J. Neils Family, J. Neils Lumber Company

The J. Neils Lumber Company was incorporated on March 23, 1895 in Sauk Rapids, Minnesota with a capital investment of $30,000 (of which Thomas Shevlin and Hovey C. Clarke provided 60% and Julius Neils 40%.) In 1899 Julius Neils started a new mill at Cass Lake, Minnesota. In those years the universal forestry practice was clearcutting, and so as the timber availability was being exhausted near Cass Lake, Julius Neils went looking westward for viable timberland.

In 1906, the J. Neils Lumber Company began acquiring timberlands in Flathead County, Montana. Julius's strategy was to buy even numbered sections held largely by Anaconda Copper Mining Company. Purchases were made at $1 per thousand feet, and by the end of 1907, a full million dollars had been invested in timberlands in Flathead County. It is hard to tell how many total acres J. Neils Lumber Company eventually acquired in Montana because they bought timber by the board foot, and the land was usually included in the selling price, and so their records are primarily in board feet of timber.

In 1910, J. Neils purchased the Dawson Lumber Company in Libby, Montana that included 70,367 acres of timber land. Early operations were not successful, so in 1912 Julius sent his son Paul to run the Libby operations. When Julius went to Libby three months later, Paul handed him a check for $10,000, the first returns from the new venture. Earnings grew to $100,000 by 1913.

In 1913 business partner Thomas Shevlin died suddenly from Pneumonia. His son Tom took over as president of J. Neils Lumber Company. Over disagreements with the new president, Julius divided the assets with Tom and by 1915, Tom Shevlin received the Libby mill and part of the Montana properties, and the Neils family retained the Sauk and Cass Lake Mills and some timberland in Montana. Due to a struggling business J. Neils was approached in 1918 to repurchase the Libby mill and holdings, and on January 13, 1919 the re-acquisition was complete. After returning from military service, Walter Neils was appointed as the general manager at Libby, a post he held until 1957; and George Neils became assistant to the logging superintendent, Ed Woodworth. Several years later George became the logging manager.

On June 1, 1922 J. Neils Lumber Company took possession of property and a mill at Klickitat, Washington. Due primarily to a lack of timber and the recession, the Cass Lake Minnesota operation ran its last load of logs November 10, 1923.

From 1930-1932, the Depression resulted in several challenges for the J. Neils Lumber Company. As the demand for lumber declined, the company looked for other revenue opportunities. They found a need for shipping boxes for fruit in Washington, primarily apples and pears. In 1931 they installed a small box plant and success was almost immediate. The company produced more than 1.6 million feet of box lumber. The other challenges centered on the collection of debt and utilization of bank credit.

selective logging designed to perpetuate forest. Their studies began in 1936, were put into practice in 1939, and to the best of our knowledge, no other company in the northwest had undertaken this practice at that time. They partnered with institutions of higher education, including the University of Washington and Yale University Forestry Schools. They had senior students conducting studies on their land, and they consistently employed graduate students in their forestry operations as interns. They maintained their own nursery at the Libby plant and supported an aggressive reforestation program.

The J. Neils Lumber Company and family were civic and community leaders and made donations of their time and money to ensure that communities would grow. Julius Neils had a marvelous memory and the patience and ability to impart knowledge to others, which in his later life was reflected in his business leadership. In addition to his dedication to his business, he was extremely devoted to his church and firmly grounded in his faith. To quote Paul Neils: "As we look back on the growth of the company, on the continuing accomplishments, we should not forget how hard was the work, and how slender were the immediate rewards. Profits were not diluted by generous dividends; rather, they were spent for more timber and more efficient equipment. With such a policy the company continued to grow and prosper." Julius and Mary Neils had 13 children, Julia, Martha, Anna, Ida, Paul, Walter, George, Martin, Marie, Henry, Gerhard, Marcus, and Victor.

THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW

COURTESY OF THE FOREST HISTORY SOCIETY DURHAM, N.C.

Forest History Foundation, Inc.
St. Paul, Minnesota

ORAL HISTORY INTERVIEW

with

George Neils
Libby, Montana
August 19, 1953

by John Larson

All publication rights to the contents of this oral history interview are held by the Forest History Foundation, Inc., 2706 West Seventh Boulevard, St. Paul, Minnesota. Permission to publish any part of this oral history interview must be obtained in writing from the Forest History Foundation, Inc.

Interview with
GEORGE NEILS
of the J. Neils Lumber Company
Libby, Montana
August 19, 1953
by the Forest History Foundation, Inc.

