

**EARLY DAYS
IN THE FOREST SERVICE**

Volume 1



Elers Koch, along Lewis and Clark Trail in 1930s.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

NORTHERN REGION

MISSOULA, MONTANA

EARLY DAYS IN THE FOREST SERVICE

Volume 1

Compiled and Edited by
Jessie Thompson

circa 1944

**U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE**
Northern Region
Missoula, Montana

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Cover Photo: Elers Koch, Along Lewis and Clark Trail

Elers Koch, (December 12, 1880-November 21, 1954), a recognized authority on the Lewis & Clark Trail across the Bitterroot Mountain Range. Born in Bozeman, Montana, graduated from Montana State College, 1901, and received a Master's degree in Forestry from Yale, 1903. For 39 years he worked for the U.S. Forest Service. He located and planned the Forest Service's Savenac Nursery at Haugen, Montana, served as Supervisor of the Lolo and Bitterroot National Forests, and was Northern Region Director of Fire Control. In 1920 he was named chief of the Northern Region's Division of Timber Management. He and two others in the Forest Service party were the first to climb Montana's highest peak (12,842), Granite Peak. He is the author of "The High Trail," published in 1953.

Foreword by Evan W. Kelley

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Robert C. Henley
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FOREWORD

**UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NORTHERN REGION**

**FEDERAL BUILDING
MISSOULA, MONTANA**

ADDRESS REPLY TO
REGIONAL FORESTER

AND REFER TO

October 15, 1944

To the People of Region One:

A few of us were talking one day of the yarns we had heard told around campfires by the older men in the Service - some of them hair-raising, some tragic, some ludicrous, some sad. And we agreed that steps should be taken to preserve these stories of the early days. Our historical records were made up mainly of dusty odds and ends from old files - unpeopled, factual writings and statistics. We felt that these records, to be of lasting value, should be humanized, and that the stories of the oldtimers were what we needed to provide life and interest.

And so I sent out a letter to the folks who had watched over Region One through its early growing pains, and asked them to set down on paper some of their reminiscences. We have bound into this book the replies they sent in.

Reading their stories, no one can fail to be impressed by the special brand of loyalty these men gave to the Service. Their pay was poor, but in spite of that they put their best into the job, for they loved their work and had faith in it. They endured physical discomfort and hardships as a matter of course. Too often they had to face injustice and to battle discouragement, but they were never quitters.

These men and others like them laid the solid foundation of the Forest Service. The greatest honor we can pay them is to build upon that foundation a sound and enduring structure.

Sincerely,
/s/ EVAN W. KELLEY
Regional Forester

JOHN S. BAIRD
Senior Ranger
Kootenai National Forest
(Retired 1934)

W. 530 Gordon Ave.
Spokane 12, Wash.
March 13, 1944

I received an appointment as forest agent effective December 15, 1903. The appointment was from the Bureau of Forestry. Mr. Gifford Pinchot was Forester, and he instructed me to report at Cass Lake, Minnesota, for work on the Minnesota National Forest Reserve, which I did. Eugene S. Bruce, whom I had known for a long time, was in charge. He was succeeded in 1905 by G. E. Marshall, who was designated Forest Supervisor. Before going further, I must explain that the areas now known as National Forests were then known as the Western Reserves, and were under the Department of the Interior. In 1905 the Reserves were transferred to the Department of Agriculture, and the name of the Bureau of Forestry was changed to Forest Service. The Forest Reserves were designated National Forests.

The work on the Minnesota was purely timber sale work. The timber belonged to the Chippewa Indians, and was sold for their benefit by sealed bids to lumber companies, and was scaled by Department of the Interior scalers. We were required to mark and retain five percent of the timber and oversee brush disposal. It so happened that all of the crew were familiar with timber estimate work, which fact proved of great value on the job.

The Minnesota Forest was in District One at that time, and Civil Service ratings were required. I took the examination for lumberman, and passed.

In March 1909, as instructed by District Forester Greeley, I went to Ely, Minnesota, made some examinations, reported to the District Forester by letter, and as directed by him, formally put the Superior National Forest under administration. I requisitioned office supplies and equipment, also field equipment, rented office rooms and employed a small crew of forest guards. I was on the Superior four months when Scott Leavitt took over. He was succeeded in April 1910 by Joe Fitzwater.

In July 1909, I reported at the District Office, Missoula, was assigned to the Deerlodge National Forest, and organized a reconnaissance crew. The timber on the Deerlodge was being killed by smelter fumes and the D.O. cruised and sold everything affected. We made a timber estimate by forties, and made a topographic and type map. Most of the Forest was unsurveyed, and we had to make a skeleton survey in each drainage, setting up some temporary section corners. In June 1910, I was transferred to the Helena, leaving the Deerlodge crew in charge of R. P. Richard. On the Helena, I organized a crew similar to that on the Deerlodge, and worked there till July 25, on which date, in response to a wire from the District Office I reported at Missoula.

The big 1910 fire was going strong then. Both Lolo and the Coeur d'Alene had crews at intervals along the front. I was given a crew of forty men, and located near Borax on the Wallace branch of the Northern Pacific. We honestly did our best, but it was not good enough on that fire.

Returned to the Deerlodge September 1, and worked on that Forest until March 15, 1911, at which time I resigned from the Service.

I then spent almost eight years in southeast Missouri working for a lumber company, and when they finished cutting their holdings there I did not go to Louisiana with them. I wanted to get back to the Northwest. Was able to get a Forest Service appointment as lumberman, and was assigned to the Kaniksu January 1, 1919.

Resigned from the Service again in June 1920 to work for Lindsley Brothers, Spokane. Worked for them about a year and a half, was out of a job for a while. Took Forest Service examination for scaler, and was appointed to the Kootenai April 10, 1923, and worked on the Kootenai until November 1934, at which time I was retired on account of having reached the age limit.

It may seem peculiar that I resigned from the Service twice, and came back both times, but my record must have been clear, or I could not have done so.

The foregoing is a true and chronological account of my work from 1903 to 1934. Reading it over, it seems ordinary and uninteresting, but in reality, it was far from being so. You ask for some of the crowning incidents of my career. I suppose you mean the things that affected my later life, but really there were none or hardly any. I suppose the 1910 fire was the nearest. That was the first job I had ever tackled and I fell down on - and it hurt.

There was a lot of hostility on the part of residents of Cass Lake, Minnesota, to the establishing of the Minnesota National Forest. They had expected that the Chippewa Indian Reservation would be opened to settlement, and when it was made a Forest Reserve their disappointment was keen. The newspapers of the Twin Cities and of Duluth lambasted the Bureau of Forestry and its representatives pretty hard. Mr. Pinchot came in for a lot of adverse criticism; so did Mr. Bruce and Ed Marshall; but they got tired of fighting us after a while. I have been told that Cass Lake now regards the Forest as its greatest asset and that it is going to be the finest summer resort in that region. It should be, for the Minnesota (or Chippewa, as they call it now) is the most beautiful thing in America - anyway, I think so.

I understand that the Superior moved its headquarters from Ely to Duluth. I heard they were putting on a lot of style, using planes to make field trips, and that they have fine surfaced roads to go where we traveled by canoe and portage. I wonder what they would say if someone told them that the first Acting Supervisor on the Forest was an ugly, cranky little Scotsman by the name of Baird. Better not tell them.

In 1908 when I was on the Minnesota the Supervisor held a Civil Service examination for the position of ranger. I assisted him in giving the field test on the second day. Among the candidates that fell to me was a young man who gave his name as Howard Flint. I did not see him again until June 1919, when I was transferred to the Kaniksu as lumberman. He had been

Supervisor of the Kaniksu for a year, and he knew me at once. We had a long talk, and he gave me all the news from the old Minnesota.

In 1909 and 1910 I had a nice lot of boys and young men in my reconnaissance crew, some of whom later became well known. One was L. C. Stockdale, who later became Chief of Operation in District One. I believe he is now in Washington, D. C. Another was R. T. Ferguson, now Supervisor of the Beartooth. Another was C. N. Whitney, now in Products in your office. Another was C. Lee Billings, now general manager of Potlatch Forest, Inc.

The differences between conditions in the Forest Service of 1905 - 10 and those of the present day are too numerous to mention. There were no roads to speak of, not every ranger district had a station, and what stations there were, were log cabins. Just look at them now, though. The pay of a Forest ranger averaged \$900 a year, and no allotment was made for expenses. Besides, he was required to furnish his own saddle horse. The astonishing thing about it was the fact that in spite of all this the Service got such a high type of men. The rangers' wives may be given a lot of credit for this. They kept the stations spotless, and took good care of their men. I met a lot of rangers and their wives in my work, and I know. My hat is off to the old ranger and his wife. I truly believe that they laid the foundation of the Service.

I could go on for a long time relating incidents that were very interesting to me, but they might not interest others. You know how it is with us old fellows - once we start to gab we never know when to quit.

If I have touched on any points that interest you, and you want more information, please let me know.

/s/ JOHN S. BAIRD
Lumberman

O. C. BRADEEN
Procurement Officer
P&S, Regional Office
(Transferred to Treasury Dept, 1943)

2005 5th Avenue
Seattle 1, Washington
March 11, 1944

Major Evan W. Kelley
Forest Service
Federal Building
Missoula, Montana

Dear Major Kelley:

Upon thinking back to the days you are interested in, I recalled that I was literally "kicked" into the Forest Service — no college degree, no logging experience — just a kick by a mule. The story goes this way. In 1912 I met at Polson, Montana by accident a school friend of my father's who was the Assistant State Forester of Montana. They had logged off to some extent such river drainages in Maine as the head-waters of the Penobscot, the Mattawamkeg, and other rivers in the vicinity.

My Dad went to Boston to get rich and the Assistant State Forester followed the logging through Wisconsin and Minnesota, and wound up in the woods around Kalispell. He wanted a compassman to help him on a cruising job of some state timber and asked me to take it. Finally when the job was finished we went to Helena to see what was next and he surprised me with the question, "How, would you like to go to Africa for three years?" I didn't care about going to Africa so he took me up to the Supervisor of the Helena and said, "Jasper, give this boy a job." I went to work with Derrick's June 11 crew the following day. In moving our camp we used a team of mules and a buckboard and one of the mules caught his hoof between two rocks and bent his shoe out so that each time he stepped he would gouge the shoe into his opposite leg and consequently the shoe had to come off. We had no tools to use so it was decided that if we wished to go on, the shoe had to come off. After the usual round table discussion, I proposed that I get hold of the shoe and pull it off by main strength, etc., which resulted in a kicking exposition but I wound up on the ground with the shoe in my hand and the mule's foot out of the shoe.

Finally the June 11 work was completed for the time being and the crew dispersed except I was given a job as acting Ranger which eventually led into a permanent job, if 32 years of service can be classed as permanent. I have always maintained that I was actually kicked into the Forest Service.

My first headquarters was an old guard cabin which hadn't been used since the preceding fall, and in the meantime, a family of skunks had made a home under the floor. We got along fine together for a few days, but finally the skunks couldn't stand it any longer and moved out. I felt

real lonesome for some time until a pack rat showed up and filled in the niche in my existence formerly held by the skunk family.

My first assignment to a fire was on the St. Joe during the I.W.W. troubles. We were having an awful record of men quitting because they were "sick." Consequently, by reason of this fact the firefighters would demand travel time in and out amounting to 16 hours travel time and a round-trip ticket. Something had to be done to stop this faking.

