's they way most people who worked for Ron Davis don't last long. But I remember this guy that came to me.

BM: Oh what was the guy that use to make... [Interrupted]

LM: in 1983 when I first came back, I got a call from a fellow. He saw my name in this little, one line in the phone book. Advertising was so expensive there was no Craig list. And he just lived over here behind [inaudible]

BM: And he did some work for us and we sent him to Davis Tooling, and he got a job at Davis Tooling.

LM: No, well let me start the story though. Yeah he made something for me, and then he just worked out of his house. So I could see he was a sharp guy. So anyway he was almost crying one day because there was a big—in the early eighties there was a huge recession.

BM: [while Lee is talking] in the early eighties it was just unbearable.

LM: Almost like now but it didn't last as long. He was almost crying, did I have any work for him? So I did find little things that he could make, little tools that I need. And I'd go over to his house, he had a wonderful wife, I've forgotten about his children, I'm not sure. Then I'm not sure if he asked me or if I said—you know and he knew CNC. A lot of people didn't know CNC. So I said, I don't know if I suggested Ron Davis or he suggested him to me.

0:51:36
Talks about
Ron Davis
starting his
own molding
company.

0:53:08
Talks about
helping a
friend during
the recession
of the early
1980's

BM: I think we suggested it.

LM: Yea, so I said, "Well yea, and I'll give you a good recommendation." Which I did, so he got on and he— a few years ago he was still there! So he— I told him...boy with Ron...don't make any mistakes, he'll fire you on the spot. Just like that [snaps finger]. And so I know twenty years later— in fact I ought to go over and see him one of these days.

BM: Yeah you should.

LM: When we think of his name.

BM: [Laughs]

LM: But you do want to interview Ron Davis. But led me to another name that you want to interview. It had come up in this conversation, was Bill Benedict. He died you know.

BM: Oh in the plane crash, oh with his son. He and his son were both killed. Terribly sad.

LM: Oh his son, oh Bill then gradually— he wasn't shy, as he came out of that. Maybe it was after he got married or something. And he had the nicest little boy that played with my...

BM: Same age as our son yeah.

LM: He was so shy, when I asked him I'd say— what was his favorite answer? He always had the same answer. I'd ask him something like "What did you learn in school today Jeremy?" and he'd say "nothing." Or it was

always a one word— because he didn't want— now he played good with my kids but... So anyway he went to PCC to college. And got the to be the valedictorian there and he got a little bit political and got up where he could make speeches and everything. And part of that was because when he got old enough he started taking flying lessons.

BM: [while Lee is talking] He went to University of Portland. University of Portland.

0:54:28
Mentions
Ron Davis as
a person to
interview and
death of Bill
Benedict.

DH: Okay [nods affirming Barbara]

LM: His Dad became a pilot too. And they flew these planes. And he went— there's a good story on the website about him. You should be able to look it up. Jeremy Benedict. He went over to some place like Manchuria or some place and they sold a kit to a guy and he went over there and showed him how to put it together and he helped him fly and everything. Interesting story. But then...what was I leading up to here about the plane? [Thinking to himself] Oh— well then, was it was about eight years ago now?

BM: Oh yes.

LM: They were flying to Florida, both pilots, Jeremy and his dad, they have— the airplane, fortunately they sit side-by-side. Which is great.

DH: Uh huh, yea.

LM: How to learn you know. They're flying back to Florida. They use to go to the big place that's called Oshkosh, have you heard of Oshkosh?

DH: Yea I've heard of that.

Continues to
talk about
Bill and
Jeremy
Benedict

LM: They flew there every year. And also to Florida this place that's the same thing. So they're flying and I think they were going over Kansas and a farmer in the field said he heard a loud noise and he saw a plane going straight down. [Gestures plane crash with hand] Bang! Into the ground. Well that was the end of Bill and Jeremy.

BM: It was terrible, I heard it on the radio driving to work because I was still working at the time.

LM: Now that would be about ten years ago.

BM: Yea, So I had to go in and tell my kids, you know here's this friend of theirs. And you know and our friend, you know it was just really awful.

LM: But if you want to read about that you can look that up too.

DH: [shakes head] Oh...Okay

LM: So that was so sad for the family, and they had a sister too, so sad for her.

CV: What about the guy that was in the wine, that has the winery now?

BM: Oh, John Kobbe? Was he the....

LM: Oh, yea. You've already interviewed John Kobbe.

DH: Yea, I think someone else is going to going to do that.

BM: they're going to interview him later this year.

LM: You knew that Howard Vollum considered him the top engineer of all the engineers they had?

DH: Wow really?