In May, 1919 I was transferred from the Minnesota operations to the operations in the vicinity of Libby, Montana. In Minnesota I was employed principally as camp clerk during the winter months and as time keeper around the plant in Cass Lake itself, during the summer months.

Our logging in Minnesota had been done with horses and sleighs and ice roads, and towing in rivers and lakes and so forth, the usual kind of logging done in Minnesota during that period. Out here it was entirely new to me because we had never seen any logging of that type back in Minnesota. We used only horses and here they used only machinery. Of course, we did introduce some horses then for certain chances which could readily be handled by horses. The necessity for using machinery was determined by the type of topography here.

Logs were brought in entirely by railroad. We had two types of machines principally for skidding, the donkeys and the four line Clyde skidder. The four line Clyde skidder was better adapted to the better ground where we could space our railroads more conveniently at certain distances. We tried to hold them on quarter-mile intervals if possible, that is the optimum. Of course we couldn't build the railroads up in the hills, if we had to get up high in the hills; there we had to employ the donkeys and reach out far and skid them down in tree lengths.

Of course, we were watching developments. When the cats came into the picture they were an outgrowth of the use of these machines during the war, World War I. Immediately then we started using them in the woods. In the year 1920 we bought the first tractor, a six cylinder Holt. With this machine we skidded tree lengths to the railroad and bucked these into log lengths for transfer onto railroad cars. We soon found that this system did not work too well, and therefore changed over to skidding of logs rather than trees. In doing so we found that the ends of the logs would dig into the ground on irregular terrain and that this caused a reduction in the volume which the caterpillar could bring in for each turn. One of our men got an idea how this could be prevented and recommended that we use a boiler plate approximately eight feet wide and six feet in depth, with a roll in the front, similar to the nose of a ski. We found that this helped materially, and this same system is still in vogue at the present time in connection with skidding of logs by tractors.

In the year 1930 we bought the first tractor equipped with a bull-dozer blade and we soon learned that this machine could build railroad grades at far less cost than the power shovel. At that time we also started experimenting with hauling of logs by truck and found that the truck was able to negotiate grades far steeper than what was possible with the railroad. We also found that we built roads at reasonable cost on the side hills, and then of course, we switched from railroad to truck. We quite the railroads entirely when we got done with the Swamp Creek area in 1935, late in the fall of '35. We've been using trucks ever since. That was about the same time that many of the other outfits began switching over to trucks. Areas which were considered inaccessible because of excessive cost, then became economically accessible, at least to a degree. As lumber prices increased, and stumpage prices increased, we could afford to go out farther.

The first trucks used were poor substitutes for what is being used today. They had a capacity of possibly fifteen hundred to two hundred feet per load of logs, whereas today it is not uncommon at all to haul loads of fifteen thousand feet. We soon learned that the smaller truck was not the answer to our problem, and consequently we discussed our problem with a manufacturer who was willing to take chances on building trucks which probably would do a better job. It is through the efforts of this company that we have in the Northwest today, a truck which can handle loads weighing up to sixty tons or more of pay load on grades as steep as fifteen percent.

As we found it necessary to employ larger trucks with greater capacities, we also found it necessary to build better roads. This meant bigger machines used in the construction of sub-grade and it also meant the application of pit-run gravel or crushed rock on road surfaces, particularly where speeds up to thirty miles per hour were desired. In order to do a first class job throughout, it was necessary to employ competent engineers for the location of truck roads, also competent personnel to supervise various operations, and particularly for equipment maintenance. Where at first we were able to do much of the equipment maintenance work in the woods after working hours, we now find it necessary to process most of the equipment through our general shop at Libby at least once per year. This means that a unit is employed almost constantly moving equipment from the shop at Libby to the woods and back again, in order to keep a round of trucks and other equipment moving through the shop continuously.

As stated above, we find it necessary and desirable to log practically every month of the year. We make an exception during the month of March, when the frost leaves the ground and surfaces become soft, particularly for the tractors skidding logs in the woods. We find it advisable therefore to accumulate logs during the early winter months for use by the sawmill during the month of March and in early spring. Then we again resume operations where the sun and wind have a tendency to dry out the

areas. This is particularly the case on the slopes to the south and west, and it is on these slopes where we have growing one of our better trees, namely the ponderosa pine.