The Adams portable telephones were first used about this time and, as you recall, if you put your two fingers on the posts and pressed the buzzer you would get quite a shock. So it was finally decided to use this "means" of determining whether a man was faking "sick" or not. We would explain to the "sick" I.W.W. that we had an instrument which would determine whether or not he was faking sick, and if we thought we could win in a scrap, we would open the "sick" man's shirt front and put the two posts on his bare skin and press the button. The dumb ones would accept the "result" and the wise ones saw the joke and after a cup of coffee and a piece of pie at the cook tent would go back to work.

I suppose you will have many fire stories sent in a result of your letter, but I believe I had a unique experience on the Coolwater Creek (Selway) fire in 1919. I was told to take my crew of about 75 men from the mouth of Deadman Creek to the top of Coolwater and establish a camp in a small park. We arrived at about 6 PM and were just about ready to have supper when we could hear the roar of the fire coming up the hill from the Lochsa. I quickly found out that I was going to have my first experience of being burned out and started to prepare for it. The men were recruited from Miles City and their experience in the woods was nil and early in the game they began to get panicky. There was no place to go to get away from the onrushing flames that would be any safer than taking a stand in this park, so we decided to meet it there. The kitchen was under a wet-down fly and we put all the food, etc. under the fly, filled with water all the pails not full of supper, and stationed two men to handle this job, telling them to run out from under the fly with a cup full of water to throw on the sparks as they started to burn the canvas.

As the fire hit the camp the sparks began to fall on the canvas and the two men would run out, throw the water on the spark hole and run back under cover. Finally they ran out of water, then they used the coffee, then the soup, then the canned peas, and finally wound up using stewed prunes, but they were able to maintain themselves and the uncooked grub until the fire passed over. We started up supper again and in a short time everyone was eating a hearty meal.

I suppose you are wondering what happened to the other 73 men while the place was burning out. What to do with the men was a problem. The summer before a movie outfit had set up a group of log cabins in this park in connection with the filming of the picture "Told in the Hills." As the fire approached the park we drove all the men into the cabins with a guard at each door and, of course, when the fire hit the park with the accompanying roar these cabins started to burn. We held the men in burning cabins until the fire burned over and then let them out onto a burned-over spot and watched the cabins go up in flames and disappear from the picture. Supper was served a little late that night and not many of us could sleep because the smoke had made our eyes water so much that our tear ducts were empty and it was difficult and painful to close our eyelids.

All were glad to see the sunrise the next morning with everyone accounted for.

In reading what I've written it seems pretty "tame." If you have anything specific you think I could cover, of interest, I'd be glad to give it a try.

Sincerely

/s/ O. C. Bradeen

HARTLEY A. CALKINS
In Charge of Road Work
Engineering, R.O.
(Retired 1943)

Missoula, Montana
March 1944

Dear Major Kelley:

I am glad to comply with the request in your letter of December 29, 1943. I have been somewhat laggard in doing so, but the time has been utilized in thinking about how I might relate my experience that it would best serve the purpose intended. Frankly, I doubt that more than a very little if any of what I have to relate will serve your purpose; however, that is for you to judge.

I think I would first like to give my impression of the Service as gained in those first years.

Before coming to the Forest Service I had worked at various jobs in many places, from Minnesota to Oklahoma. This included common labor for small firms and individuals, engineering work for five different railroads, and with the Bitterroot Valley Irrigation Company. In all this time I had always been treated fairly and with consideration; however, the moment I joined the Service I sensed a different attitude. The men I came in contact with were more friendly and seemed to take personal interest in me as an individual. That was something new.

I was not educated or trained as a forester; to me this was only a job. For this reason I have felt that my observations might have special significance.

I entered the Service January 1, 1914. In the late fall of 1914 I was sent to Priest River. While going over I was riding in a double Pullman seat and in the opposite seat I had placed my brief case. It was one of the old canvas cases with "Forest Service" stamped across the front. A man came along, saw this and asked me if I was with the Service. I told him I was. He sat down with me, introduced himself and we visited. During the time he sat there he told me all about the Forest Service, what it stood for and its objectives, all about what they were striving to accomplish. The man was Colonel Greeley, and the incident made a lasting impression on me. I could relate other incidents involving Mr. Silcox, Frank Bonner and others along the same line, all of which convinced me that I was identified with an organization whose leaders were interested in something besides feathering their own nests.

By 1915 the Engineering Division had somewhat expanded and consisted of a number engaged in entry surveys, maps and surveys. Road development was just starting. The organization at the time was, as I recall it, about as follows:

Frank Bonner, Chief of Geography
F. W. Kramer (deceased), District Engineer, Water Power
George Lutz, in charge of Entry Surveys
Ray Maurer (deceased), Entry Surveys

Elmer Johnson. Entry Surveys (now in R-6)
Fred Thieme, Entry Surveys
C. W. Cheatham (deceased), Road Engineer
Robert Gumaer (deceased), Road Engineer
A. V. (Shorty) Williamson, Road Engineer (now with PRA at Denver)
H. A. Calkins, Road Engineer

Maps & Surveys & Drafting

J. B. Yule
Frank J. Cool
Chas. Farmer (now in private business)
Jean Ewen (PRA, Portland)
George Stadler
Joshua Cope
Joe Halm
C. H. Fisher (deceased)
William Nagel
John Taylor
K. D. Swan
Clarence Beaman

Don Sawhill and W. P. Stephenson were assistants on Entry Surveys.

The female contingent consisted of Miss Lambreat and Mrs. Chas. Vealey.

The District Office heads were as follows:

F. A. Silcox, District Forester
R. H. Rutledge, Assistant District Forester, Lands
C. H. Adams, Assistant District Forester, Grazing
D. T. Mason, Assistant District Forester, Silviculture
D. F. McGowan, Assistant to the Solicitor
J. A. Urbanowicz, District Fiscal Agent
John R. Preston, Assistant District Forester, Operation
Oscar Wold, Auditor

I came to Montana in 1907, arriving in Missoula on the 30th of May. I came here to accept a position with the Milwaukee and remained in that position until construction was completed, living in Missoula during the 1908 flood and the 1910 fire.

Mrs. Calkins and I were married in Missoula on July 9, 1908. Our wedding trip was a ride in a hack from the South Side around by the county bridge west of town to the Methodist parsonage where we were married and then back to the South Side. The driver sat on the high seat and was decked out in Prince Albert coat, silk hat and white gloves. Some style: The county bridge was the only means of crossing the river after the flood.

There are a great many incidents I might relate of Missoula of that date, but can hardly take the time. Sufficient to say that it was a wide-open town. Besides the construction of the Milwaukee, the N. P. was double tracking between Missoula and Butte, also making many line changes. H. M. Tremaine was a resident engineer for them at the time. Hugh and I worked together for the Chicago Great Western in Iowa in 1903-04.

After the Milwaukee was completed I was in Bonner for a year on the construction of the Blackfoot branch. During that time I became acquainted with John R. Toole, Kenneth Ross and most of the men who are still there.

At one time I did some special work for Mr. Ross. When that work at Bonner was completed in 1911, I went to Hamilton with the Bitterroot Valley Irrigation Company, where I remained until I entered the Service.

Upon entering the Service on January 1, 1911, I worked until spring as a draftsman. About the first of June I got my first field assignment, to run a traverse along the Gravelly Range for about 25 miles ending near Black Butte. It is a beautiful country, and I recall that the grass that spring would brush the stirrups on a saddle horse. Flowers in great numbers and abundance and in a variety of colors grew there; to look across one of those meadows through the transit telescope gave it the appearance of almost solid bouquet of flowers. Snow banks still lay on north slopes under the brows of hills and in the heads of gulches. We generally set camp near one of these snow banks to obtain water and have a cold place to keep our butter - the only perishable item in our supplies. I might add that these snow banks were equally impressive as breeding grounds for a particularly vicious and persistent species of mosquito; also, to further assist me in occupying my time I had an ulcerated tooth the entire time I was on the job. The day we moved out, as though it had accomplished its mission, it quit aching.

The job was a transit survey to establish a base line for future range surveys. Stone monuments were established at half-mile intervals. On this work I had two young fellows as assistants and a camp-tender and cook, the latter part of the title being decidedly misrepresentative. I had always suspected that the man who occupied this position had had large experience as a sheep herder and that his culinary ability was limited to sour-dough biscuits and mutton stew.

Our camp supplies and equipment were moved by wagon drawn by a team of horses. No roads were in existence in the area at that time other than rough wagon trails following the line of least resistance.

The survey was completed the last of June and we started moving out to Sheridan. On the way out I saw more sheep than I had ever seen before or since at any one time. The bands were just moving in on the range, and in one day it was estimated that we could see 40,000 head at one time. The Madison Forest that year had issued permits for 125,000 head of sheep. Mr. Wilson was Supervisor.

Following the completion of this job, I returned to Missoula and was assigned as a resident engineer on the Bitterroot-Big Hole road then under construction. I moved to the project on the 5th of July and was there continuously until the 25th of October.

Transportation those days was, of course, much different than now. Very few automobiles were in use. I recall that in going to the project I went by train from Missoula to Darby, and by horse stage from Darby to Sula. From there on it was every man for himself. I eventually landed at the Odell ranch on Camp Creek, which for a short time was my headquarters. There I met for the first time Ranger Than Wilkerson. Than was doing inspection work on the job. At that time the work had been under way for some time and was about fifty percent completed between the county road on Camp Creek and the divide.

This project, extending from the old road on Camp Creek near the Gallogly ranch over the divide and down Trail Creek to the Big Hole River near the historic Big Hole battlefield, a distance of 25.78 miles, was surveyed in 1913 by Frank Bonner. The type of survey employed was compass and Abney. A separate compass and Abney reading was recorded for each "shot" of 100 feet or less. This type of survey naturally resulted in considerable irregularity in both grade and alignment that was unnecessary, but in those days very little was known about the science of road location. Construction methods and lack of funds and equipment made economy in location and standard an essential requirement. At that time a common measuring stick in road costs by many counties was \$1,000 per mile.

The standards of construction were: maximum grade six percent, width about 10 feet; no minimum curvature was set, and I suppose some curves were as low as 20-foot radius. Culverts and bridges were constructed of local material, mostly lodgepole.

The type of material encountered over the entire route was fortunately decomposed granite, which made an excellent road bed. This road has been used a great deal and has undoubtedly paid for itself many times over.

For many years it had been the practice of stock ranchers and farmers in the Big Hole Basin to go to the Bitterroot in the fall with wagon outfits and lay in their winter supply of fruits and vegetables. This was no mean undertaking. There was an old road from Camp Creek and down Trail Creek, if it could be dignified by that name, and it was a good days work just to ride this road in a wagon. The road left Camp Creek at Gallogly Springs and climbed the ridge to the divide for two and three-quarters miles with an average grade of 17 percent. I recall that there was quite an area at the top of the hill that had been cleared off, while at the bottom long, large windrows of trees lined the road on either side. Travellers coming down the grade would cut down a tree, tie it on the back of the wagon and use it as a brake down the hill. The old road down Trail Creek was a nightmare, wandering around among the trees, up and down, over boulders and through chuck holes. In the summer there may have been a few short stretches of comparatively smooth road, but these were few and far between.

The job was handled by contract except for 1.7 miles on the east end at the battlefield which was built by force account, with Than Wilkerson in charge and K. D. Swan as timekeeper. The work on this section was financed by every conceivable means short of highway robbery.

The contract for the Big Hole road was let to the Clifton & Applegate Company on a lump-sum basis, and they nearly went broke. The work was all done by hand labor and teams. The

equipment consisted of gang plows, slip and Fresno scrapers, horse-drawn graders and small hand tools. All rock, and there was quite a lot of it, was drilled by hand, double jack.