LM: And He— I think I told you that he just had a high school education. Because that was my story. But then reading elsewhere, I think maybe he had one or two years of college. But probably PCC.

BM: You know Lee has a couple stories about Howard. You should tell that story about fixing the toaster because that was such a great story.

LM: Oh he knows that, everyone... that's in— you've read the blue book haven't you?

0:56:10
Mentioned
John Kobbe

DH: [nods head affirming] yea, uh huh.

LM: that's in there isn't it about the toaster...

BM: that's such a great story.

LM: yea. But my big hero, and I think you've all ready read this. The one...the book that—Tippery wrote. Have you read the one he wrote?

DH: No.

LM: Miles Tippery. Did you loan that to somebody?

BM: No I think we still have that, but I think they have a copy of that at the museum.

DH: Yea, I think I've read some excerpts from it.

LM: Yea well thing is I was wondering if Howard, at the end, might have got dementia. Because have you seen his last interview that was on TV? Channel ten?

DH: Maybe Yea, I think.

LM: well you can look that up again. But when he talks about starting the company, unless they had a fall-out, he never mentions Miles Tippery once, Tippery. And he mentions quite firm that the people that started the company was he, and Jack and the other two fellows that I've just momentarily forgot, two other fellows. So I'm thinking that he and Miles must have had a falling out and it could possibility be— you know I told you about **Blanch Cook** being the one that was in personal that... Well I didn't know it at the time but her boss was Mrs. Tippery. She was over personal.

DH: Oh, I see.

LM: But they might of— they left Tek, I think maybe a year before we come, so she would have gone. What happened... did you ever hear the story about the mysterious sickness in Portland?

DH: No

LM: In 1953. Oh this is part of your story. You got to get this in. Well you know Bob Davis?

Talks about
Miles
Tippery

DH: Uh huh.

LM: He was one of the top guys. He was in the Coast Guard too, like Howard Vollum, or not Howard Vollum but Murdock and Tippery and Davis were all in the Coast Guard.

DH: Oh, Okay yea.

LM: Anyway, you can read about this somewhere. Because I might not have it exact. But Bob Davis had this beautiful wife that I think was twenty-three years old. And they had just started at Tek maybe years. He was high up right away. Because of his background, and she died at twenty-three. There was a mysterious disease came to Portland Oregon. I don't think anywhere else, and there was maybe three or four people died from this. And they didn't know what it was, they were testing it, and what happened was Miles Tippery got this same thing. What they thought it was the same thing. He didn't die but all of a sudden he couldn't work, he got so— he'd just built a house, where the hospital is now right across Barns Road. Got a hell of a— bought five acres, so built a beautiful house, and then got this disease, where it's all down hill and he hardly walk then, about like this [gestures taking tiny footsteps] to go to work. So this went on and he wasn't getting any better, and he was from the old school, at least in his book, that he said the old school—you can't— and he was vice-president of something, and was one of the old school that couldn't take a big pay check without doing something. So this was causing him mental anguish, but I'm wondering if maybe he hadn't had a little fall out with Howard about the same time because of the fact that Howard doesn't mention his name. So I think Jack was still living there, I think he was more of a— but you've heard of Earl...you remember Earl's last name?

No, another Earl...have come across another Earl, big high guy.... Earl...

0:59:13
Talks about
mysterious
sickness in
1953

Talks about
Miles
Tippery
getting sick

Anyway he was a kind of confidant. And Earl told him about a place for sale up on what's that island you went to?

BM: Oh yea, in the San Juan's

LM: In the San Juan's. Do you know that story? You know he bought that?

DH: Yea, I think I've heard of that one.

LM: So this Earl guy got him on to that and he sold his property and went up there and I believe that when I came back and went to work at Tek in fifty-six. I remember going into the lunchroom, and it sticks in my mind that Miles Tippery had come back and made a little talk to the people about how the company got started and I'm quite sure it was him. But it doesn't show up in any of the literature I've read. A very impressive guy, a little guy, but impressive. So we have gone off on an awful lot of tangents where are we?

DH: Oh that's all right. I was wondering if you participated in any of the training programs that Tektronix offered?

LM: Well you know....

BM: Don't you remember MTM? [Laughs]

LM: which one?

BM: MTM

LM: Oh yes, what was that?

BM: Motion Time Management.

1:2:12
Talks about
Miles
Tippery and a
presentation
about
Tektronix

LM: That was the beginning of the down— I went to MTM, you know what that is?