Our operation at Klickitat was ahead of us with the adoption of a sustained yield program, because they had larger timber holdings than we did and they had a tract of timber which lent itself better to the adoption of that sort of a program. Studies were conducted there earlier. In fact, the only studies made were down there in reference to tree growth and classification of trees by crowns and life expectancy and volumes that should probably be cut per acre and volumes that should be left and the resulting increment per year in the trees not cut. And of course since they experimented and found it to be OK, we began picking it up here, and I think we were the first in Montana to adopt the program. Of course, we had to make very many changes in the program. We had more species to contend with and, in fact, we didn't know whether it would be good judgment to try it out in other species than the ponderosa pine, but we are doing that now, too. We're taking out the dead and the dying trees and leaving the growing trees to put on more wood, and each month we total these and calculate. Irrespective of whether the growth is comparable to what the increment otherwise might be we'll say you took that money from that tree and put it in the bank and collected two percent or three percent interest on it, we pay no attention to that because there are so many acres requiring treatment that if you didn't adopt that policy you'd be losing right down the line. So for that reason we're trying to cover acres as quickly as possible.

Our consulting forester, Dr. Meyer, made the original study. He was a professor at the University of Washington at the time, and now he is with Harvard. He is going to be in tonight be train, he and his son. They are going to visit this area and then go over to Klickitat - it's a yearly trip. He and the summer class students from the University of Washington camped right there in the area and they made the original studies - determined stand per acre and graded the trees, and got information with respect to growth on the basis of tree classifications, and location and this and that. Then we had to adapt all that information to the area over here. We didn't make a specific study here, it was easier to follow through.

Some acres you do practice sustained yield and some you don't. You run into certain situations, in larch particularly, where the trees are all large, over-mature, and you see that they are dying back - might be a dead spike up there twenty feet long, thirty feet, maybe forty feet, and understory coming in of other trees that are sapping so much moisture out of the ground generally that it doesn't leave enough for the old trees who have lost some of their vigor and so they're going out. But in a case like that there is no point in leaving any of the old trees. Oh, there have been some exceptions, sure, but generally they are being cut. But there isn't much of that. I would say it wouldn't be over, oh, five per cent of our acres that are clear cut. Of course at times certain economic factors

enter into the picture which upset your sylvacultural program. Which you can't get away from either. After all, it has to pay. If it doesn't pay, forestry is no good.

Once in a while we think we're going overboard. As the situation is now with reference to our fight against the bark beetle both in spruce and more so in our lands in the fir, and we have to go to exceptional practices and high costs in order to combat a situation that we just can't measure the results from in dollars and cents value because nobody has, you might say, tried it and proven that it's going to give such and such results. We're in the dark in trying it out.

(Every once in a while you hear the interesting theory that because forest fires have been eliminated with relative success, it is harder to stamp out some of these things.)

It has no bearing on the beetle. I don't think we would get any benefit from letting any fires run over any of our lands unless it would be in areas where we clear cut and where we have an unsatisfactory duff situation. In certain areas it's pretty deep - particularly in spruce areas and it does require contact with mineral soil for seed to sprout. When you plant radishes, you don't plant them on your lawn; you plant them into the garden that's been tilled. Well, it's a similar situation that we run into. Therefore we like to clear-cut, put a ring around the whole thing, broadcast burn, expose mineral soil, and let the seed blow in from adjacent areas.

I guess the first ones to adopt that program were the private timber holders on the Coast in douglas fir - block system of cutting. It didn't have to be a rectangular block - fit the country - a territory not over forty acres. Then a stand of timber, depending upon how the prevailing wind is in that area, blows seed in. It's having good results, I understand, it's closer to the natural way of reproducing. There's one thing very evident when you fly a plane over this country, the seeds blow a whole lot farther than given credit. They say you can't expect a seed from a tree to blow much over 75 to 150 or 200 feet. Hellsbells, you fly over this area with a plane and you can see where many square miles were burnt and blistered hard, but what've you got there now? You've got a canopy of the nicest, green young forest in there you ever saw. But I don't know who planted them. So a lot of the problem is to get these areas properly developed, with various standards of roads required to result in efficient operation and so forth, and try to hold your costs down and stay within the budget and still get it properly developed. There are so many different things that you could think about, that you're worried about, and finally you jump into it and get the thing settled.

In every virgin forest, trees are found in various age classes. It is therefore necessary to set up certain classes to describe not only the

age of the tree, but its vitality. This classification determines then which trees are to be marked for cutting and which trees are to be left for the second cycle cut. Since a large acreage is involved in the areas adjacent to Libby, Montana, owned by the company itself, as well as by the Forest Service and State of Montana, it is extremely important to cover these areas as quickly as possible with the first cut in order to harvest the merchantable dead and those trees which have a short life expectancy. Trained foresters determine the tree classification and then mark the time for cutting under the directions of the management in case of company timber, and under directions of the staff of Kootenai National Forest in case of national forest lands. This sort of a program is not practical unless fairly large acreages are involved.

