

Forest History Foundation, Inc.
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ORAL HISTORY INTERVIEW

with

E. J. Stewart
Eureka, California
March, 1953

by John Larson

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Interview with
E. J. STEWART
March, 1953 - Eureka, California
By John Larson, Forest History Foundation, Inc.

I was born June 6, 1880, in Eureka, California. I was already around the lumber mills when I was ten years old - at the Eel River Valley Lumber Company's mill at Newburg, which is located about two miles south and east of Fortune, California.

At that time the logs were brought in by train with a little gypsy locomotive that ran down and dumped the logs in the pond right close the mill. This gypsy locomotive had a saddle back on the boilers that carried the water. There was no tender like there is on the ordinary locomotive. The back part of the locomotive had an overhanging platform that they used to carry the wood for fuel. The front end of the locomotive had a gypsy rig on it which could be disconnected. The locomotive would stop at the landing and they could connect up this gypsy rig and with a side spool; they could then load or unload logs by the use of a manila line.

The bull team brought the logs to the landing. The logs would be skidded over the top of the small logs or skids to make the operation smooth and reduce the friction on the load. If it was in steep country, they had mud roads. The mud road was cored out and, if it was very dry, they always had a man known as a water-slinger going along. They had various tubs of water scattered along the road, and if the road was dry, this water slinger would grab a can of water and throw it into the middle of the road where it would act as a sort of lubricant and allow the logs to slide down very readily. If it was too steep, instead of using water to keep the logs from running, he would have to grab a shovel and shovel dry dirt into the road to slow it up.

They used nine yoke of oxen. That was the standard team. The operation usually consisted of two, what we called, "sides." The small donkey with a crew of rigging men would be in one gulch, and opposite, a little ways off, if there happened to be another gulch - if the terrain was of that character - there would be another crew there. Each donkey crew would be making up their own load of logs. There was always a race to see who would get the load in first, because if they got their load in first, they could all set down and rest until the team came and took their logs away. So there was rivalry between the two logging crews all the time. This rivalry increased the output of logs wonderfully.

Falling of the trees at that time, of course, was all hand work. The choppers were always in pairs, the head chopper and the second. They would go into the area where they were going to fall the trees, and pick out the leaning trees first, which is the same thing they do now. They would put the undercut

in with an axe; this undercut was supposed to show the direction in which the tree was going to fall. After the undercut was in, they moved to the opposite side of the tree with a cross-cut saw - the length of the saw would depend on the size of the tree. They would saw for hours and hours and hours. After they sawed in a certain distance, the saw would commence to pinch (caused by the weight of the tree). Then they had to drive wedges in and take the strain off the saw, so that the men could continue to saw into the tree. Sometimes it would take a day, or day and a half, to fall one of the big trees when they were doing the work by hand.

They were always very particular, and would make a lay-out or bed so that the tree fell on relatively smooth terrain so that it would not break in falling. If possible they would fall the trees uphill, but with some of the leaning trees it would be impossible. So those trees would usually come out first. The idea was that if you go through and fall a lot of timber and then have to fall one of those leaners downhill, you might fall it over a lot of others that were already down and you would just break it all up. The idea was to try to pick out the leaners first when there was no timber down and save as much of it as possible. Then when you started to fall the others, you were falling them uphill; you wouldn't come in contact with those that had gone down the hill.

The wedges were made of steel, and as I recall, they were about three and a half or four inches in width and probably twelve or fourteen inches in length. Along with the wedge, they also had a little flat shin. The redwood tree is rather soft, and driving that narrow wedge in, it would have a tendency to crush into the lower part of the stump of the tree. So they put a flat piece of steel - the shin - under the wedge, that was of considerable more width than the wedge, and drove the wedge in over the top of that, and it would keep the wedge from sinking into the tree stump.

In the early days here, before my time, the only method they had of moving the logs into the chute was with the jackscrew. But after we got those little Dolbeer donkeys, they would put a line on the logs and turn them whichever way they wanted. They started using these donkeys sometime in the '80s.

When the bull teams were hauling the logs in, they had a crew of men who were expert axe men, called log fixers. You see, the first thing after they would fall the tree, men called ringers came along. They would cut a ring around the bark. Behind them would come the peelers, and they'd peel the bark off. Well, then these trees were usually cut a year or two years ahead of actually taking them out of the woods so they would lose weight. In the fall of the year, after the first rain, they would set fire and burn up the debris, the bark and stuff, so that it was easier to get the logs out of there the next year when they wanted them.