Clifton spent the entire season on the job as manager. With him were Allen, Howard and Brice Toole. Allen was assistant manager, Brice was a timekeeper and Howard worked as a laborer and he certainly held up his end of the load. Early in July Clifton had Ole Rue come in as superintendent. Ole was one of the most competent construction bosses I have ever seen. It wasn't any time until he had everything organized and going full-blast. Ole and I got along fine. We had a few arguments, but we both understood it was part of the game. Ole was not above taking advantage of any break he could get, and would cut the specifications if he thought he could get away with it, which was fair enough for it was up to the engineer to watch those things. I will relate a few incidents to illustrate what I mean. Occasionally on the route bog holes would be encountered. In each case the specifications required that all boggy material be removed and a back-fill of mineral soil be placed. One day Ole says to me, "Calkins, you know that bog hole at station so-and-so." I said, "Yes." He said, "I don't see any need of removing that material. It's not very deep and a pretty good fill goes there." I said, "Well, let's go and take a look at it." So, we went up there and Ole got a crow bar from a crew working close by; put the small end down, shoved it in about two feet, looked up and said, "See?" I had my suspicions so walked over, put my hand on the crow bar and shoved it nearly out of sight. I looked up and said, "See?" Ole grinned and walked off.

The specifications did not require that a railing be placed on bridges of 10-foot span or less. The bridge foreman, John Lee, went ahead and put them on. One day Clifton discovered this and nearly threw a fit. He jumped all over the bridge foreman, then jumped on me. "Why didn't you tell us?" he asked. I replied, "I am not running your job." Ole grinned.

In the case of some of the larger bridges I woke up to the fact that the ground underneath was covered with bark chips and shavings, and as it was a dry season it made a serious fire hazard and the specifications made no provision for cleaning them up. I spoke to Ole about it and told him, "Someone will drop a match or a cigarette there some day and we will not only lose the bridge but have a forest fire on our hands." He said he would put a crew on it and I told him I would make it up to him some other way. He did, but when the job was about half done Clifton came along and threw another fit. "Who told you to do that?" he asked. One of the men told him Ole did. "It don't make any difference," Clifton said, "we don't have to do that; you go back on the grade." They went; he was the big boss. I came along later and noticed the work unfinished, so when I saw Ole I asked him why he pulled the crew off. He said, "I didn't, but I will find out damn soon who did." This time Ole didn't grin, but I did. He was a hotheaded Swede and I knew there would be some fireworks. Ole hunted up the men and gave them a good dressing down. He told them, "I'm the boss on this job and if you want to work here you twill do as I say." They went back and finished the job.

Ole wasn't satisfied to let it go at that but hunted up Clifton and laid the law down to him. "There ain't room for more than one boss on this job," he told Clifton, "so if you want to run things I'll go over the hill." Well, Clifton had quite a time calming Ole down, but finally did it, but it was easy to see it still rankled Ole. A few nights later we were all in the office at headquarters camp and Clifton was talking to Allen Toole about some finishing work that had to be done up by the

divide. He said, "We will have to put a small crew up there with a camp outfit." Then, turning to Ole, said, "Ole, who can we put in charge of that crew?" Ole looked up and growled, "You better go yourself, you're so damned anxious to boss somebody." Well, everybody laughed and Ole grinned rather sheepishly. He had gotten it out of his system. It is probable that in a short time the incident was forgotten by everyone except me. Ole was just a rough-neck construction boss, but he knew the game and I learned much from him, not the least of which was that there isn't room for more than one boss on any job.

Compared to present-day methods and equipment, those in use at that time seem primitive to say the least, and the standard of survey and construction on this and other jobs was on a comparable basis! The result was considerable irregularity in grade and alignment.

Along Trail Creek for the entire distance the survey held slavishly to the contour just above the level of the adjoining flats and meadows, which meant there were countless opportunities to "straighten out," cutting from point to point with light fills or turnpike sections, with the result of shortening the distance, improving alignment and eliminating in most cases all clearing. However, with a lump-sum contract it was next to impossible to make such changes. I did it in a number of minor cases, nearly always staking both the original line and the revision and telling the contractor to take his pick. Without exception they chose the revision. At Long Prairie I could have made a similar but longer change that would have eliminated all clearing, shortened the distance one-half mile and given a tangent location, but I was afraid of complications with the contract so decided not to attempt it. To this day I am not sure I made the correct decision.

When I was assigned to the job I was supposed to handle the engineering and Than Wilkerson the inspection, but as it turned out to be a rather bad fire season Than had to leave, which threw the whole load on me. Then to further complicate matters, Bonner decided he wanted profile levels run from the divide to the battlefield about seventeen miles. I asked him, since it was a lump-sum contract, what good that would do, but he thought it would help in checking finishing, so I said no more and managed to sandwich this job in some way and by working nights to plat it up. Later Frank looked over the profile one night about eleven o'clock and finally remarked, "I guess we better go to bed." That was the last of the profile and I never felt it was my place to reopen the subject.

That summer I was busier than a one-armed paper hanger with the hives. I had to have a helper, so I picked a tall Swede from the crew. He was a well-educated and apparently came from a good family. There was quite a number of Swedes on the crew, many of them just over and unable to talk English. They were smart though. Evidence of this lay in the fact that when I would come around they would bow and tip their hats. I wondered at the time if I shouldn't seriously consider moving to Sweden where I would be more truly appreciated.

The man I chose to help me had a difficult name so I re-named him King Oscar. King had a weakness for gooseberries and one day when he had an opportunity he stole a can from the kitchen and hid them in his shirt. He then went out in the brush and proceeded to consume the entire can and considering the results I have never been certain that he did not eat the container as well. Anyway the next day we had a sick Swede on our hands. You could hear him groan for a quarter of a mile. Anyway, he lost his appetite for gooseberries. King Oscar served me well and

faithfully for the entire season and we became quite good friends in spite of the fact that he later turned out to be something of a crook.

The Big Hole road was completed that fall for a total cost of \$51,440 for the 25.78 miles which includes the battlefield section 1.7 miles constructed by force account; of that amount \$18,955 was cooperative funds. I don't know how the contractor came out except that I know he didn't get rich at it. It was always my understanding they pulled out about even.

Transportation of supplies and equipment on this job was no small undertaking as it all had to be brought in by wagon with four to six horses over poor and difficult roads. I used to enjoy watching the "skimmers" handling those teams. They certainly were artists at it, something almost impossible to find these days.

I think the honor of driving the first car over this road goes to Dr. Hayward of Hamilton. He and Al Rissman, a druggist of Darby, who was very active in promoting the road, and Rissman's boy came chugging through our camp on May Creek one night about ten o'clock. I thought I was seeing things for a while. They didn't get very far before they ran "straddle" of a stump and had to walk back to the camp. The next day they went on to Wisdom, then made the return trip.

We worked hard on this job, but in spite of that and the mosquitoes and horse flies I would like to live those days over again. I would like to crawl into my bunk of fir boughs and have the coyotes sing me to sleep as they did nearly every night there. I would like again to meet the friendly people I knew there - John Clifton, Ole Rue, the Toole boys, Frank Bonner, Than Wilkerson, the Odells where we had so many satisfying and enjoyable meals, Al Rissman and Art Keyes and his wife, who nursed me through a sick spell at the Battlefield Ranger Station, and last but not least, King Oscar. All are scattered far and wide, some have passed on, and nothing is left to me but memories.

The last time I drove over this road I was shocked to see comparatively large trees growing on the slopes of the cuts and fills. That was several years ago - I must be growing old.

The next year, signs, painted by Frank Cool, were put up on the road. The wording of two of these I think is worthy of recording here - one, on the sharp curves, "Go Slow and Signal," and the other, on turnouts, "Stop and Look Ahead." As to how well the injunction of these signs has been heeded by travelers, I leave up to the imagination of the reader.

A few years later when visiting the job with Than Wilkerson, studying maintenance problems, Than remarked, "We ought to have some kind of an open-top culvert to keep the water from following the wheel tracks." That was revolutionary and was a shock to my sensibilities, but it was several years before the idea came into general use, an opportunity I let pass. They say opportunity is like a bald headed man with whiskers, you can catch him coming but not going.

It was in 1921 that we undertook quite a large improvement plan for this project. This consisted mainly of replacing log culverts and small bridges with metal pipe. For seven years most of the original structures were in very bad shape.

In the fall of 1914 Bonner sent me to Priest River to do some survey work on a section of the road on the east side between the Experiment Station and the Halfway House, Prather's ranch. I was told to get in touch with Mr. Beardmore in Priest River who would take me out there. I landed in Priest River in the late afternoon and asked a man where I could find Mr. Beardmore. He jerked his thumb over his shoulder and said, "Over there." I looked and saw a large ramshackle building, the St. Elmo Hotel. I then asked him where the best hotel was and he said, "That's a good one; come on, I work for Beardmore, I'll take you over." I realized I was stuck and went, but to this day I can remember the musty odor of many cookings of corned beef and cabbage from the kitchen and of drying socks around the big base burner in the lobby.

The next morning Beardmore and I started out with a team and buggy in what for that country of historic rains must have been one worthy of recording. It took us most of the day to reach the Halfway House, where I met Mrs. Prather and was installed in a room in a large cabin. In the front room I noticed an old man sitting in a rocker. He was Tom Benton, Mrs. Prather's father. I walked around the room and noticed a picture on the wall; it was a picture of Andersonville Prison. I had seen it before, as my father had one. I turned to the old man and asked him if he had been there. He grunted. I then told him my father had been there for eleven months. He said, "What State?" "Illinois," I replied. "What branch?" he asked. "Cavalry," I told him. Then he asked, "What regiment," and I could see his interest increasing. I told him, and he said, "The hell you say; what was his name?" I told him, and he jumped out of the chair like he had been jabbed with a pin. "My God, are you Fred Calkins boy?" he yelled. I said I was. After he got over his excitement we had quite a visit. Dad was living then, and I wrote him. He told me Tom Benton had been the only member of his squad he had been unable to get any trace of after they left prison. They had gone through the war and prison together. I mention this here since it seemed to me a strange coincidence, and as further proof that this is a small world.

In the spring of 1915 my first assignment was the construction of the section of road near the Halfway House. Of course those days the Forest Service had no equipment for construction. Slim Borden had been a contractor in a small way and had a small outfit, about thirty head of horses, plows, fresnoes, scrapers, etc. He had worked on the Big Hole road the season before on a subcontract, so we hired him and rented his outfit for the Priest River job.

As soon as the outfit arrived in Priest River, Fred Forsythe, who was then deputy Supervisor, took me out to the job so that I could select a camp site and get it ready. As all the tools were on the cars, Fred took me to the Experiment Station to borrow some tools to set up camp. Brewster was in charge at the time but was absent. Larson let us have what we needed. Later when I returned the tools the axes were sent back with a formal note from Brewster saying they were not the axes that had been loaned me; that their axes were special "Sager chemical chopping axes." I asked Johnny Lee if he had seen anything like that. He said he hadn't. Johnny was a Swede, and called them "Sager comical shopping axes." We finally picked out six of the best axes on the job, sharpened them well and returned them to Mr. Brewster, with the information that that was the best we could do for him. I don't think Brewster ever forgave me for that.