When we bought a fairly large tract of timber in 1941, we immediately put into the sylvacultural program recommended to us by the consultant forester, Dr. Walter E. Meyer. Under his guidance, as mentioned before, studies were first of all made in our holdings in ponderosa pine areas near Mount Adams in Klickitat County, Washington, and from these studies it was determined that certain increment in volumes could be expected from trees of certain classifications. It was soon determined that it would be a paying proposition to remove from the forest, first of all, the merchantable dead and over-ripe trees, leaving the thrifty trees to put on more volume in the period involved in the first cutting cycle. In ponderosa pine type timber it is not desirable to have these cutting cycles any closer than ten year intervals, unless a very light cut is made in the beginning. In our case so much acreage is involved that it is questionable if we will be able to cover the entire area involved with the first cutting cycle in a lesser time than fifteen years. In order to accomplish this it must be determined approximately what volume of the merchantable timber should be removed in the first cutting cycle in order to be able to get over the entire area within the prescribed time. The greater the volume left for growth, the greater naturally the yield in volume per acre during the first cutting cycle interval.

This type of cutting cannot be adapted to all species or timber nor to all situations. In principal, however, the adoption of this sort of a program will unquestionably extend the life of the operations at Libby, Montana, and Klickitat, Washington, where our mills are located. The advantages resulting from the quick development of timbered areas are the possibilities of controlling fire and infestation by bark beetles or other enemies of trees. After an area has been developed properly, access to it is easy and examinations can be made at regular intervals determining the condition of the forest. When it is found necessary to remove certain volumes on account of blow-down, resulting from wind storms, or the killing of trees resulting from fire, or from insects, it is rather simple to develop a program and put this into effect.

To get quick information regarding the condition of the timber over large areas, the airplane is used extensively also. By observing the number

of crowns turning from a green to a brown or reddish color at regular intervals, it can be determined fairly accurately whether a ground examination must be made. Logging seems to be becoming more complicated every year. This can be explained possibly by the fact that more difficult areas are being developed constantly and there is greater cognizance also of the fact that a big job has to be done to conserve natural resources to the fullest extent.

COPY OF THE COLLECTION OF THE FOREST HISTORY SOCIETY DURHAM, N.C.

THIS MATERIAL MAY BE PROTECTED BY COPYRIGHT LAW

Forest History Foundation, Inc.
St. Paul, Minnesota

ORAL HISTORY INTERVIEW

with

Walter Neils
Libby, Montana
August 19, 1953

Interview with
WALTER NEILS
of the J. Neils Lumber Company
Libby, Montana
August 19, 1953
by the Forest History Foundation, Inc.

My father started in the lumber business the year I was born, 1888. He was living at Sauk Rapids, Minnesota, at the time and was in business with his older brother in a hardware store. He apparently decided the hardware business at Sauk Rapids would not support two families and therefore suggested to his brother that he buy him out or my fa ther would buy the brother out. The older brother decided to buy my father out, and that's how he happened to start in the lumber business. While he was still in company with his brother, they frequently had to take in logs as payment for hardware bills. They had these logs sawed into lumber at the local sawmill and then sold the lumber. I don't recall whether it was right at the store, but I presume they hauled their lumber from the sawmill to the store and then sold it.

When my father went into the lumber business he was in partnership with three people - himself, and a man by the name of Thayer (I don't recall his first name), and a man by the name of Buckman, who was a state senator. My father looked after the office management and did all the bookkeeping and correspondence. Mr. Thayer ran the sawmill and Mr. Buckman did the selling. The partnership did not do so well the first year - I'll skip the reasons. My father and Mr. Thayer bought out Mr. Buckman and then ran the partnership under the name of Thayer and Neils.

All the logs that we had came down the Mississippi River and were hand stamped "T cross N", meaning Thayer and Neils. The logs came down the Mississippi River with the general drive. I think it was the Rum River Boom Company that had charge of driving all the logs for all the companies along the Mississippi River. We had to catch our logs out of the jam that came down the Mississippi River, and of course we could not inspect every log that went by, and consequently some of our logs were left and went down the river as far as Minneapolis. Thayer-Neils made money on the lumber that they sawed at Sauk Rapids; on the other hand, they lost money on the logs that went by and were picked up by mills in Minneapolis, who apparently paid them whatever they chose to do, resulting in quite a loss on those particular logs.