Then, after a log was bucked into length, these log fixers would come along and they would snipe a little off each end of the riding side, and smooth the log over so that when it was rolled over into the chute and moved to the

skid road, it had a nice smooth surface to slide on. Now these log fixers were very clever men. They used a broad axe with about a sixteen inch blade; and they would snipe the end of this log so that when it moved along it wouldn't bump into anything - it would skid up over it. In other words, it had a nose on it like the runner of a sled. They put one on either end, because you couldn't tell which end was going to go first. They had to size up the log to see which would be the down side when it was finally rolled over and got to where it was going. They tried to get the wide side of the log, and if there were any bumps or gnarls or anything else on that side, they would have to hew them off so that they had a perfectly smooth surface on the fact that would eventually be down in going over the skids. Those were the log-fixers.

If it was in steep country, they had another group of men that you don't see in the woods any more - the swampers. They had a head swamper or boss, and he would have ten or fifteen men under him. It depended on how much work he had to do. Their duty was to go through and make roadways. They made those skid roads, and they made the mud roads and the log chutes also. Now, for instance, there may be a donkey up on a side hill and they'd want to get these logs down to the bottom of the hill where the bull team could hook onto them. Well, they would dig out a chute up to the donkey, so that they could roll the logs into this chute, and down they would go by themselves. That's where the swampers came in. Wherever there was a temporary road, where there would be four or five trees in a particular locality, they were continually making these little roads. They would go in and make it easy for these little steam donkeys, because they weren't too powerful in those days.

These donkeys would roll the logs into this chute, and they had to roll them in so that the side the log fixers had smoothed up would hit the bottom of the chute. In other words, that part would be down. Well, then they'd scoot down in this chute, down to the loaders. The head log would be a big one. And after that had skidded out as far as it would go, the next log would come down. They would have to hurriedly throw a chunk in between that and the next log so that they wouldn't bruise themselves. At the same time the loader had couplings that he would use to couple each log to the next one. These were called dogs. It damaged the logs a little. For instance, they had to chop little holes to hold the hooks on this bridle. It was a double affair. There would be one section with a grab on the end of it, and another one with a grab on it, and where the two met there would be a ring to connect the two ends.

They would cut a spot in one log and drive these two grabs clear in so they would take a good hold. They would do the same with another log, so that it was a regular bridle effect. Well, then, where the bridle from each log came together they would hook a hook into this ring and then would have the logs bridled up, one to the other. The bull team would hook onto the head end of that string of logs and drag it off through the woods to the log landing, to be loaded onto the logging cars.

These early day loggers used to do a lot of clever engineering. You know, it's remarkable to think of the things that those skilled old-time loggers would do. They weren't engineers as we understand engineers now. They were just trained men, and it was remarkable the roads that those people would build, and build in an economical way so that they could get the logs out. You had to have a little grade on everything. An ox team couldn't pull anything on an upgrade; that was impossible. They had to go in and size the country up and see what kind of terrain it was, and do all the planning so that when the logs were coming down they would at least not have any adverse grade. They could go on the flat, but that flat would have to be on the skid road. There could be no upgrade. The size of the redwood log presented some problems, but the old-timers seemed to be able to overcome that. The bull team took the logs down to the railroad and then the train took them to the dump at the mill pond.

The old mill at Newburg was to my way of thinking quite a curiosity, because that was in the days before there were bandmills. The logs were hauled up into the mill and rolled onto the carriage and a double circular saw sawed the logs. Now, there are what we call steam feeds or cable feeds to move the carriage. But this carriage at the Newburg mill, when I was there as a youngster, had what they called the ratchet and pinion drive. There was a little geared affair on the carriage, and the carriage was pulled back and forth by this cog gear. It run over a flat business that had teeth on it. The gear or pinion turned and pulled the carriage back and forth. I think they called that a ratchet and pinion. But that was the method for moving that carriage back and forth. The power would come from steam. This Newburg mill was a steam mill, and the power to run the carriage was from a geared shaft. The carriage was propelled back and forth by running over this flat gear business that was lying flat on the deck. They burned the fuel right from the mill itself - slabs and sawdust. They had a little planing mill in connection with it, and the shavings from the planing mill was an added fuel.

Those mills were all complete within themselves - the lumber was complete when it left the mill. The lumber went from the headrig to an edger. From the edger it went to the trimmer, and after trimming it was sent out and sorted into sizes and shapes for one thing and another. The orders determined whether it would be run back into the planing mill and planed, or whether it would be sold rough. But the lumber was good - you could build a house with it. There was no effort made to dry lumber, never thought of drying it; that was unheard of. It was graded into three grades - clear, common, and refuse.