Those days we had no practical means of paying the men on the job, and as that would be necessary in handling a lot of transient labor, arrangements were made with the Kendall Mercantile Company in Priest River to furnish us with all supplies at ten percent off. For this

they agreed to pay the men on presentation of an authentic statement. We had no form for this purpose, so Kendall and I marked one out. I made these in camp on an old Oliver typewriter, six at a time. They were on a half-letter-size sheet on yellow paper and were a combination of check and receipt. I also had an old check protector that I used. It was intended that these would be cashed in Priest River by Kendall, but it wasn't long before the canceled "checks" started coming back from other points nearly all of which were cleared through the Old National Bank in Spokane. I was flabbergasted, but in all of this, involving hundreds of dollars, we never had the least trouble and our accounts checked in to a penny, which I thought was some sort of record.

The winter before, the Forest had cleared the right-of-way and attempted to shoot the stumps. On the large stumps they didn't use enough powder and only split the stumps into several snags that could only be disposed of by pulling and it took some pull. To do this I bought 125 feet of 3/4-inch steel cable and two large double blocks.

A stump rancher in the locality had a family, a cabin, and a team of horses. The horses were perfectly matched blacks weighing 1700 each and perfectly trained to pull. I was never sure which rated the highest in McCloud's affections, his family or his horses. I never saw his family, but know he had reason to be proud of his horses. We put them on the cable and when they started to pull you could count on one of three things happening, either the stump would come out, or the clamps on the cable would slip, or the rigging would break. It was a treat to watch them work.

I was glad when this job was finished for we had worked in rain and mud most of the time.

For the balance of the season I was on location surveys. The first job was to make a location survey from Prichard, Idaho, upriver to Big Creek. My instructions were to locate so that the line could be used for either a road or a logging railroad. The present road follows substantially the location made at that time. The railroad that came later bridged the river twice to take advantage of flats and avoid sidehill grading. The lumberjack hates a pick and shovel worse than a cowboy hates digging post holes. If he has something to build and can possibly build it of logs he will do so, and in many instances makes the mistake I have seen happen so often in our own work of mistaking cheapness for economy.

Nothing much worthy of note happened on this job. I had a good crew and the work went smoothly. Banner made an inspection trip, and with him came Dan Corner, who was the fire organization. While Banner and I went over the location, Dan borrowed one of my axemen and went back in the hills and built a test fire "just to see if the boys were on their toes." They were; and if Bill Newberry could have caught the " _____ " that set that fire he would have made him hard to "ketch," or words to that effect. Bill was ranger at Prichard and he had a voice like a fog horn. I have been on the trail on the opposite side of the river from the station and have heard Bill talk on the phone and got every word he spoke. I said to him one day, "Bill, when you want to talk to Coeur d'Alene, why don't you just stick your head out the window and talk; why bother with the phone?" Bill was pretty goodnatured, as most big fellows are.

The natives had a unique and interesting method of freighting up the river. They would hitch a horse to a flat-bottomed scow loaded with freight and walk it right up the river, then the horse would be brought back on the trail and the boat floated down the river.

The type of survey made was a standard transit location and the crew would consist of six to eight men, an instrument man, rodman, chainman, stake artist and two to four axemen as conditions required.

The methods employed were as follows: I would work ahead with the axeman, establishing and clearing the line and setting the flags for the transit crew to follow. The transit crew followed, staking the line, chaining the distance, etc. After this was done I would divide the crew to run profile levels, cross-sections and topography, take section-line ties, dig test pits, make notes on soil classification, clearing, and cutouts and bridges, etc. The methods and organization just described apply equally, with minor variation, to all subsequent location work and will not be repeated.

In all my locations it seemed I had almost phenomenal luck in missing obstacles on the ground with my lines. On this job, in producing a tangent across the Big Creek flat, I saw a large double cedar snag looming up ahead in the brush. I thought, well, here is where we offset. The snags were each about four feet in diameter with only about a foot of space between, but the line went right through the center of this opening. It was something the boys couldn't understand and of course I made no attempt to enlighten them but would say nothing and try to look mysterious, but I wasn't fooling the instrument man.

Max Mullen was a young man from Wallace that I had hired as an axeman. His family had previously lived in Missoula and I was well acquainted with them. Max was a big husky lad and a good worker but about as graceful as a cub bear. One day while we were running the line across the Big Creek flat we came to a place where a tall slender lodgepole had arched over with the top right on the line. I told them to "get it" and paid no more attention for a time. When I looked around there was Max up on the arch of that tree, twelve feet above the ground, chopping. I yelled to him to get down but just then the tree broke with a bang like a cannon and with apparently about the same propulsion. The axe went one way (fortunately) and Max the other, but the god that guides the destinies of fools and drunks must have been looking after Max for he suffered nothing worse than a few scratches.

Our next job was to be the location through the Fourth of July Canyon. We moved by train from Prichard to Cataldo, where I made arrangements for transportation by team and wagon to the canyon.

Our outfit, consisting of rolls of canvas, of tents and bed rolls, personal baggage, surveying equipment, etc., was strung out on the depot platform while the boys were lounging around in the warm sunshine smoking and enjoying their brief vacation. I noticed an old gentleman at the other end of the platform trying without marked success to strike up a conversation with the boys. He was a benevolent looking old fellow with long snowy-white hair and beard. Cataldo, then, was a quiet sleepy little village. There was no paved highway with the rush of cars, trucks and busses. It was easy to see the old man was fairly consumed with curiosity. He walked slowly up the

platform to where I and Paul Bebe were sitting. The old man stopped a few feet from us, and with his hands clasped behind his back and his head bowed in thought finally turned to Paul and said, "Do you know what the elevation is here?" Paul replied that he did not. The old man thought for a little longer, then remarked. "I don't jest recollect, but I'm pretty sure there was a seven in it accordin' to the theological survey."

Our survey was to start at the canyon schoolhouse at the point where the Rose Lake road turned off and ended at Bennetts Bay, a distance of twenty-two miles.

Our first camp was at the logging camp of the Rose Lumber Company in the canyon about two miles above where the survey was to start. It was there I first met Bill Keeler logging superintendent. I also met Walter Rosenberry when I went to Rose Lake to make arrangements for accommodations at the camp.

For many years to follow I was to come in direct contact with Bill Keeler, and in all our dealings I found him fair and cooperative. He was a fine man.

In addition to our camp with the Rose Lake we camped at the Thompson ranch just over the ridge to the west of Cedar Creek, at the VanDusen place near Wolf Lodge and the Molstead ranch on the west shore of Blue Creek Bay.

On this work our crew was joined by J. J. McCreedy, representative of the State of Idaho. He worked with us on the entire job and held up his end the same as any member of the crew.

Mr. Molstead was a Norwegian and had sailed many a boat on the fjords of Norway, and love of the water was in his blood. He owned row boats, two or three small motor boats and one fairly large steamboat, probably fifty feet long. I made arrangements with him to furnish us with boat transportation. They would take us out in the morning and I would tell them where to pick us up in the evening. The section of survey we worked from Molstead's ranch extended from a point well above the Wolf Lodge bridge to Bennetts Bay. The work took between two and three weeks. In addition he took the entire crew to Coeur d'Alene one Sunday on the steamer so they could take in a picture show, and when I settled up with him my bill for boat service was \$14.

I had two of his sons working for me as axeman, and I never had more efficient or hardworking boys than they were. One of them worked so hard one day he fainted.

All of these things contributed to the low cost of the survey, which was about \$50 per mile. All of my surveys of this type, ranged from \$50 to \$70 per mile, but those days we hit the ball and I didn't worry about being back in camp when the whistle blew or get courtmartialed.

Mr. Wilbur lived in a large fine house on the shore of the lake in a cove just east of Bennetts Bay. I was carrying my line rather high (the present road is on that location), and as his land extended back quite a way from the lake it meant that I had to cut his land in two. Wilbur didn't like this because he had a couple of milch cows that pastured on this land. He wanted me to put the line down on the lakeshore in front of the house. I couldn't use a low line through there due to excessive cost. I explained this to Mr. Wilbur, and after I had convinced him I couldn't do it he

was satisfied, but I told him we would give him a stock pass under the road in a gulch back of his place. This was more than satisfactory. A few years later when I happened in Coeur d'Alene one Saturday, Wilbur was in town and looked me up to tell me that they had made a fill across the gulch. He was quite downhearted. I told him not to worry; that it was an agreement made in good faith and I was sure it could be adjusted. When I got to Missoula I took the matter up with Mr. Keene of the BPR and he said they would fix it. They opened up the fill and put in the stock pass and Mr. Wilbur was sitting on top of the world.

But to get back to the survey. After I had made the above arrangement with Mr. Wilbur he invited the entire crew to a chicken dinner. After living on sandwiches for lunch every day a chicken dinner was a real occasion and everyone made the most of it. The net result being, we didn't get much done that afternoon. After work Wilbur loaded us all on his yacht and took us back to Molsteads'. There are some fine people in the world if you give them half a chance.

At the time this survey was made there was very little travel by automobile, and cross-country travel was limited to an occasional stouthearted individual in search of a record of some sort. The standards adopted for the location were equal to those in use in Idaho and ahead of anything in use in Montana at the time, yet the road had hardly been built before it was evident that the standard was much too low. No one had any means of estimating the great increase in volume and character of travel that was to come in a few short years.

The matter of finances was another difficult problem. The first section of this road, the Burns Summit section, was constructed by the Forest Service and was financed by the State of Idaho, Forest Service funds, county funds and local subscriptions, and toward the end of the season the job was operating on a shoe string, sort of a "now, if we can scrape up a few more dollars we can finish this cut" basis.

The winter following this survey I made the design and estimate, and as I recall the estimate was between \$6,000 and \$7,000 per mile. This was unheard of, it was heresy or something; who ever heard of spending that much on a road; etc. Booth, Idaho State highway engineer, was in Missoula when I finished the estimate, and, although they didn't say so, I know darned well they thought (and hoped) I had made a mistake.

The road had been designed for a width of 16 feet, so they decided to try a 14-foot width and I redesigned the job and the result was a reduction of 12 percent in the original estimate, and so they decided to go on the 16-foot basis.

I attended a luncheon at the old Banquet restaurant in Wallace where several speeches were made and where a lot of enthusiasm was ginned up to help finance the work. Bonner had picked me up off of the job to make this trip and the car I rode in had a driver with one eye. He took us through over the narrow, crooked dirt road to Wallace at the phenomenal speed of about thirty m.p.h. After we arrived in Wallace and I had time to press my hair back in place and catch my breath I remarked to one of the other men, "I'd like to see what that fellow could do if he had two good eyes."

Altogether, my experience on this job was interesting and satisfying, and new friendships gained. I have lived to see the road built on my location and later revised on a more desirable route until only one section of the original location now remains, from the Wolf Lodge bridge to Bennetts Bay, and plans for changing this are in the making. It will be pulled down to a water grade with easy curves and long tangents and the cost will probably be in excess of \$100,000 per mile, a far cry from the original estimate, but it is well justified by traffic requirements.

Except for the proposed bridge across the mouth of Blue Creek Bay, I can honestly say that not a foot of the revisions was accomplished or planned but what I examined, but for obvious reasons they were beyond our reach at the time. Coventry, who was county surveyor at the time, and I together examined the route down Cedar Creek from Burns summit, and years ago I told Andrews of the BPR that that should be one of the first changes made, and it was. I derive no small amount of comfort from these thoughts.

After completing the survey of the Fourth of July Canyon I was sent to Grangeville to retrace a previous survey from the Cove Placers down into the S.F. Canyon to the point where the old trail crossed the river. A large boulder in the middle of the stream served as a pier for the bridge.

As we were traveling on the train up the Culdesac Canyon, Bill Wilson, my instrument man, disclosed that he had been resident engineer on the construction of that section through the canyon. He got quite a kick out of seeing the old "battle ground."