In 1893, the year of the big panic, Thayer-Neils did not turn a wheel. However, in '94 they had a good operation, but in the spring of 1895 freshet high water in the Mississippi River washed out the boom at

Sauk Rapids. I do not recall exactly whether it was 1894 or whether it was in the spring of 1895; I think it was the latter year. They decided then that they would quit the partnership. Mr. Thayer had enough of the lumber business and moved to Riverside, California.

Father conceived the idea that if he could interest someone in Minneapolis that had an operation there to take care of the logs that went by our mill at Sauk Rapids, that the mill at Sauk Rapids would be a profitable proposition. He therefore contacted Mr. T. H. Shevlin, and the present J. Neils Lumber Company was formed as a result of that in 1895. As soon as they started operating the business expanded, and new improvements were put into the sawmill. They changed from the old circular saw to a band mill, and everyone thought that that was a marvelous change in the direction of saving sawdust, making more lumber instead of so much sawdust. The next big change, I think, was the introduction of the Hill nigger. I think that was the name of the man that invented it. The Hill nigger is still in use in most sawmills that do not have large timber where they use Simonson Turners or other equipment of that type. Some mills have both niggers and log turners. These improvements were introduced in the Sauk Rapids mill before we started an operation at Cass Lake.

In the fall of 1899 my father went to Cass Lake, Minnesota, to look over the opportunities there for building another sawmill. This was all Indian Reservation, but the Government decided to sell one section of land at the present site of the town of Cass Lake. My father bought forty acres, part of which was a swamp between the present Great Northern and Soo Line bridges. The mill there was built on pilings and when they started the engine that was to drive the mill, it shook the whole swamp for about two hundred yards around. I distinctly remember the pulsation from the forward steam engine. You could feel it in the machine shop. You could even feel it up as far as our boat house where we kept our small boats.

We continued the sawmill operation at Sauk Rapids for about ten years, after starting at Cass Lake. Surplus logs that were developed at Cass Lake were shipped over the Great Northern in solid log trains to Sauk Rapids and were cut into lumber there. It was not feasible to ship or to transport logs by water from Cass Lake to Sauk Rapids, as there were too many lakes to be crossed and river conditions between Cass Lake and Winnibigoshish were such that it would have been impractical to drive logs over that route.

I worked in the plant during summer vacations. My first job was piling wood. I distinctly remember that I worked ten hours a day and at the end of the day I'd earned $1.25. Later during summer vacations I tallied lumber for one of the graders that shipped out five-quarter and thicker white pine shop and also five-quarter clear Norway. The latter item was usually shipped to the Wabash Screen Door Company at Minneapolis. During the second summer while I was tallying, the lumber grader

quit to go to the harvest fields in North Dakota where they were paying much higher wages apparently than the lumber industry in Minnesota could afford to pay. An inspector from the buying companies usually was on the pile to watch the grade, and after the regular lumber grader for the J. Neils Lumber Company quit, the inspector suggested to my father that he let me try it. I had watched the grader carefully during all the time that I was tallying for him and knew the contents in board feet of every width and length, and also had a good knowledge of the grades. After my father had watched my grading for an hour, he said, "the job is yours," and I received an increase in pay of 2-1/2 cents an hour. The increase looked very good to a boy going to college.

The shop lumber, as a rule, was shipped in the rough, which is different from the practice out West. The grades of shop were very similar to what they are today. There have been a few changes made in cutting sizes, but generally speaking the grade is about the same as it was at that time. The reason it was not finished in the East and was finished in the West was the difference in freight rates - the fact that a finished board is cheaper to ship than a rough board. Freight from out West is a big item, while freight from Cass Lake to the consuming points was usually less than 20 cents per hundred pounds.

After finishing school, I worked in the office until it was time to start logging operations, and I was then assigned the job of camp clerk in one of our logging operations. I moved into the camp in September of 1908 - and did not come home until Christmas and then only for two days. I immediately went back to the camp and did not come out again until break-up time in the spring, which was about the last week in March. I kept time for the men, sold them their Peerless and Copenhagen snuff, and usually their wearing apparel, shirts and pants.

(Did you call that building the wanigan or not?)

No, the wanigan was a boat used on a drive. My recollection is that a wanigan always was considered to be a scow that was covered in which the men that worked on a log drive slept and ate, and where they were able to buy the supplies that they needed.

Lumber from our Cass Lake operations was shipped to southern Minnesota, Iowa, the Dakotas, Illinois, and some of the white pine was shipped East. Chicago and Milwaukee always were big markets for our lumber, but the state of Iowa, I think, took more than any other state. Besides white pine, we had Norway pine and a little tamarack. The latter species we'd usually saw into dimension and plankage. Norway was used for dimension and boards. The clear Norway was usually cut into five-quarter or screen stocks. We also sawed a lot of the Norway into dimen-

sions 22-28 long. At one time there was a great demand for long dimension in both Milwaukee and Chicago, and of course we took advantage of that.