The dried lumber business is something that came in a little later on. In the early days of building houses around here, the carpenter would get out on his lot and figure out what lumber he wanted. The first thing he would get on the lot would be the outside finish, and he would immediately put a man or two to work sticking that up in the air, so that while he was building the house, the finish would be air-dried. In about three months time, when he was ready for his finish to go on, the lumber would be fairly air-dried. Later on the mills commenced to air-dry all their lumber, but at first there was no air-dried lumber.

dried lumber.

The early day lumbermen around here were mostly state of Maine Yankees and Blue-noses from the maritime provinces of Canada, Nova Scotia, New Brunswick, and Prince Edward's Island. Later on the regular Russian Finn, not the Swedish Finn, but the Russian Finn came in more on the logging end of it. And after that came the Swedes and later on the Italians. They were nearly all single men. There were cabins for everyone, and they all ate in the large cookhouse. The cooks were mostly Americans - Yankees.

The lumber from this Newburg mill went by railroad down to Fields Landing in Humboldt Bay. They had their own shipping docks there and it was shipped by boat down to San Francisco. In the early days of the sailing schooners, you had to load by hand; there was no power. The power had to originate on the ship. If there was no power on the ship, then the lumber had to be loaded on the ship by hand. For years and years we had a line of schooners in here and the lumber was all loaded by hand and taken off by hand. They never loaded by chute here. That would be done along the Mendocino Coast. They wouldn't use that up here. Where you have a harbor you don't have to do that. They call those outside ports dog holes; that's where a ship could not get in close to the shore and chutes were then necessary.

My first job in Eureka - that was after I finished school - I came to work down here at the Dolbeer Carson mill as a lumber handler. It was quite different from the Newburg mill because the Dolbeer Carson mill had bandsaws. And while it was a very crude mill as compared to the modern mills now, at that time it was quite up-to-date. One of the disadvantages of the circular mill was that the cut or the kerf is about a quarter of an inch. You are taking out that much sawdust and throwing it away. With the bandmill you get down to considerable less kerf and you get a smoother cut. In the circular mill it was difficult to get the teeth pointed up in such shape that you would get a very smooth surface on it, while the bandmill is very clean and very uniform. They had trouble at first keeping those early bandsaws in shape. That was something that took a lot of time. They had that pretty well ironed out by the time I got into the mill. That was in September, 1898.

At that time our company was logging in Field Brook about twenty miles north of Eureka. First they contracted to have their logs hauled in over what was known as the Klamath-Eureka Railroad, which belonged to the Hammond Lumber Company. As time went on the Hammond people kept upping the cost of bringing the logs in. And old Mr. Carson, who was still alive at the time, thought he would like to own a railroad of his own; so he put in his own railroad. It was known as the Humboldt-Northern Railroad. The logs were brought in and dumped into the Bay on the other side, over just above the Hammond mill, and there they were made up into rafts and towed over by boat to our mill on this side.

They were stored over there in the Bay. Well, you can't store them too long because the Toredo get into them and eat them up. That's a salt-water marine borer. If the logs are in slack water, so the tide goes and leaves them high and dry during a little period of the day, they don't affect them much. But if they are in active salt water, floating all the time, in about six months they start into them. By the end of a year they pretty nearly ruin the logs.

The carriages in the Carson mill had a 16-inch steam cylinder which moved the carriage back and forth. This was very powerful and very accurate. The sawyer controls the speed. The speed with which you can cut depends on the size and texture of the log. Some logs have hard streaks in them. If you force them too fast, the saw will have a tendency to waver a little bit - what we call snake - and it will make uneven lumber. So we have to watch that very carefully and not force the saw faster than it will cut a straight line. The sawyer has a feeling for that; he has the feed lever in his hand all the time - never lets go of it.

To turn the logs over in the old mill, they had a very crude method with a canting gear overhead, and some kind of half round machine that we called a nigger on the lower side. The the later mills have the steam Simonson hook that will reach up and grab into a log and turn it over just while you're looking at it. The only time you have to put a chain on a log and use a canting gear is if it happens to be an ill-shaped log, something that the Simonson hook won't hook into. But most of the time the hook will grab hold of the log and pull it right over.

We have two men on the carriage - the setter who sets for thickness, and the dogger to dog the log into position - and two men on the deck. They have to watch, in this mill, that the large logs go to one rig, and the samller logs go to the other. The man on the deck has to watch that. We have a 10-foot rig and a 9-foot rig. The 10-foot rig can take any size log, while the 9-foot rig can't take anything larger than five feet. Both rigs go at the same time.