The road from Cove Placer had been surveyed some time before and a section on the upper end had been constructed by George Ring, who was Supervisor then. I think this was done in 1913 or 1911.

The purpose of the resurvey was to obtain a more reliable estimate of the cost. Later the plan was abandoned in favor of the present route into the South Fork, and I suppose now it would be difficult to even find a sign of the original construction where George Ring used to make stump speeches to his crew.

Thus ended the field season of 1915, and the winter was spent in designing the summer's work.

In 1916 the first job was the retracement of the Wolf Lodge survey. On this work my crew consisted of J. J. Crell, instrument man. Crell was a high-school teacher from over in Washington some place and was pretty much of a tenderfoot in the woods, but a conscientious and capable worker. Hugh Kent, rodman, Bill Richardson, chairman, both from the University at Missoula; Clarence Piedmore and George Ames, axeman; John Howard, cook and ex-preacher, and I might add that he possessed none of the characteristics of his earlier calling unless it might be a serious mien and a rumbling baritone voice. I think he was the sourest cook, I ever had to contend with. Also with the crew, since we were to complete the design and plans in the field, I had Jean Ewen as draftsman and J. H. Miller as designer.

This was one of the toughest jobs I ever had, due to steep slopes, brush and timber, snow and rain, long hard hikes, and working all the time with grades up to ten and twelve percent. I was soft and about twenty pounds overweight when I went in May 10, and when I came out on July

15 I walked from the camp on Sands Creek over the old Skookum trail (seventeen-percent grade) to the Searchlight mine with a transit on my shoulder without stopping.

The project started on Wolf Lodge Creek at the mouth of Marie Creek and ended at the mouth of Sands Creek on the Little North Fork a short distance above the Honeysuckle Ranger Station. The distance was about 12.5 miles with a total rise over Wolf Lodge Summit of about 2,000 feet.

We camped first at the Pietromuex ranch on Marie Creek, then at the Searchlight mine, and last at Jerry Alcorn's logging camp on Sands Creek.

There were two or three incidents that occurred on the job to break the monotony for the boys. There was the time Jean Ewen rigged up a cigar can with two holes in it for eyes and a candle with an ingenious shutter worked with a pendulum that when swinging would make the eyes blink. When Crell saw this about ten o'clock one night he nearly tore the tent down getting in to get my rifle. He shot at it three times and the third time hit and put the light out. "I got him!" he shouted and the boys started heaving rocks in the brush to give the impression that it was wounded and headed down the creek. It being dark he couldn't see what they were doing. They ran Crell nearly a mile down the creek before they gave it up. When they came back Crell began to grow suspicious so he took a lantern and went out in the brush and hunted until he found the can. He brought it in, held it up and said, "Well, anyway, I hit it every time." He was too excited to notice only one hole went clear through the can, but, he took it in good spirit and was one of the gang from then on.

One frosty morning we went out to work, and Ames was looking at a large clump of willow brush. He said, "I suppose that has to come out?" I told him it did. He walked up to it and gave it a halfhearted blow with his axe and one of those thin wiry switches cut him across the face. It's bad enough to have that happen any time, but it's almost unbearable when your face is cold. Well, George just exploded like a box of T.N.T. For a few minutes the "blue" air was full of flying brush and dust. When the cyclone passed and George stood there red in the face and panting, I said, "George, bring me one of those switches." He looked at me suspiciously and asked, "What do you want with that?" I said, "I think I will carry one with me." George grinned. He got the idea, but I didn't get the switch.

Decker Brothers, well-known packers at the time, had a pack base established at the Searchlight mine. They were to pack for the Rose Lake Lumber Company. They moved our camp to the Sands Creek camp and I saw those mules with 200-pound packs climb up over a log obstruction like a bunch of lumberjacks. The packer put his horse up the steep slope around the logs but evidently the mules thought that was too much trouble.

As we moved off this job construction was starting on the lower end of Marie Creek with Bob Gumaer in charge. At the same time construction had started on the Burns Summit section of the Fourth of July Canyon with Chester Cheatham in charge. Chester had the longer and more important job, and Bob was jealous. They used to go to Spokane to buy their supplies, and Bob not to be outdone, would order on an even more lavish scale than Chester, with the result that he had a large amount of supplies in storage on the job, enough to feed Coxey's array for a year. Without exaggeration, we fed prunes to our road crews for the next ten years that came from the

Wolf Lodge job. Bob ran out of funds before he got the road to the Big Spring. Poor Bob, I thought a lot of him, but he had a jealous and sensitive disposition and a bad temper, and yet could be so friendly and fine. He had a lot of native ability and had practically raised himself by his bootstraps, but was unable to overcome his handicaps. Bob and Chester have both passed on, but the recollection of my association with those boys is one of my treasured memories, for I knew what was under the surface.

Our next job was the location of a section of the Yellowstone Trail immediately west of Alberton, Montana.

The old road was on the north side of the river above the Milwaukee tracks and passed over what is known as "Nigger Hill." The road was crooked and steep and one of the most difficult sections on the route. The road crossed the river on a low bridge at approximately the site of the present crossing.

Since the bridge must be replaced, the State had made surveys and found a location just west of Alberton where the river was narrow with a natural pier in the center. The State estimated they could build a bridge at that site for \$10,000 less than it would cost to replace the existing bridge; therefore, that amount had to be considered in our selection of a route.

I camped first at an abandoned ranch on the north side on Nigger Gulch. My crew was small since I required no regular axeman. Hugh Kent was instrument man, Bill Richardson rodman, H. E. Webb, chainman, and Jean Ewen on cross sections and topography, and J. Yelland, cook. He was the neatest and cleanest cook I ever had and the only mistake he ever made was one day he used salt instead of sugar in making cream pies. That was a mess.

I found that a route above the Milwaukee tracks was out of the question so made a survey along the approximate route of the present highway between the tracks and the river, but the estimate for this was way out of reach. I then moved my camp across the river. To do this, it was necessary to go to Lathrop and move by train to Plateau, a flag station on the N. P.

When we went through Alberton I bought a pocket full of nickel cigars, but I had no idea at the time what a worth-while investment that would prove to be. When we got to Lathrop and unloaded our junk it made quite an imposing pile on the platform and I guess it didn't make much of a hit with the agent for all I could get out of him was an occasional grunt.

Pretty soon a freight train came through and he had to come out of his cave. I got him cornered and said, "Have a cigar." He brightened right up and said, "Just as soon as this train pulls out I'll fix you up." He was as good as his word. He looked over the stuff and said, "You know, I think we can check practically all of this as baggage," which he proceeded to do. It took almost as long to load and unload the stuff as it did to make the run from Lathrop to Plateau.

The conductor and baggageman nearly threw a fit when they saw the layout, but a couple more cigars changed frowns and grumblings to smiles, jokes and willing cooperation, and as the train pulled out of Plateau they waved and shouted good luck. The boys never ceased to marvel at what the judicious use of a few nickel cigars could accomplish.

The location on that side proved much easier and cheaper due partly to the saving on the bridge, although it included one section of heavy work west of Plateau where it was necessary to use several hundred feet of dry rubble masonry wall between the railroad and the river and included two grade crossings on the railroad. The wall gave considerable trouble later in two or three places.

Mr. Purcell was then bridge engineer for the BPR at Portland. He came over and viewed the location and approved the plans for the wall. I felt much better. The estimate for this project was about \$10,000 per mile. We were beginning to get into big money.

The next project was the location of the Gibbons Pass route. Both the Big Hole and the Bitterroot were interested in this connection with Salmon City. The route selected was from Gibbons Pass north along the divide to a connection with the Bitterroot-Big Hole road a short distance east of the divide. Such a route served both communities equally well, but a few people on the Bitterroot side wanted the road to go down Camp Creek through Gallogly Hot Springs. This would have been fine for the Bitterroot but no good for the Big Hole.

Ravalli County planned to cooperate with us in the construction of the road, but the commissioners could not agree on the route. Taylor, Edwards and Bob Harper were the commissioners. Taylor was in favor of the route selected; Edwards wanted the route down Camp Creek, said he could build a road down there for a thousand dollars a mile; and Harper was from Missouri and had to be shown; so a trip was arranged and the commissioners, Nick Blindauer, county surveyor, George Lautz and myself went.

I knew the commissioners were not used to hiking and would soon tire, so I took them over the selected route first. This was easy traveling and they enjoyed it, but by the time they reached Gibbons Pass they were getting tired. They questioned me some about the other route and Taylor and Harper said they were going down the trail. Edwards hated to admit he was licked, but was too tired to care much. He finally told Nick to go with me and he would be guided by what Nick reported. Nick and I started out. It was steep sidehill, rocky and brushy, and after we had gone about a mile Nick said, "How much is like this?" I told him it was all like that or worse until we hit the creek bottom. He said, "Oh hell, let's go down to the trail." And that was the end of a perfect day.

At the end of this job the crew was disbanded and Kent and Richardson returned to school. On October 4 I left for Grangeville to make a reconnaissance survey up the South Fork of the Clearwater to Elk City. First, however, I organized a small crew and made a compass and Abney survey from Mount Idaho down into the canyon to the present bridge site, then up river to the trail to Castle Creek. The present road was built on this survey.

After completing this work I returned to Grangeville to arrange for the reconnaissance to Elk City. On this trip Tom Crossley, who was the ranger at Castle Creek, was to accompany me. Also we had a short string of pack mules and James Gribble as packer. We left Castle Creek on the morning of October 25 and reached Elk City on October 30, averaging about six miles per day. The total distance was slightly under thirty-seven miles.

Anyone who has seen the S.F. Canyon need not be told that it is for the greater part a very rugged canyon. At that time a trail of sorts followed the river. It had been built many years before by miners, probably during the gold boom. It was a poor excuse of a trail and some apprehension was felt for the pack string, but Jimmy took them through without a scratch.

One fortunate circumstance was a big help on this work. Several years before the N. P. Railway had made a survey up the river and I had a copy of their map giving the station number at each creek crossing. It was therefore only necessary to pace for short distances in between breaking down the work into typical sections.

I enjoyed every minute of this trip. We had good weather up to the last night, when it rained, then it turned into snow, but that night we reached a cabin. It was a good cabin, but securely padlocked, and there we were on the outside looking in. Tom had a screwdriver, I had an idea; we took the lock off and took possession. Let 'er rain and snow; we were fixed. The day before Tom had killed a deer with his Luger and that night we had venison stew, stewed peaches, bannock and coffee. Believe me, there is no finer combination in the world. Tom was an artist at making bannock and I was no less proficient at disposing of them. Our plan of work was that in the morning Tom would describe the country ahead and I would estimate about how far we could go. He would then tell Jim where to camp. Tom and I would take our lunches and start out. Jimmy would pack and clean up camp and move to the next site and when we came in would have camp all set and supper on the fire. I shall always have a warm place in my heart for Tom Crossley for his unfailing cheerfulness, friendliness and helpfulness. Tom will do to take along.

We reached Elk City on the evening of October 30. The next day at noon I said good-bye to the boys and started out on the stage. This was a four-horse set-up and I rode up on the seat with the driver and we buckled ourselves in with heavy straps, a wise precaution I was to learn. That night I stayed at the old road house at Newsome and left early in the morning with a different driver. The road from Newsome climbed for nine miles and all that time we traveled in a dense fog.