DH: Okay,

BM: Motion Time Management

LM: Well the way that we— I was in quality control but also— one example they had molding machines, not near as good as mine, but that's another story. The girl would be sitting here when I first started, and they had a small mold because there were a lot of small parts. Heavy— they lift— it weighed two or three— they had to slide in into the molding machine [gestures sliding a tray], push a button and then it would close [gestures pushing a button], and then push another button [gestures button push], and in about a minute it would open she'd pull it out [gestures pulling a tray] and a heavy die she would pull a part [gestures pulling a part], get the part out. At the end of the day I don't know why more of them didn't have Carpal. But it wasn't a word that was popular. Now everybody has Carpal.

DH: Yea, [Laughs]

LM: But I don't remember anybody having Carpal, and they were doing the same sorts of thing. So we would time them, what we would do, we would— the best operator that they had, you know that had maybe four girls running these machines, so we would go to the best operator and watch her and break down the time. And so "Okay" this girl could get sixty parts an hour. Well standards are always usually higher than you expect to meet but they're standards so we'll say sixty parts an hour. So if you made fifty parts an hour you were within the standard. So you always set the standard a

little bit high. So this happened about the time Earl Wantland took over as president I think. Anyway, and oh, the chief engineer what was the top guys over the engineers, can you kick out a few names? It was this guy.

1:03:01

Talks about
MTM:
Motion Time
Management
training
program.

DH: Ahh, [thinks] I can't remember sorry.

LM: Was sure a sharp guy, but he wanted to go sophisticated. So sophisticated that ruined the quality control department because your trying to work with ordinary people and teach them sophisticated techniques that in no way will they understand, even we supervisors had trouble with it. So it was all screwed up instead of doing a simple system that worked, we didn't have a problem. We had rejects, but a tolerable level. So anyway they set this mess— this program up, where I had to go to it and a bunch of other sort of key people, some of them lead-men on the floor, a little above average working person. And we took it— so that MTM, Motion Time Management.

BM: [talking with Lee] Motion Time Management, I remember it so well because he'd come home...

DH: [Laughs]

LM: So here's this girl on the machine, I forget where we start, but we'll start with the — here's the mold [gestures cupping his had]. First of all, well here's the mold, we'll start with it right in front of her. So okay, then the machine opens. She'd start with that. So it takes her six inches to slide that in [gestures sliding into machine], so to slide something half a pound six inches according to books, it takes three seconds.

DH: [Laughs]

Continues to
talk about
MTM.

LM: Then she has to reach eight inches down to push a button [gestures button push], and now to reach with your hand eight inches takes two seconds. And then you do the.... So you add all this up, so the cycle is sixty seconds maybe the same, but probably not. Probably way more in reality. So then when new products come on the line, that's they way they did it. So they would make a new mold, so then there'd be a girl out there studying how long it took to— because this is a bigger mold with different weight. So pathetic!

DH: [Laughs]

LM: Because number one mold, the person doing the molding may be a beginner because— but the one doing this was sort of a graduate, she's pretty sharp. And then to add it all up and make sense of it, somebody interrupted the thing and so this went on... That is one of the first moves that sent Tek in this... That's probably why they had to hire so many people. Instead of sixteen to do all this kind of stuff. Because they were doing it all over the company, not just in injection molding, the sheet metal, everywhere. Pathetic! Better not quote me on that....

[Everyone laughs]

BM: Well one of the things that I remember when we were living in Vancouver is I had went in a few times to the plant to pick Lee up or for some reason. And you would go into the back and they would have like, I don't know how many machines they had...

LM: about twenty.

Adds specific details of MTM and was not satisfied.

BM: About twenty machines, and then you would go into the front part and they're just this sea of desks...hundreds of desks. Well you know one machine can only support so many desks...

LM: At least sixty, I would guess we only had fifteen machines and we would have at least eighty support personal. And it should be...[Barbara starts talking] the other way around.

BM: And you just cant...you aren't supporting...[while Lee is talking] You aren't supporting those many people with those machines it just doesn't...[Lee starts talking].

LM: In our place that we run now, highly sophisticated company, you ought to come out and see it, we have thirteen almost new, with robots, new machines, with thirteen employees. And

CV: Plus management you talking about.

LM: well three yeah. Three management. And those that, they're not each running a machine, they're doing secondary work trimming parts and stuff like that, shipping them, all that there's about five guys on average that are running these thirteen machines. So we have a ratio of almost one to one, so theoretically if we had fifteen machines there maybe even give 'em thirty people in the office, not a hundred or whatever it was. But that wasn't just us that was all— they'd moved a plant into Wilsonville, same thing.

DH: Yeah.

LM: Highly inefficient...

1:07:33

Barbara describes what Lee's workplace looked like

1:08:13

Lee relates Tektronix to own company.