The old mill was torn down, I believe, in 1924. This new mill was built in '23 or '24. It was the first all-electric mill that was built on the Pacific coast - most modern at the time. Today electricity is much cheaper than steam. They produce their own electricity using refuse for fuel. To get the fuel properly prepared they throw trimmings, ends and flabs into a machine they call the hog. The hog grinds it up, not too fine, more like chips and slivers. This is mixed in with sawdust, and the dry shavings from the planing mill and that mixed together makes a nice fuel.

You still have to have a steam-fitter or plumber, because the carriages are all operated by steam and the big cylinders that kick the logs out of the deck to either side are operated by steam. Then, of course, you have steam going to the dry kilns. You have to have a steamfitter to take care of that. Some of the cylinders around the mill where it isn't too heavy use air.

In our old mill, I guess we were the only ones that used nothing but manpower to move the lumber around the yard. When I first went to work at the old mill, we had what we called three-wheeled dollies. We'd put the lumber on them. Two of us worked as partners. We had to shove the lumber out into the yard and distribute the lumber where it belonged. And that was quite an education in itself, because at that time the lumber wasn't graded. It was piled up in these little dollies, sent out, and you would come along, you and your partner, and you wouldn't know what you had till you started distributing it. You had to know how to grade every piece of lumber that was on that dolly and put it in the right place. Otherwise, somebody would come and tell you about it.

Later they put in a sorting table and then had head markers who graded the lumber with the proper marks as it came along, and the man in the yard didn't pay any attention to the grade; he just paid attention to the mark. Later we used little jitneys - little four-wheeled machines with a Ford engine in them. We used a wire cable to hook onto the end of the truck and a chain around the load to keep it from slipping. We used the jitney to haul the lumber to its proper location. We had, I think, seventeen jitneys here at one time. In time, we got rid of them and put in the carriers and the lift trucks.

There were quite a number of changes made in the woods in regard to getting the logs out. For instance, the bull team was done away with and what they called the bull donkey - it was quite a large steam rig set on skids - came into use. It could be moved from place to place. It was set in a locality. They would hook a wire cable onto a log and the power from this bull donkey would haul the logs in. It would be stationary until the area in which they were logging was logged out. They also improved on the type of donkey. Instead of the little Dolbeer donkey they had been using, they developed a larger and more powerful donkey called a yarder. They commenced to use yarders to drag the logs into an area where the bull donkey could hook onto them. A yarder was a heavy donkey something along the lines of a bull donkey but setting out where it would be used to drag the logs right in overland to a position where the bull donkey could continue dragging the logs into the landing.

But the biggest revolution came when the cat tractor came into the woods. After the cats were developed so that everybody knew how to take advantage of them, they were a wonderful thing, because now you could go anywhere. They still use yarders - skidders. They use the cat to haul up to these fellows - these skidders. Then from the skidder they can haul into the landing.

At one time here when most of the companies were doing what they called clean logging, where they cut everything on the ground, there wasn't a thing left, they used a high line. They picked the log up and trolleyed it right through the air until they got to where the loading pole was, then they'd drop

it at the loading pole. The rigging would be set with a tail hold on one side of a gulch and this big donkey would be setting on the other side. And through a series of cables and a carriage on the cable, they'd run out and pick up a log right in the air. I have seen where they would be a hundred feet in the air, just dangling. Didn't make any difference what size the log was - they'd pick up any size log. Oh, sometimes, if they'd get one that was too heavy, it would just kind of bounce along, one end would hit a little bit, but they'd finally get it in.

And now it's to the point where they have changed everything in the woods over from steam to diesels - now all the yarders and skidders, cats and locomotives are diesel powered. And the loading donkeys that they have at the railroads or wherever they're loading trucks or anything, they're all diesel.

The big change in the falling of trees came when they got the first power rigs for the drag saw. And from the drag saw they've developed the chain saw which seems to be the ideal thing now. It has been so successful that the falling of timber now doesn't present too much of a problem. Every redwood tree has what we call a churn butt. You know, it's very big right at the ground level, but it goes up eight or ten feet and then tapers into its normal size. In the early days with the hand falling, to fall a tree they had to stage up to get above the churn butt. They would be cutting that tree seven, eight or ten feet in the air. Now with the chain saw they stay right on the ground; they don't stage up on them. They used to try to get away from that churn butt. It was difficult to handle it with the methods they had then. You can imagine the tree would be maybe ten feet in diameter right at the butt, then maybe up 16 feet, it'd drop down to seven or eight feet. It was an awkward thing to handle - too difficult to get out of the woods. But with modern methods, they don't think anything of that. They cut it right off the ground if they can. It all depends on the character of the ground they're working on.