There were no other passengers and I visited with the driver, talking of various things. He didn't know who I was and apparently he took me for a tenderfoot, since many came in looking over mining property. To make conversation, I said, "I suppose there are lots of bear around here." "Oh, quite a few," he replied. "Any grizzlies?" I asked. "Some," he said. "They are pretty tough customers, aren't they?" "Well, they are supposed to be," he said, "but I know different." "How come?" I tossed in, to find out where this was leading. "Well, one Sunday," he offered in explanation, "I was out for a stroll in the woods and I came to a small park and on the other side of the park was a big grizzly!" (In all bear stories the bear is big.) "When he heard me he sat up and looked at me. At first I wanted to run, but as he didn't act like he was going to do anything I waited, then I got to wondering if they were as bad as I had heard. I started walking toward him slowly and finally I was almost close enough to touch him, and still he did nothing. Finally I took off my hat and, leaning toward him, I gave him a stiff clout on the snout. He turned and ran away."

"Gosh!" was all I could think of to say; and I suppose he thought, "The poor boob believed it."

Finally we came out on top and into bright sunshine. There at our feet lay a great ocean of clouds stretching as far as the eye could reach, with here and there a mountain top piercing through like islands in a great sea. It was a sight that beggars description. The driver had stopped the horses and when we started I hated to leave, and I am sure he felt the same way.

It was during the winter of 1916 that the BPR made arrangements to establish a branch office in Missoula, and it was after much headscratching and conversation that the four horsemen, Cheatham, Williamson, Gumaer and myself decided to transfer over, which we did effective January 1, 1917. All the time though I felt like a deserter. The BPR was a fine organization with fine men, but something was and still is lacking - that fine idealism of the Forest Service - and so on February 16, 1918, I came back. Eventually Cheatham went to Alaska, Williamson to Denver, and Gumaer left to go into business for himself.

E. S. Wheeler was put in charge of the local office, which was under J. A. Whittaker, district engineer, at Denver.

Wheeler was a fine, upstanding man, with a keen sense of humor and a wonderful command of the English language. I have seen him curl his upper lip and deal out sarcasm in ten-dollar words for fifteen minutes without once repeating himself, and it was this accomplishment that got him in Dutch with the Montana Highway Commission. The commission was infant in years but not in size. If I remember correctly, there were twenty-five members.

Wheeler's fourteen years' experience had been in some of our island possessions (I've forgotten which) where a magnanimous government was building concrete paved highways, and that was all he could talk about. Montana's need then was to improve the roads and surface them with gravel. It was some time before Wheeler began to get a true perspective of the situation in Montana, the third largest State in the Union, with the costliest construction, a total population that would make only a fair-sized city in most States, and no source of revenue. Wheeler, I think, had been born thirty years too soon.

During the year 1917 while I was with the BPR I made location surveys for the road on the west side of Seeley Lake, the North Fork of the Flathead, and reconnaissance surveys for the Skalkaho and the Clark Fork. All of this took from May 19 to November 22. It was a fairly busy and active season.

The Seeley Lake job was a compass survey and I hired Hugh Kent as assistant. Wheeler went along for a "vacation," and Ezra Shaw, ranger at Seeley Lake, and Ed and Jay Perro worked on the survey. We stayed at the ranger station and the evenings were devoted mainly to telling windies. It was a short horse, easily curried.

On June 24, Hugh Kent, Grant Higgins, who was now a member of our crew and I went up to the North Fork to the Moran Ranger Station to start that survey. We traveled from Columbia Falls by team. The road was in too bad shape for a car or we would have gone by "jitney," a somewhat doubtful method of locomotion just coming into vogue.

At Moran Ranger Station we met George Stepler, ranger. Mrs. Stepler agreed to board us and George had a large tent up in the yard he said we could sleep in. There was nothing in the tent so we all made our beds down in a row along one side.

The mosquitoes were terrific. As near as I could tell they worked two shifts. The early shift would start about 4:00 a.m. and work till noon, and the late shift would work from noon till 10:00 or 11:00 p.m. I finally sent to Columbia Falls for a bolt of mosquito netting. We fixed this in a canopy over the heads of our beds.

Grant Higgins was, and I suppose still is, a quiet, reserved and undemonstrative individual, and you never knew what he was thinking about except you could be sure he was thinking. When we went through Kalispell, Grant, without telling anyone, purchased a bunch of fire crackers and put them in his pack sack. On the morning of July 4, about 1:00 a.m., he very quietly slipped out of bed, got the fire crackers and laid them next to the canvas on the outside about a foot from my head and lit them. I tore the mosquito canopy down, tore my bed apart, and nearly pulled the tent down getting out. It was one time I saw, or rather heard, Grant laugh real hard. I know his sense of humor took nourishment from this incident for a long time. At that, it must have been kind of funny.

The second camp was at Bill Adair's store. I will mention one thing about the store that impressed me. The building was of logs, one room probably about 20 x 40. The ceiling was high and the ceiling joists were of hewn timbers. The work was so well done that unless one looked closely it would be assumed the timbers came from a sawmill. There were some real broadaxe artists in the locality.

The third camp was at Dad Cooper's ranch on the Meadow Creek bench. The fourth near the Ford Ranger Station, and the fifth and last camp at Ralph Thayer's homestead on Trail Creek.

This was a compass and Abney survey and extended from Coal Creek to the International Boundary, thirty miles.

The only feature of the job that I feel is worth mention was the right-of-way situation. Practically the entire route lay across privately owned land. I knew that any attempt to placate one owner would lead to complications with the others, and decided that the best plan would be to go ahead as through there were no private ownerships. This proved to be a fortunate decision.

A. G. (Andy) Vance worked for me all during the survey. Andy had a ranch in the river bottom not far from Adair's store. Andy did all my packing and furnished saddle stock, and also kept me posted on the grapevine rumors. Andy was one of the finest old fellows I have ever known, a real gentleman. He was a quiet, unassuming and friendly man, but had had quite a colorful career. In his younger days he had hunted buffalo; later he sold elk meat in Livingston before there were any game laws. For several years he had been a guide for big-game hunters through the Rocky Mountains from Colorado to Canada. During this time he had Count Zeppelin on one trip, and at other times a famous lord and wife from England. And had also been in the Alaska gold rush.

Dad Cooper had a hard reputation. He was reported to have vinegar in his veins rather than blood, and the grapevine said, "Wait till he tries to run his survey across Dad Cooper's place and see what happens."

One day Andy and I were riding up the trail to look over some country ahead and we met Dad. Andy introduced us and I told Dad I would like to camp at his place and board the crew with them if it could be arranged. Well, this rather surprised him, but it was so arranged.

While we were there nothing was said by either of us about the road until one noon I brought the survey across his line in sight of the house. After dinner he asked me if I was going to put the survey across his land that afternoon and I told him I was. "Do you mind if I come out and see where you put it?" he asked. I told him no, that I would be glad to have him. I told him where I planned to put the line, but I said, "I, can swing it over that way more; if it makes any difference to you, state your preference and I will follow it." He thought it over for a while and indicated his choice. It really made no difference but he was satisfied.

Nothing more was said about the road until the morning we were to move. After breakfast when the others had left the table, Dad turned to me and said, "You heard down there," and he jerked his thumb over his shoulder toward the river, "You heard down there I was a pretty tough customer to get along with, didn't you?" I said, "Well, maybe I heard something of the sort, but I hear lots of rumors and I don't pay attention to them." The old man looked at me with kind of a sly smile and a twinkle in his eye and said, "We fooled 'em, didn't we?"

It was while we were camped at Thayer's homestead that Wheeler took a notion to visit us, and he brought Mrs. Wheeler. They came in the hard way, with a team and driver from Belton, coming up on the park side. When I heard they were coming I sent Andy out to meet them. He had to take a roundabout course to find a suitable ford, then bring them across country to camp. There was no road, but they finally made it. I think it was after the trip that Wheeler began to have some conception of the size of the State and to understand the difficulties that confronted the road program.

The Skalkaho reconnaissance was on the southern route, coming out by way of Medicine Lake and the upper West Fork of Rock Creek. About all there is to be said of this job is that it was darned hard work. Long hikes, hard climbs, and no trails. The country was steep and rugged and long hikes were necessary due to the difficulty of placing camps.

The survey was with Abney and Army Sketch board. The distance was chained roughly, but with that type of survey quite a distance could be covered in a day.

The same type of survey was employed on the Clark Fork, Plains to the State line, but this was a "luxury" job. We actually rode to and from work in a car and lived in town.

The fact that the cars were Ford jitneys of all descriptions, the roads rough, narrow and crooked, with steep hills, detracted nothing from our enjoyment of a unique situation. It was nothing short of a vacation.

The work started on October 29 and was completed on November 20. We had covered 71.62 miles. The cost of the survey was \$8.00 per mile.

Beginning with 1918, the year I transferred back to the Forest Service I was no longer assigned to seasonal jobs of road surveys but was assigned to minor roads survey, construction and maintenance. Now, all large jobs, major roads costing over \$5,000 per mile, would be handled by the BPR.

In 1918 I spent practically the entire field season on the construction of the Wolf Lodge, completing the project from the end of earlier construction near the Big Spring to the "Little River" at the mouth of Sands Creek.

The work was handled by contract under a cooperative agreement between the Forest Service and the Rose Lake Lumber Company, each providing 50 percent of the cost. The contract was awarded to G. A. Carlson of Spokane on a cost plus 10 percent basis, and the construction was nearly all accomplished through station gangs. Those gangs were generally made up of five to seven men. They would contract to build a certain amount of road at so much per station; out of this they would pay board, rent tools, buy powder, etc. On this project they made from \$4.00 to \$8.00 per man per day clear of expenses. I have known station gangs to make \$24.00 per day, but that was unusual. I have carefully checked them repeatedly and found them averaging 20 cubic yards per day per man for eight hours. At the same time 5 to 7 cubic yards per man was the best that could be obtained by day labor. They would not use a long-handled shovel. They called it the "lazy man's shovel." The entire job was built with pick and shovel.

While I was engineer on the job and representing the Forest Service, before I got through I was representing the Rose Lake Company and practically running the job for Carlson. He was away quite a lot. I learned a lot from Carlson on dealing, with station gangs. Carlson was a fine man, scrupulously honest and upright in his dealing with these men. He understood them and sympathized with them. He had come up the hard way, too. He was a pirate when it came to bidding on work; when he wanted a job he wasn't afraid to bid for it.

Carlson built a good many of our major roads, such as the Lochsa, Cash Creek to the Bungalow, North Fork of the Flathead, and many others.

Carlson was a large man, about six-foot and weighing around 235 pounds, with a prodigious appetite. One evening when he, George Lutz and I returned to camp after a strenuous day walking over the survey, we sat down to a belated meal. Among other things was a platter of fried eggs. George took one, I took two, and Carlson upended the platter and slid the balance of the eggs onto his plate. He handed the platter back to the cook and said, "Cook some eks."

Carlson's wrath was just as startling as his appetite when he had occasion to let go of it, and I was always careful not to get it pointed in my direction.

In 1919, two projects stand out in the season's accomplishments — the Addie-Copeland on the old Pend Oreille, Joe Fitzwater Supervisor; and the Elkhorn on the Beaverhead. John Somers Supervisor.

On the Addie-Copeland I made the survey, let small contracts to local crews for right-of-way clearing, and learned to smoke Old Missouri Corn Cake, vulgarly referred to as bridge sweepings. The grading was done by day labor, and S. H. Ketcham was put in charge. Ketcham was another Bitterrooter. He, Cheatham, Williamson and myself had worked there for the "Big Ditch." That was where we became acquainted. H. S. Lord was another engineer in the Bitterroot, and at one time in Hamilton he formed an engineering partnership with Cheatham and Ketcham. The name of the firm was naturally Lord, Ketcham and Cheatham.