<p>1:09:15 End of Recording 2 (File was split by DH using edit software, interview continues on part 3)</p>	
<p>Time code: 1:09:15</p>	<p>End of Audio File 2.</p>

Time Code	Transcription
	<p>Audio File 3, 28 minutes, 08 seconds. Continued from part 2</p>
<p>0:00 – Question about women working with Lee. Talks about disadvantaged worker</p>	<p>CV: Now Maria was an engineer? LM: Yeah, and a sharp engineer. DH: Were there a lot of women that worked on the floor? LM: Quite a few, they were very good. Now I was going to back track a little bit, When I first went to Tek with a thousand people, everybody was just first</p>

program.

class person you could visit with. But then a program came along were they had to hire so many disadvantaged people. Which was a good program but we got lots of people, good workers and everything. But you'd start hearing a lot of swear words. When I first went there you didn't hear anybody swore, I don't think you could smoke on the job; there was hardly any smokers. My lead man **Ivan Arnold**, who I mentioned, bought a new car and he also took people...what do you call it when you take people with you?

BM: Carpool?

Continues to talk about changing workforce.

LM: Carpooled, had he said, "Hey, with my new carpool, there's no smoking in this car." Well at that time that kind of unheard...you know he's kind of a hard nose to say that. He was ahead of his time in so many ways. But then gradually the swearing came in. You had more people that were drinkers. You know, you can tell drinkers, if they're excessive, just by the way they look. And the overall, I shouldn't say the quality of the...

BM: Moral maybe too?

LM: Well the moral goes down with that yeah, yeah. So gradually, naturally when you have 24,000 people you can't make— because at first they could be very selective you know. And then gradually the government sort of — here we're selling all— most of our scopes are going to the government so got a hire— In fact we hire people that got out of jail. In my group there was a guy that was a murderer. He got out several— he was a sharp mathematician, he was one— I wish I could think of his name, but it wasn't his real name. And I was one of the few people that— I was actually, there was **Howard Lewis** that over me and then I was over him. And **Howard Lewis** and I and top management were the only ones that knew that he was a murderer. For the life of me I can't remember his name. I'm going to look **Howard Lewis** sometime. But a good worker so was certainly— I think that his big thing, that he held up a train. And

0:3:02
Question of
why
Washington
County?

the only reason— you know he was an old guy, at that time he was probably sixty and I was maybe thirty at that time. So he might have been the guy that held up that famous train, in the hold up they managed to murder a couple of people. But anyway, we're way off base here.

DH: Why do you think the high-tech industry has worked in Washington County, and stayed here?

LM: Very obvious! It's so obvious. It's because they got a start from Tek and all of these start-ups companies and the government, the democratic government supports all— they brought in all these schools to support Tektronix and Norm Winningstad's company and Intel is always supportive of technology— State-of-the-art. It's Tek and Intel and Norm Winningstad, Howard Vollum, and all of the [inaudible] Earl Wantland and all of those guys.

BM: And don't you think that Tek encouraged little start-ups too?

LM: Oh well, the other thing was they did— I didn't— I stayed away from classes or what ever you called them. Because I wanted to work— I was probably not a good employee, I wanted to do a good job for eight hours and go home have free time, not go to classes, not anything. Not have to think about work tomorrow because I tried to keep my job simplified. So your answer, I took about that one course, I took a little drafting class once. But that was one of the things they succeeded at. Oh, the big thing is, you could take anything. If I wanted to be— if I'd wanted to take an electronic course Tektronix would have paid for it! Or if I wanted to be— learn more about CNC, injection not, but to make the mold, Oh we'd pay for it. You just put your— come back— maybe later on there might have been a little charge I don't know. But that— It boils down to education and the guys that started Tektronix. I guess you probably knew that Intel almost didn't occupy this building right down here? [Points out the window down the street] The first one? Right you know that story.

0:5:05

Talks about getting clients for his own company.

DH: Right, yeah. Where— Are a lot of your clients today some of those spin-offs from Tektronix? Or...

LM: No...what we had.... oh...My big client was the dental industry. Did I already tell you that story?

DH: No, no.

LM: Well anyway, then when I came back in eighty-three, I knew that I had to get business, so every day I called, I looked in the phone book. We didn't have resources like...Google now that you have and all that. But anywhere I could look up, the trade magazines or anything. Because we did get those, the plastic trade magazine, that had adds in them and stuff. And information about how to mold and names of companies perhaps. So I happened to one day— so I'd call five people on the phone a day. And so many of them interested and none of them were impolite. And so got a hold of this... Marus Dental, its that what it was called then?