The transportation of logs in our operation was almost entirely by sleighs. These were drawn by four horse teams on roads that were especially prepared for sleigh hauls. We had a "rutter" that cut ruts in the ground or swamps that they crossed. For hauling, these ruts and roads were iced so that we had practically an iced road from the woods down to our log landings, which were as a rule on the ice of the lakes north of Cass Lake. In the early winter we could haul only small loads of logs, as the ice was not heavy enough to carry the larger loads that we hauled when the ice became three feet thick or more. Usually the first loads to come onto the ice were small, and when the teamster came to the edge of the lake, he'd unhitch his horses and hitch them onto the end of the tongue so that if the load did break through the ice, the horses would not go with it. The "road monkey" looked after haying the hills. Whenever a load of logs had to come down an incline, the road monkey would run ahead of the load with an armful of hay and throw handsful of it into the ruts to slow the load as it came down.

(In your early days, say before 1905, or so, did you ever hear Paul Bunyan stories?)

I don't recall I heard Paul Bunyan stories until I began grading lumber. That was about in 1906 or '07.

(What is your own feeling about the Paul Bunyan stories? Do you feel that they go back earlier than that?)

I've never given that a thought. They go back as far as I like to remember.

In 1905 my father and Mr. Shevlin began to interest themselves in timber in the West. They began purchasing timber land in Flathead County, Montana, thinking that this was the closest, availably supply to the consuming area in the East. While we were operating at Cass Lake, North Dakota took a lot of our lumber, and we thought it would continue to take lumber from us if we had a plant in the West. The freight rates at that time were very favorable from Montana to North Dakota. In later years freight rates from the producing area in the West were grouped, and we therefore lost a lot of our freight differential. Losing this, of course, made quite a difference in the value of the mixed species in Montana. In the year 1905, Mr. George W. Millett, who looked after our timber in Minnesota, was sent to Kalispell, Montana, to pick up timber claims and buy timber lands from homesteaders. We continued buying timber for a number of years - I think until the depression hit in the fall of 1907. Very little timber was purchased in 1908. I don't recall exactly how much we bought in the succeeding years.

However, we had enough in the vicinity of Libby, Montana, to interest us in the sawmill that was being operated at that time under the name of the Dawson Lumber Company. This mill was purchased in 1911, and then was operated by us as the Libby Lumber Company, which was a subsidiary, entirely owned by the J. Neils Lumber Company. The J. Neils Lumber Company was still owned at that time by the Neils' interest and the Shevlin's interests. We actually began operating here in 1911. The Anaconda Copper Mining Company owned timber lands that had been picked up from the Northern Pacific land grant intermingled with ours, and in 1914 we made a trade with them, they taking the timber in the Fisher River area and we taking the timber in the Libby Creek drainage. We also kept the timber lands that we had north of Columbia Falls and east of Kalispell, and also the timber on the Tobacco River around Eureka, Montana. We kept our markets in North Dakota and, of course, developed markets in eastern Montana as this area was rapidly being settled and built up.

In 1914 my father and the Shevlin interests decided to divide up the property between them. The Shevlin group took the Libby mill; we took the Cass Lake mill and all the other property that went with it. We also kept the timber tributary to Columbia Falls and Kalispell and also the timber along the Tobacco River. The war had already started in Europe and as we feared that the United States would be involved, the J. Neils groups did not look for any expansion as many of the family group were of military age and, we expected, would be called into the service. A policy of accumulating cash was developed, and after the war was over, the Libby plant was purchased from the Shevlin interests, and has been one of the operations of the J. Neils Lumber Company ever since that time. I came here in January, 1919, as manager of the plant and have been active as manager ever since that time.

When I arrived, the mill was shut down; nobody seemed to know what was going to happen to the lumber business after the war. A large part of the production from the Libby mill had been marketed in Eastern Montana and in North Dakota, and, as Montana had had some bad drought years, I immediately discovered that we would have to find other markets for our fir and larch and also for the ponderosa pine that we expected to cut. I contacted our sales connections in Chicago and induced them to try a few carloads of 22 foot and longer larch and fir dimensions. The price was competitive with Coast fir and, of course, was shipped green as was the custom of shipping long dimensions on the Coast at that time. Our Chicago customers liked the larch and fir, and it developed into a steady market and is still.