I made the survey and plans for the Elkhorn, and as the job was estimated to cost about \$10,000 for approximately two miles of work it was decided to let a contract. The work was formally advertised in the papers and I was on hand in Dillon at the appointed time to open bids. Somers told me no bids had been submitted but that several wanted the job but wanted to go over the work with the engineer before submitting their bids, so we organized a party and two carloads of us went out. I was in a new Marmon that belonged to a cattleman by the name of Trask who was giving financial backing to one of the bidders. He said, "By God I've always owned the best team in the country and now I'll own the best car." Later I've listened to some wild tales about his experiences with that car, but fortunately the day we went out he had a young fellow for driver. Trask had a naturally reckless disposition and on top of this was pretty well "corned up" most of the time, which put a fine, keen edge to his natural recklessness. Finally one day later he turned the car over in the ditch, and just after he and his family had crawled out of the wreck it caught on fire and burned.

When we started back to Dillon after looking over the job, Trask said to the driver, "Don't let the damned Dutchman pass you." When we came to the little country store Polaris we stopped for something and the "damned Dutchman" passed us. Later we caught up on a flat rocky bench. The road was just a single pair of tracks, but that didn't stop us from passing the other car. Just before this I looked at the speedometer and we were going 60 m.p.h. Now, those days 30 or 40 m.p.h. was considered fast. I had never ridden that fast before, and at that time I didn't honestly think I ever would again, for I knew the other driver, but he let us past, much to my everlasting relief. Later I thanked him for it and he said "If Mrs. Somers hadn't been in the car I wouldn't have." I said, "Thank heaven for Mrs. Somers."

After we returned to Dillon the bids were submitted, opened, and the contract let. The contractors were fine men, honest and conscientious, and determined to do a good job regardless of cost. We got along fine. They did a good job and made a little money. Ketcham was resident engineer.

In 1920 I made a trip on the Madison that I think was one of the most enjoyable and satisfactory trips I ever made. The reason for this was that it was nice country to travel in and I had Walt Derrick for a companion. Walt hired a car and driver in Sheridan for the trip. I don't remember the driver's name except that we called him Red. Why, I don't know, unless maybe it was because he had red hair. The car was a Nash.

We first went up the Ruby River to examine the route of the proposed Centennial Divide road. I used speedometer readings for distance and took notes necessary for an estimate. There was an old wagon road of sorts as far as Three Forks. It was a fair country road to the Ruby Ranger Station, but beyond that it was hardly more than a scar on the landscape. I held my breath, in

several places, and I like to think it helped. From Three Forks on we took to the sage brush. Once in crossing a ravine Red had to hit it pretty hard to avoid getting stuck and as a result broke the casting that held the steering post to the engine block. With this loose, the whole outfit headed off toward "Jones's" out of control. He got it stopped and tied it back in place with a piece of clothes line, and we limped on. That night we camped on the divide where there was a line fence and Red got enough wire to replace the rope and make it more secure. We made the rest of the trip with the steering apparatus wired, and Red remarked with pardonable pride, "The darned thing is safer now than it was before." The next night we stayed at Henry's Lake, the following night at West Yellowstone, and the next day back to Sheridan. This trip also included reconnaissance surveys of the Targhee Pass and the Madison River Forest highways.

In June 1920, I was in Red Lodge with Supervisor Ferguson to meet with the county commissioners concerning a cooperative agreement. In the evening "Fergy" suggested we go up to the court house where a group of ranchers and local people were having a meeting trying to organize an irrigation district and apparently were not having much success.

Dr. Siegfriedt, who was prominent in local affairs and did much to promote the Red Lodge-Cooke City highway, was there listening to the talks and discussion. Jealousy and neighborhood disputes were making it difficult to get any place. Finally the chairman turned to the doctor and asked him if he wouldn't say something. Doc stood up and very deliberately looked over the audience and gave forth with this pungent and eminently appropriate remark, "People who live in narrow canyons get narrow-minded." Whenever I have found myself or noticed anyone else becoming too hide-bound on any subject I think of that remark by Dr. Siegfriedt.

In the fall we built the road to the Monture Ranger Station. It was on this job I first got acquainted with Bill White, one of the best construction foremen I have ever known. He was a native of the upper, Blackfoot and an expert woodsman, but had had considerable experience working for contractors.

Bill was the type of fellow that, if you explained what you wanted done, could do it without a lot of stakes and plans to guide him. It was in 1924 while we were building the bridge across the Moyie River at Eileen that Bill had his leg crushed in an accident and spent the rest of the winter in a hospital. From that time on he went down hill and later began drinking, and finally ended up a suicide in Priest River. The accident had left him a little crippled and I think that was what was responsible. Bill was a fine fellow and did yeoman service for the Forest Service on road contraction and on fires, and will always have a prominent place in my memories.

In 1921 we opened up the river bottom road from Honeysuckle to Leiberg. There was an old tote road there that forded the river. We improved this and built bridges to eliminate the fords. The bridges were flat stringer type on rock-filled crib piers and were built at an average cost of about \$8 per linear foot. George Duncan was in charge. The same year we built the Seeley Lake road and the North Fork Flathead. This latter was a major project and Carlson had the contract. Berney Kitt was resident engineer.

In 1922 the road from Cash Creek to the Bungalow was completed. This was a major job and Carlson was the contractor. This was an 8-foot road and cost \$17,000 per mile. No comment offered.

During this season I made two location surveys, one of the Centennial Divide and the other for a logging railroad from Hayden Lake over Burns Summit. Before I went in on this job I was talking one day with Koch and I asked him what the country was like. "Well," he said, "on the Hayden Lake slopes it's yellow pine type and open country." It was straight up. We fought Ceanothus brush from three to ten feet high every foot of the way, most of it on 60 to 70-percent slopes. I thought I would lose most of the crew before we got through with it. We tried everything from a jack knife to a mowing machine trying to find some instrument that would successfully combat that stuff. In more recent years on a trip to the coast I saw a fine residence on the heights above Oakland where the grounds were being landscaped with the darned stuff. I told my wife, "There's a fellow whose education is a long way from being complete."

Neff, Bradner and Tom Crossley were on the party most of the time, also R. H. Coulson, who at that time was on the Coeur d'Alene. L. H. Nelson, an engineer from the Regional Office, was instrument man and, while an experienced engineer, had apparently had no experience in the mountains. He got a scare one night that took all the vinegar out of him.

Our camp was near Burns Summit in a patch of heavy timber where the sun never hit. It was a dismal and gloomy spot. One night I woke up and heard slow, stealthy steps. They kept coming closer and closer until it was right by the head of my bed not more than a foot from my head. It sniffed at the edge of the canvas, and the hair on my head began to raise. Then it whined and I knew what it was. Two hound dogs from down by the lake had been in camp for a while, then left, and I knew it was one of them come back.

Nelson slept in a small tent facing ours and only about four feet away, and he slept with the flaps of the tent open. We all slept on the ground. As I lay there thinking of the dog I thought, "Wouldn't it be funny if that dog would walk in and lick Nelson in the face?" Then I went back to sleep. Some time later Neff and I (we were sleeping together) were brought sitting up in bed wide awake by the most ungodly screech that I believe ever issued from human lips. Neff stuck his head out, and there was Nelson standing in front of the tent looking up the hill. "Big bear! Big bear!" was all he could say, and we never could make him believe otherwise, and when a short time later he got a chance to go to Missoula he lost no time in taking advantage of it. If anyone ever sees a lonely goat wandering the hills back of Hayden Lake browsing on Ceanothus brush, treat it kindly, for it belongs to Nelson.

In September, while on a trip to the Beartooth I made a reconnaissance survey for a road from Sage Creek over the ridge down Crooked Creek. To make the trip we needed saddle stock, but as none were handy Supervisor Ferguson made arrangements with a rancher on Sage Creek to take us over by team. This old fellow was quite a character and I enjoyed his conversation. One remark of his I have never forgotten. We had stopped for lunch well down on Crooked Creek and from where we sat we could see beyond the Forest boundary and out into the flat Wyoming country. I turned to the old man and asked, "Is there any well-defined road from the Forest boundary on out to the country or State system?" He replied, "No, they ain't; you know them

people down there are so dammed contrary and ornery they won't foller each other around long enough to make a set of tracks."

Glen Smith says that was not far from an accurate description of the situation in that area.

Nineteen twenty-three was my jinx year. I went east on a trip and the first thing that happened I got caught in a cloudburst near Silver north of Helena. Nothing happened, but it was mildly exciting for a while with water racing across the road in the low places almost deep enough to drown the engine and I could see the roadbed melting out from under the Great Northern tracks just above me.

The second incident occurred on the Absaroka. Supervisor Shaw and I were walking up the trail in Yankee Jim Canyon when a rattlesnake reached out and tapped me on the boot; fortunately he didn't get through.

Then came the third strike and out. It was in the Bridger Mountains north of Bozeman on July 14. I was driving in to look over the Flathead Pass Forest highway route. Ranger Fred Ainger was with me. At one point the road gave way and down we went. Fred got dumped out first turn, but "Lizzie" and I went to the bottom of the hill. It has always been a debatable point as to whether the car or I got the worst pounding. I will say that after a spare wheel had been put on the car and it had been pulled back to the road by a team it came in under its own power, and that was more than I could do. But my troubles were not over. After I had spent a month in the hospital at Bozeman and quite some time in the office in Missoula, I attempted in the late fall to drive to Wallace where I was to meet Supervisor McHarg. It was on this trip that my jinx made another try for me. He didn't get me, but the experience left me weak and shaky.

It was late when I left Missoula and dark by the time I reached Saltese. The road over Lookout Pass was under construction but not open yet for travel, so I stayed on the old road up Randolph Creek. This road had grades up to 17 percent. The first steep pitch I hit I knew the car wasn't working right. I tried three times and gave up. I didn't like the idea of backing down that pitch in the dark. I got turned around finally and thought I would try the new grade. Fortunately, I was able to get through. Going down the other side I was very careful not to let the car get to going too fast. When about a mile down from the summit something broke underneath when I pushed down on the brake and the car started ahead with a rush. I reached for the emergency with one hand and swung the car into the bank with the other and was able to get it stopped and walked the rest of the way to Mullan, but thankful to be able to walk. The next morning the garage man brought the car in. He told me that either the bolts had not all been put in on the universal junction or they had not been tightened, for when it gave way he said only one bolt was holding it and that broke.

I have never been superstitious but by this time I was beginning to wonder if I hadn't better carry a rabbit's foot and be a little careful. From 1924 to 1928 the work was more or less routine and nothing of special significance occurred. During this period the Centennial Divide road was built. Location surveys were made for logging railroads on the Coeur d'Alene in Big Creek and Eagle Creek. Location survey of the Dickensheet project was made in 1925 and lower Rock Creek in 1926. The Rock Creek road was built in the winter of 1926. Bill Neiland was foreman

and K. Marlin assistant foreman. This was our first winter job. For equipment we had a "30" cat and grader and a Fordson compressor that in a pinch would run two hammers. We had some thirty-below weather that winter but the work went well and when we finished in the spring had saved \$2,000 on the estimate. This also was some sort of a record.

Stockdale and I used to have a lot of friendly but warm discussions about my tendencies toward the use of tangents in my locations, and this matter was revived when he, Norcross, Thieme and myself went over the Rock Creek job that spring. Stock said to me when we were riding over one of the long tangents, "Hartley, wouldn't it have been better to stay on the old road rather than use these long tangents?" I asked him why and he said, "To take advantage of the clearing and any work that had been done on the old road." I told him then that the old road was nothing but a rut road and the clearing amounted to very little; also that in the new location, which was 12.5 miles long, at no place was it more than 50 yards from the old road, yet due to the better alignment the new location was just one half mile shorter. This meant, as I pointed out, one-half mile less to build, one-half mile less to maintain and one-half mile less to drive, and a saving in driving time and costs. Stock admitted we had something there.