BM: Umm, I think so...well I don't know if it was called that but I think so.

LM: Yeah, Marus Dental in Bend, have you heard of Marus Dental in Bend?

DH: No.

LM: Well, they were a spin-off of...what's the company that makes the valves? Over...

BM: Oh, what's it called ill think of it in a second.

0:6:37
Williams Air
Control was
Lee's first
client.

LM: You only know so much. Anyway, they were a spin-off of a company, and you'll know the name that makes valves and stuff...

BM: Williams Air Control.

LM: So...Williams Air Control. So they started up right after the war. So if you go into a dentist's office they have all this air equipment blowing out stuff and they have water that goes along, so there's a lot of electronic equipment, or plastic parts I should say. And so I got a hold of the purchasing agent there, a very nice guy and he and his chief mechanical engineer came in to my little shop in the back, [points in front of him] by then I had my first machine and two home made machines that could produce pretty big parts by my standards. So they came in, and especially the engineer, he was a hands on guy, he just loved my little shop because he'd grown up doing things. He didn't just go to college in fact I'm not sure if he went to college. And so right away he liked it and we hit it off right away. So then, by that time I was maybe making a part or maybe they came in for the first part, I don't remember that. But they went back and pretty soon, every week or so I'd— ill show you some of the parts sometime. Made some parts for them, little parts. And then...Oh then I got a vary sophisticated part, I wish I had time to...

BM: Oh that... [Both start talking at same time] are you taking about that clear one?

LM: You know out where my drill press is honey? Where my drill press is I have all those, and get the one with the threads in it.

BM: Oh yes...[gets up and goes into shop]

LM: So I make a part, if I'm going off get me off this tangent will you.

DH: No all right. It's all right.

LM: A part this big around [makes a small circle], and this long [about an inch or so] with about a eighth inch wall thickness, and it had threads in it now its like the threads on a thermos bottle, there not tight threads, there very coarse threads.

[Noise from Barbara walking in with a tub of parts]

0:08:55

Notes how other friends that left Tektronix helped him make parts.

LM: Well my little reason for my little success, not compared to the big guys, little success, was when these people would call me, Marus in particular, they say, "Well can you, we need a screw machine part, can you make that?" {LM:} "Oh Yeah I can do it!" Or "we need a sheet metal part," {LM:} "Yeah I can do it." So with my resources from Tek I knew guys that had left and they had bending machines, they had screw machines, so that made easier for them. I would get these sorts of parts made. "So we got this big part that's too big for your machine" {LM:} "Oh that's ok ill make the mold and ill get it farmed out and we'll mold it." So it was about a two-ounce part close to two ounces and my homemade machine would only go up to one ounce. So they just sent me a complex drawing and maybe a part. I'm not sure of they had a part or not. So I took it to this same mold maker that I told you worked out of [inaudible] that gave me a hell of a good deal. Unbelievable. And so I made it, I had a guy, M&M Molding over in the Sellwood district, took it over to him, it was a nice mold, he put it in, but remember it was unscrewing. Now when you have to unscrew a part, first of all you've got to put a lot of mold release on it so it will unscrew. So he didn't do it while I was there unfortunately I was home. And he said, "oh we can't do this." he said, "we've got two shots and it's just too much trouble." And I went out and I went out and tried to tell him how he could do it. No, he got negative. So I picked up this mold that was probably the most expensive mold I'd ever made at this point. Two or Three thousand bucks. And most of my molds were under a thousand [more background noise]. And if I can do this...

Talks about making a difficult plastic part [lots of background noise from going through the bin of parts]

BM: we're in trouble.

[Sets down bin of parts]

LM: Well just set down here and Ill get that, and I wont get into all this other...[shuffles through bin making several seconds of noise]. Anyway it doesn't matter. It was about this size, [pulls out a one inch plastic part]

BM: Ill find it,

LM: It was about this size, doesn't matter. [Noise continues] But weighed twice as much. I could have molded this with my one-ounce machine. So I looked at my one-ounce machine and said [inaudible]. I was able, I told you about this big cylinder that comes down, so at that time I only had a cylinder this big. So I planned ahead and had lots of big air cylinders, so you know if I took this big cylinder and put it up there and made it a long stroke, it might be able to shoot out two ounce parts. It just might be able to. [Noise continuing] So I took the weekend and did that, not bad at all because also, just a couple of miles from me was a real sharp machinist that could cut that thing down to make it the right height and hook up to the stuff, so went over and he did a lot of work for me so gave me priority so over the weekend I got this done. And had to do some things to get this bigger, [inaudible, noise continuing] to fit this big mold in there and so okay, I do it manually, do everything not automatic, close the mold, the clamp builds up pressure, and then fire that! Bang! I put a lot of mold release on it. Yeah, the parts all there and oh its so hard to get off. Oh god well, I could do it just with my hand. So I said. "Wait a minute." And it was a certain color, and what was the color? [Inaudible]

BM: Yeah, it was a gray color.