We also have developed other markets that take the long dimension as well as the shorter lengths. Now all our dimension is kiln dried and is a much better quality. We also had quite a problem of marketing our ponderosa pine. Our customers in Southern Minnesota and in Iowa had been accustomed to getting northern white pine and were not familiar with the ponderosa pine species. We induced some of them to try a few carloads of the number

two boards. Apparently they liked them as a steady market for them has developed in that area, and these boards are at a premium today. Since that time, of course, other markets have been developed and our boards are shipped as far as the Atlantic coast and south to the Gulf of Mexico, into Texas and California. About the only state we do not sell ponderosa in is the state of Oregon.

At the plant here at Libby in 1919, the sawmill equipment for cutting logs consisted of two bands and a gang. The gang had been installed during the winter months to take the place of the horizontal resaw. Our sawing equipment now consists of two bands, two gang saws and one vertical resaw. Our mill at Cass Lake had had a gang saw. The equipment in that mill was a band saw, a gang and a horizontal resaw. The lumber was transported from our green chain on lumber buggies to the yard where it was piled by hand. There were four kilns here when I arrived, and two years later we put in the northwest blower system so as to speed up the drying in the kilns. Shortly after that we added four more kilns and introduced the cross circulation system for drying lumber. This eliminated the chimney that was built into the dry kiln loads to take care of the forced draft. I think that our kilns were some of the first to employ the new system of cross circulation in dry kilns.

At one time we employed about one hundred head of horses around the plant. In 1932 in the depth of the depression we bought our first lumber carrier. In the fall months we immediately ran into difficulty as our roads and our lumber yards were rough and in some places were rather soft to operate the lumber carrier over. However, we saw the advantage in rapid transportation and then the next year put a large crew on to gravel all of our alleys in the lumber yard. We then bought another carrier and a year after that disposed of all of our horses. We continued to add dry kilns so that now all of our lumber production goes through the kilns. The only thing that we do not dry is three inch plant and thicker lumber. After having dried the lumber, there was the problem of keeping it dry. We therefore had to build some rough dry shedsin the yard. We now have nineteen kilns with a capacity of eleven million feet per month, and we have dry sheds to house practically all the dry lumber that we normally carry.

When we first stored our kiln dried lumber in the yard, it all had to be handled by hand. This meant another operation and was quite costly. Some of the other mills were handling their lumber with crane sheds, but sheds of this kind, especially where you handled more than one species, ran into a lot of money. In the year 1937 we introduced the fork lift truck at our plant, and I think this was one of the first to be used in the lumber industry. At that time it had hard rubber tires. It had tremendous counter weight in the back of it, or on the steering end, and although it did a good job, was rather awkward and very rough on our oiled roads in hot weather. We operated this lift truck for one year and then changed over to pneumatic tire equipment. The manufacturers of lift trucks, of course, made that

change, and I think the suggestion came from us and other people that were trying them out.

In about the year 1926 the local power company had a power failure, and asked us whether we could supply a limited amount of power to light the Libby. We took on the task, and in the following year I suggested that we take on their load permanently. At that time we had only one small generator used principally for lighting the plant and office. The only motor we had on the place was used to drive a grinder to grind feed for the horses. Everything else was run by steam engines and transmission machinery from them. In 1927 we installed our first large generator and took over the task of supplying power to the local power company for distribution in Libby permanently. We have supplied all the power in the area ever since that time and have never had a brownout or interruption for any length of time.

In the meantime we have electrified our planing mill. The dry kilns draft is created by motors running large fans. In fact, everything around the plant is motorized with the exception of the head rigs and the edger in the sawmill. Our first generator was a six hundred kilowatt mixed pressure turbine. I was wondering at the time we installed it what we were going to do with all the power. Since then our load has increased so that we had to add additional steam generators, and we now have four of them besides having a hydro-electric plant at Troy. The increase in power consumption in the city has been approximately ten percent consistently every year, since we introduced our first generator.

The steam generators are used during the winter months when the water supply at our hydro-electric plant is low. During the months of sufficient water supply, the steam generators are shut down, and during those months we accumulate fuel. Before the introduction of Pres-to-logs, we burned some of our excess fuel in our refuse burners.

After the war was over we feared that we would again have to go to a five day week, and with the increased consumption of electrical energy in the area I feared that we would be compelled to reduce our Pres-to-log production if we did not find some other source of electrical energy. We therefore bought a hydro-electric plant at Troy, which was being operated by a mining company that had failed. The flume was in run-down condition and had to be renewed. Before we could do this, however, we had to supply the power to the city of Troy and community, and, therefore, built a power line from our powerhouse at the sawmill to Troy and supplied that area with power from here during the time the flume was being built. We now have a ten foot wood pipe, built entirely of larch, bringing the water from the dam to the forebay. This has been in operation since 1946. We also found that the one generator that we had at the hydro plant was too small to take care of the ever-increasing demand and therefore added another thirty-five hundred kilowatt generator in 1948.