LM: Yeah, it was in interesting color. [Inaudible because of noise] Chinchilla

Continues
with how he
made a
difficult part.

gray.

BM: Oh yeah, chinchilla gray. [Inaudible]

CV: There is a gray one over there right under that box...[inaudible].

LM: So it cost a lot of extra money to order the material that had the color in it. But I had to bite the bullet and buy a hundred pounds. Twice the price of a hundred natural pounds. [Noise continues] But also, this ABS this stuff here [picks up a piece] this nice hard material. But I said you know if we ran that out of polypropylene we have some of that that would unscrew easy. So I got a hold of some quality polypropylene with chinchilla gray and put in there and purged out the other stuff and Bang! Opened up take my hand and unscrew it, but later on I even made a little device to make it easier. [Noise stops] Just come out, and they said, "Yeah, polypropylene doesn't make it, in fact it's better." Because they can wipe it off better doesn't— it's very slippery you know. So that's the story of that. We made a lens there I've stuck my neck out to make that on my small machine [picks up a clear lens from the bin].

DH: Oh wow.

LM: that's for a back-up light for a...

BM: oh, for a Corvair.

LM: No not a Corvair, but a Falcon.

DH: Oh!

LM: about a sixty-two Ford Falcon. Now that is hard to make.

DH: Yeah.

LM: It has this kind of thing there [points to reflecting lens].

CV: remember these? [Picks up a set of plastic parts].

BM: we made a hundred million of this.

DH: Oh really?

LM: Oh this was the first part that I made for Marus. In fact all— there's about five little...

BM: Dental companies

LM: Dental companies around, and they all know one another because all of them worked at that company.

BM: Yeah, Williams Air

LM: Williams Air. So when they found out that I was making these for— well actually I started making them for Forest. Forest Medical. It was a little guy that had a small— and then Marus found out about it so they made them, and then Marus made this similar thing but just a slight change. But see how easy these are? [Points to several small cylinders]. Now this was too big to run on my original third, but I could just kick these out every thirty seconds. Just like that. And then there was a smaller size; well eventually we made a fifty cavity die. So a lot of my bigger machines we could shoot fifty of these at a time.

BM: Yeah and where they would cut off...

0:14:20
Made parts
for Forest
Medical

LM: And then they automatically cut off so we would— Oh I supported all of the kids in the neighborhood. This Jeremy Benedict, I'd pay them by the piece like a tenth of a penny a part. So those kinds could just go [gestures running hand along parts]. [Inaudible]

BM: they would race to see who could get the parts....

LM: They'd make minimum wage or better, every kid in the neighborhood, they'd come over "got any work?" Because they're making these by the...twenty thousand?

BM: Oh, so many.

DH: Wow.

LM: Or more, and then they went to different ones and then they would trim these the little things too [points to a small nub on the plastic part]. But these kids, and they could watch TV, we had TV then. But if you paid them by the hour it would cost more...[laughs]

DH: oh yeah, [laughs]

LM: But that worked out for— and it taught them all— my son John did a lot of the trimming. Because he wanted money...[interrupted]

BM: He was really fast.

LM: Seriously, he would take that and just [gestures trimming parts]. Just like that.

DH: Wow.

LM: So I'm proud of that, that's the thing I'm most proud of...[interrupted]

BM: ...[inaudible]...company...

LM: All of those kids, I taught them how to work.

CV: Yeah

DH: Uh huh.

BM: Its true, it's the best thing you could teach a kid.

LM: Maybe about a dozen kids in the neighborhood, when they were ten years old.

DH: Wow

BM: So look at this as like the history of our life here [points to the bin full of plastic parts].

DH: Yes

LM: Well that is something you should mention about Tek. All of these companies around here were guys that left Tek and they hired people and they'd train people. So again all these big— why the electronic companies coming here there is people that can do things here.

DH: Yeah

LM: In Oregon, such a nice place to live.

0:16:07
Discusses
another
reason why
electronic
companies
moved to
Washington
County.

They enjoy
the weather in
Oregon

CV: did [inaudible] ever work at Tek to?

LM: Yes, he did, another one of my friends. We were so— I was so happy to step off the plane in it was raining, and about forty degrees wasn't it?

BM: Yeah when we came back from Mesa...[interrupted]

LM: Two weeks of hot weather, you really appreciate it.

BM: ...the air smelt really crisp and fresh that was nice, but it was cold.

DH: Yeah. Well I think we are about ready to wrap up... if you have...

[Laughing]

BM: Board you to death.

DH: No not at all it's been fascinating and I really appreciate being able to see some of this stuff.

LM: Well if you want to clarify anything, I'm as close as your computer or phone

DH: Okay

LM: I usually easier to get with the computer do you have our card and all that?

DH: I have your contact information.

LM: LBmason1?

0:17:15
Barbara talks
about early
days of their
company

BM: If you ever have time you give us a call and we'll take you out to our plant and you can go though it because it is really interesting.

DH: Yeah that would be really great.

LM: Oh you would enjoy my plant.

BM: It's so different then when we were in our little tiny building behind our house. Now we have this great big 10,000 square foot building.

LM: Now we only work Monday through Thursday we instigate the ten-hour day four days a week.

DH: Oh excellent.

LM: Our employees all like it.

BM: And were very unique because there are very few companies that don't run 24/7 in plastics and we just run four days a week and we shut it off at night and go home.

LM: Now we did the same thing that Tektronix did. We shut down between Christmas and New Year's and pay our employees for it.

DH: Oh, wow.

LM: and they've never been, oh we've let employees go but I suppose they've gone on unemployment.

BM: There was one lady that was working for us now that— she said— she was

0:18:13
Talking about
diverse
workforce of
their
company

working for some other company and they were working a lot of overtime and she has children and she said it was just— she just hated working so many hours. And said that when she heard about a company that only four days a week, she said she couldn't go fast enough to apply. [Laughs]

LM: We have all practically all nationalities. We have Spanish people from Guatemala, and Mexico and one other country down there.

BM: El Salvador

LM: We have a man from Vietnam, we have Japanese fellow that was born over here, the Vietnam guy was born in Vietnam. And we have, do we have an American Indian? I guess we don't.

BM: I don't think so.

LM: Seems like some other races,

BM: But its like the United Nations

LM: A few white guys too. Oh you know we only have one white guy on the floor? And Mexicans are brown aren't they? You call Mexicans? That would be Kevin,

BM: Yeah.

LM: You realize...

CV: How many women do you have?

LM: Oh, a little better then fifty percent.

BM: Half women, uh huh.

LM: All hard workers, I don't know how they do it. We have a little rule at our

Work ethic of
their
company

company that might sound not too good, but nobody sits, everybody stands, even the officers of the company. Except we have a lunch room,

BM: There's no chairs

LM: Because my youngest son studies that stuff and read articles for it. Don't provide chairs it's— People like a lot of people are sitting down when they are working, but they are slow to get up to open gates and it's significant at the end of the day. And they get a break every two hours.

BM: Well and you're a little more alert if your standing up then when your sitting down and you know when you're running a machine you have to be really alert. The machines...

LM: And you can walk back and forth and your right there standing where you push a button if a red light comes on you know,

DH: yeah, for safety?

LM: To stop things. And you can walk back and forth in front of the machine, you know to get a little— just a step or two makes a big difference in how you feel at the end of the day.

BM: except for me, I get a stool if I'm running a machine, I don't have to do it anymore. Lot for long, there would be a real crisis for me to go to work again.

LM: There is a couple of other companies you talk to, and that's the guy that runs— you know my other friend...that...rose quite high. He's got a big company Quality Plastics, what's his name?

BM: Oh, okay, let me think a minute....

LM: The reason you want to talk to him, he worked for the first molder in

Talks about competitors and cooperation in business

Portland and he's a guy probably my age. Lee Dundas, Leeland actually but we called him Lee Dundas [spells name]. And his company now is called 3-D plastics. It's in Newberg. He's got his two sons running it a highly sophisticated company. At one time he was real big with lots of employees, but then he sold that, and the people he sold it to went bankrupt in a couple of weeks, [Barbara talking at the same time] kind of like the Tektronix plant I was telling you it would run out of business.

BM: a couple of years, yeah.

LM: They though they could run it but no they didn't, built it up. His two sons are running the company now, if you, you might even enjoy going out to Newberg in an interview. And the other one is this guy...you know? He's in Wilsonville now, Vision Plastics.

BM: Oh Vision Plastics.

LM: You know his name? Just give me one more second because he's an important guy. For a couple of reasons.

BM: Did he do blow molding don't they?

LM: No, no they're highly sophisticated.

BM: but don't they do rotational molding too?