The idea of starting a box factory originated at our Klickitat, Washington, operation. We purchased a plant there in 1922 and two years after that we started a box factory, supplying box shook to the fruit industry in the Yakima Valley, and also in the Hood River country. The operation was so satisfactory that we thought we would do the same at our Libby operation and use up lumber that normally does not sell well in retail yards. Since then the box factory operation has been increased, and during the war we were running three cut-off saws two shifts a day and six days a week. The box factory normally supplied employment for fifty men. During the war we made some ammunition cases, but mostly containers for food. The large packing companies took most of our output.

In the year 1946 we were informed by the REA that they would require a tremendous number of poles for the rural lines that they were building in the north central states and in the entire northwest. Having a lot of pole-sized timber in our holdings, we conceived the idea of going into this business and therefore built a pressure-treating plant, consisting of two retorts, which are eight feet in diameter and one hundred and forty-four feet long. The retort is the shell into which the poles are pushed on retort cars. The doors are sealed; the retorts are then filled with creosote and the poles are treated under pressure. I could tell you just how the operation is carried on, but I don't think that the story would be interesting. Our retorts are not any different than others, but our method of peeling poles, transporting them, yarding them and planing them is quite different from most of the pole operations. As our poles are delivered from the woods, they are dumped into a pole pond, similar to a log pond. From there they are fed into the pole peeler building by means of a bull chain, the same as logs are fed into a sawmill. The poles are kicked onto a deck similar to the log deck in the sawmill, and then they're loaded on dollies and they are put through the pole-peeling machines. The largest and best pole-peeling machine in our plant was designed by our planing mill superintendent, Albert Becker, and also was built here at our shops. I believe it is the best all-around peeling machine in the industry.

Al Becker has also designed and built all of our framing machinery. It is quite a departure from what you see at other pole plants, and I am sure it is the best in the industry today. We have a large machine shop, and we also have a special machine shop for building special machines. We have also built box factory machines and numerous other items that are used around the plant.

Many of our poles are shipped as far east as the Atlantic Coast. We have some in California and Texas, and shortly after the war we shipped a large number of poles to Alaska. I was quite interested when I took a vacation trip to Alaska this summer to see some of our poles in the power line between Anchorage and Natanuska. I recognized the poles from the bus window, but to make sure that they were ours, I inspected a pole the first time the bus stopped, and sure enough, there was our brand on the poles.

Our planing mill superintendent, Albert Becker, has also built other machines for us. Some that we are very proud of and that are used extensively are the grain door making machines that he built. I don't think there is anything exactly like it in the industry. The grain doors use up a lot of our short lumber. The cleats are accumulated from refuse in the sawmill conveyor. Normally we use lumber in grain doors that is not desirable for construction and therefore would not be purchased by retail yards. It is therefore an outlet for lumber that would be difficult to dispose of if it were not for the fact that it can go into grain doors. In a normal year, our grain door department consumes approximately five million feet of lumber.

We bought a lumber plant at Klickitat, Washington, in 1922, as we saw the end in sight of our operation at Cass Lake, Minnesota. We wound up that operation in 1923. Many of the men and officers of our company moved to Klickitat after we completed the operation at Cass Lake. We have quite a number of men of the third generation that are now working for us, both at Klickitat and also here at Libby. These are men of the third generation whose fathers had worked a life-time for us and whose grandfathers started with us in Minnesota.

In 1937 we bought a mechanical lumber stacker to stack lumber for our dry kilns. It was getting ever more difficult to find men to do the hard work of piling lumber by hand. We had a lot of difficulty with the machine in the beginning but our dry kiln superintendent, John Knudson, got ideas as to how the stacker could be rebuilt and made to function. We turned him loose with one of our men from the machine shop, and they almost completely rebuilt the machine. John Knudson also invented an automatic stickerlayer, and as far as I know this is the first machine of its kind used in the industry. It was successful right from the start. John got a patent on it and sold his rights to the Moore Dry Kiln Company, who paid him a royalty on all those they sold for some time after. Since then other automatic stickerlayers have been developed, but the idea originated with John Knudson. At one time he was given recognition for it by the National Lumber Manufacturers' Association. Since that time he has invented another automatic stickerlayer. It is simple to operate, and in my opinion, the best machine used today. The first one built is still in use in our old stacker and is functioning perfectly.