LM: I don't think so. They might...Ill come up with the name in about thirty seconds. The story on the fellow, while I'm thinking about his name. He's the first guy going way back to about the time Kennedy came through, so let's say sixty-four. He cam in to my preproduction area and wanted some information, he was a young guy at least ten years younger then me, and right a way you

0:23:15
Compares his
firm to
Tektronix

meet certain people. I said, "This guy is smart." To myself just by the questions that he was asking. So then I asked him a few, and he was about the first guy at Tektronix that learned how to make molds using CNC. So and he's just a young guy just out of college. Brilliant soul, he worked for Tek and he started his own company Vision Plastics is the name of his company. He's in Wilsonville, and got big, big contracts, was very high priced because he realized he could get it, I didn't care for that form. He was really ripping Tektronix off, but don't say that. I was did a— after I retired I got a fairly sophisticated bit he sent me a few jobs but this fellow— Hear is another big mistake they made if you can bare with me. The head of merchants said, "well look at there's a dozen molding companies we're doing business with. Lets cut it down to a couple, it's too many. We'll cut it down to two and really closely watch." Well we were the ones that got cut out and this Vision Plastics and one— And these guys just— just for like setting up a machine five hundred dollars! I would have done the same thing for a hundred bucks, in fact I did. But the new theory was you worked with a couple of companies and then you kind a of watched what they were doing and the buyers no nothing about molding. When they say it's five hundred dollars to set up this little part [grabs a small half inch long part] they don't know that they got it set up in ten minutes, because they know nothing about it. So they hire buyers for plastic parts that know nothing, now the good ones in old days use to go out and they'd get it explained, "Well yeah this great big mold well how long does that take you to set up?" "Oh about three hours." "Well this little one?" "Oh twenty minutes." Well then on these little parts it should be thirty dollars to set up, which was about what we charged. They wanted a hundred bucks. [Lee starts looking through plastic bin for parts, slight noise begins] Anyway...Ron Stevens [spells name] now one reason where he got a lot of money to expand his business, he married the...the daughter of the guy that runs Shilo Inns. You know Shilo Inns?

DH: Yeah,

0:25:21

Talks about starting his own company with first machine.

LM: Very successful businessman, in fact did he also run Hollywood?

BM: I don't know.

LM: But I don't know if it was his daughter, but it was someone that was in that had to bank roll him. Money was no object, well if you build a state-of-the-art plant you're going to get business. We started, I told you about that molding machine, I'm starting to boast, I got to watch that. This is for you, I bought this molding machine for two hundred bucks, did I already tell you that?

DH: Um [shakes head no]

LM: And that's the only money we ever put into the company.

DH: Wow

BM: Actually that paid for itself.

LM: We never borrowed a nickel

DH: Wow

LM: It all came from these little profits that we made from Marus and building up the business and building up the— It all, and still does. Now for the first— we I came back in eighty-three till ninety-eight, I sort of stepped slightly aside, although I'm still the chief executive. The average was thirty percent per annum. But not only was it an average it never went below twenty-five, every year. And then since then they've maintained that thing and gone up even higher some years. But I think the average is still thirty percent, which is a pretty hard record to beat.

BM: I don't think they can grow much more without lousing their minds.

LM: Oh we don't want it; our big problem is holding it. Like Tektronix should have done. They never— number one they never should have gone on the stock exchange, then the stockholders started running the company, instead of the people. That was the kiss of death when they went on the stock market, believe me. So we're fighting, you see, what's happened you should have lots of customers. We're down to practically one customer that does ninety percent of our business. Because he pays us all the time and gives us more jobs, we can't turn them down, he has his own molding company Wilson Sporting Goods. They have their own molding company but they send the stuff to us because of the service. So we— with this Lee Dundas, we gathered up about thirty molds and just sent to Lee Dundas. Normally when you do that you say, "Okay, when you do that send us ten percent or something." Glen, I think he was quick, I could have had a heart attack, he just gave them to him. They couldn't believe it these Dundas boys, Lee Dundas's sons.

BM: [While lee is still talking] We just gave it, we gave them all the [inaudible] business.

LM: But I'm kind of happy we did because, it worked out, and there're servicing our guys. We didn't want to let them down and send them to some guy that would rip them off. So now that you found the way come on out more often.

DH: Yeah, Well I want to thank you very much giving me your time and your thoughts and Yeah.

Wrap up of
interview

BM: It's interesting isn't it getting this

LM: When you have time we'll drive out to Aurora now is where they build the planes, have you been out there at all?

DH: Ahh yeah actually

LM: Oh you have been there, yeah okay.

0:28:04

End of Recording 3