While I admit my education is far from complete, I have learned that a straight line is the shortest distance between two points. Good workmanship in location and construction should not be regarded as inimical to economy if intelligently employed.

In the fall of 1927 we made the location for the Fishhook logging railroad. This was a tough job. Above the forks it was steep mountain work and below the forks we were working in ice-cold water most of the time.

Our first camp was at the mouth of Outlaw Creek. Then we moved to the forks and the lower end was worked from the Avery Ranger Station.

On the crew were Jim Yule, Phil Neff, Clyde Webb, Ray Staniford, Lynn Thompson, E. W. Renshaw and C. J. Kumler. Neff was there only a short time, but Webb stayed for the entire job and swung a lusty axe clearing line. Clyde never had much to say but always appeared to be doing a lot of thinking and that had me worried. I wondered what in the hell he was thinking.

There is a lot I could say about this job but I must have some regard for the paper shortage.

In 1929 I attended a road conference at Santa Barbara, California. This was to be a study of equipment at a road camp back in the mountains but when we got to Santa Barbara it was raining and we couldn't get out so we held meetings in town until it stopped raining.

This was my first trip to California and I debated some time whether or not I should take an overcoat, but finally decided to risk the wrath of the native sons and take it. It was fortunate I did so, for as it was I nearly froze to death. The incident may be taken as a tribute to the advertising power of California, but it was a near tragedy for me.

I have always been grateful that I was given the opportunity to attend this meeting. It gave me a closer insight into the problems of the other Regions and broadened my viewpoint. I also learned

much about equipment. It was there I saw my first bulldozer. I had a chance to see it in action and study its performance. When I wrote my report on the conference I suggested that we get one or two of these machines and try them out, but it was some time before this was done. I thought at the time how much one of those machines would have saved us on the Rock Creek job where we had a crew of twenty-five men working with pick and shovel.

Those attending the meeting as I remember were Norcross and Dort from Washington, Ress Phillips from Denver, Jim Mullen from Region Three, Blakeslee from Region Four, K. P. Cecil and Ted Flynn from Region Six,. and of course Chester Jorden of Region Five.

We drove over roads built by Chester and, according to the gang, there wasn't a thing about those roads that was right. Chester was so busy explaining, and rather heatedly, too, at times, why he didn't put the road there instead of where he did or why he didn't use lighter curves and grades, etc., that it was some time before he discovered that he was being ribbed.

Out in camp it was pretty chilly in the morning. Of course, that was duck soup for us and we started making caustic remarks about sunny California. Then Jim Mullen found where a pane of glass had broken into long pointed slivers and it didn't take his fertile brain long to conceive of a use for these. He poked them down through a crack in the wash bench and they looked exactly like icicles. In the morning Jim was waiting for Chester and gave him a shivery good morning and started talking about how cold it was and that he bet it froze ice last night. Chester scoffed at that, then Jim said, "Look there, if you don't believe it," and Chester looked and saw icicles hanging along the edge of the wash bench. He was dumfounded. A little later he discovered that he had been jobbed again. Chester had a hard time getting used to that bunch.

We were now about to enter the period of expansion in road construction and the advent of the machine age, bulldozers, cats and graders, compressors, etc. I will attempt no description of this work for I must taper off some place or I will never get through with this write-up.

In 1931 Hornby started his fire plan study and I began work on the fire transportation plan; starting first with the Clearwater in 1931 and the St. Joe in 1932 and following with a study for all the western Forests. There is much that might be said about this work but most of this is a matter of record. It was highly interesting work and I enjoyed every minute of it, but it had the unfortunate result of pulling me away from active participation in survey and construction during a period when radical changes were being affected. It was difficult later to get back in stride.

In 1933 the CCC's arrived. That first year was a period of confusion and adjustment. Forest Service personnel striving to absorb new conceptions of work accomplishment with boys from the streets and alleys of New York and Brooklyn and the administration of these boys by Army personnel. The reactions of the boys, rudely transplanted hundreds of miles to a new life, utterly foreign to anything they had ever known. The administration by Army personnel. No wonder there was confusion when all these elements were suddenly thrown together.

A whole book could be written about the CCC, but one incident stands out in my memory, probably because it gave me a few bad moments.

I was on the Clearwater inspecting CCC work, and this particular morning was on the reconstruction of the road to the Bungalow. A rock cut had just been shot. All such work was of course worked on a schedule and everybody knew in advance just when and for how long the road would be blocked, but some things don't wait on schedules and one of the boys in the North Fork camp chose that time to go off his head.

The dust had hardly settled before the ambulance with the boy and the doctor drove up. He walked across and explained the situation and wanted to know what could be done. My car was on the other side so I told him to get the boy and I would take him to Pierce where he could get another ambulance. I was driving a Dodge panel body with a large door in the rear that could only be opened from the outside. I would have felt much more comfortable if there had been a heavy screen back of the seat, but we got to Pierce without difficulty and I left them at the Clearwater Hotel and went about my business. Some time later I was driving past the hotel and the doctor came running out to tell me he couldn't get any kind of transportation and the boy was getting hard to handle so I told him to get him and I would take him down. The doctor was very grateful for this. He put the boy in the car and started out. Everything went fine but it was getting late in the day and the boy was getting more difficult. The doctor said that was the worst time of the day for him. When we started down the Greer hill I was nervous, for that is no place for monkey business, but we arrived in Orofino without trouble and took him to the courthouse where the sheriff let us put him in the bull pen until the car from Lewiston arrived.

The boy had a musical complex and kept talking about songs he had written and those he was going to write, and the doctor carried on a conversation with him continuously to keep his mind occupied.

Several days later I saw the doctor at the camp and asked about the boy. He said, "Those yaps at the hospital at Lewiston didn't believe me when I said they should watch him closely, and he got away. They had quite a time finding him and when they did he was in the cemetery walking around holding up a stone cross and singing."

Before bringing my story to a close I must say something about transportation conditions and difficulties in the earlier years.

The roads, and I am speaking of the main routes of travel across the State, were, to begin with, primitive routes of travel and remained so for quite a number of years. These roads were narrow dirt roads with alignment and grades that were subject to the whims of the topography.

When I think back on those days and consider the kind of roads we had to drive over and the kind of cars we used I wonder how we did it. For many years I drove a model T Ford and averaged from 6,000 to 8,000 miles per season, yet never had an accident aside from the one previously described, and the same was true of other Forest Service personnel. There were very few accidents, probably because we had to drive slow. At that time it took all day to drive from Missoula to Sandpoint or Coeur d'Alene and it spoiled a day to drive to Helena or Butte.

Out of all of the road system there were naturally a number of sections that on account of their dangerous or difficult features established wide-spread reputations. I will mention a few.

The Libby-Troy section. Here the road was narrow and contained some very sharp curves. The road climbed up to about 500 feet above the river. This road afforded a panoramic view of unsurpassed beauty of the Kootenai Valley for miles. It is unfortunate that this had to be sacrificed in the building of a modern highway.

The Laclede hill between Sandpoint and Priest River with grades up to 18 percent. The Tuscor hill on the south side of the river between Noxon and Trout Creek. This hill had steep grades and switchbacks. I drove over it one night without any lights.

Camels Hump was another troublesome spot and Priest Pass on the road to Helena was another that was widely known but not particularly bad.

Sullivan Hill between Helena and Great Falls was another notorious hill, famous principally on account of the dobe soil, and woe unto the car caught there during a wet spell. People living in that area used to take the fenders off the cars, otherwise the mud would ball up between the wheel and the fender and lock the wheel.

There were scores and scores of lesser hills and troublesome sections that used to make plenty of trouble for the old model T Ford, but the hills just mentioned stand out most vividly in my memory.

After I got a Ruxel gear installed I had no fear of any hill. I believe a Ford with that gear would climb up the side of a house if it could get traction. I used to have a lot of fun passing big cars on the steep grades.

The old model T was the butt of many jokes but did yeoman service and in many respects was a remarkable machine. There wasn't much about it to go wrong and when it did quit could generally be fixed in a few minutes with a screw driver and a pair of pliers. Now we drive on paved highways in modern cars that are largely a mechanical mystery, and when they quit we must wait for the services of a skilled mechanic.

On our main road system in Montana only one short section of the old original road remains. That is between Troy and the Yaak River and this will be largely eliminated as soon as the new bridge is put in use, and thus will pass the old road over which we traveled so many weary miles; where we saw the pioneer tourist, dust-covered and weary, trying to make a steep hill or struggling to change a tire on a clincher rim or standing by the side of the road and asking in a bewildered sort of way how far it was to the next gas station. Again, he might be stuck in a mud hole and covered with mud and wrath, asking "Why in hell don't Montana do something about their roads?" There was no answer.

Now we have a system of improved highways that, in spite of many faults, compare favorably with any State in the West, but the old pioneer tourist would resent being told of this for now he likes to sit in the sun some place back East and tell his cronies about the time, years ago, when they bought a car and drove out to the West Coast and what a hell of a time they had crossing Montana and Idaho. He feels kinship to the covered wagons of the Oregon Trail, and in his own small circle feels heroic - maybe he is.

My experience on fires has not been of a nature that merits detailed description. It was routine work - a dirty job that had to be done. I have met a few fellows that claimed they enjoyed fighting fire, but I have always thought there was something wrong with their heads. But in all this time I have formed certain conclusions. I have always felt that the policy of fighting all fires in all places at all times was too inflexible. Many fires do more good than harm. I have been on fires where, considering the season of the year, the location of the fire and the fuel type, for all the good we did we might just as well have taken the money represented by the cost of fighting the fire and put it in a sack along with a fair-sized rock and threw it in the river. I have discussed these points with Supervisors, Deputy Supervisors and rangers, and, they would invariably agree with me! I could never get an argument.

One man said, "What would the public say?" My reply was that if, after all the years of our administration of the National Forests, they didn't have sufficient confidence in us to say "Those fellows know their business; if they say that is the right thing to do then it is the right thing to do," then some place along the line we have "missed the boat."

I offer this not in a spirit of criticism but simply as a conclusion I have formed that years and experience have failed to break down.

It was either my good fortune or misfortune to be on many fires with Frank Jefferson. Frank was a great strategist and liked to shift his troops frequently, which was all right except it was pretty tough on the camp boss.

About 11:00 or 12:00 o'clock at night Frank would come around with his plan, then about 4:00 a.m. I would have to get the crews up for breakfast, see that the trucks were lined up and ready, get the right number of men on the right trucks, see that they had tools, water bags, lunches, etc., and send them happily on their way.

On one fire I was there ten days and averaged three hours' sleep each day. It's a great life if you don't weaken.

Now I am bringing to a close this story that I thought at first would be short, but it has grown in spite of much that I have left out until it is nearly a book. However, I have no desire to write or even attempt a book and be classed with a character in a story I read recently, about whom the author made the following statement: "He had a wild idea of writing a book. One of the delusions from which most people suffer is that other people are interested in their recollection."

My years with the Service have been rich in experience and lasting friendships; they have imbued me with respect for all the Service stands for and a deep affection for the hills and the forest and wild life. In tribute to this I would like to repeat a poem written several years ago by Mrs. Bessie K. Monroe of Hamilton, Montana.

The title is "Meadows."

"I have known a mountain meadow,
All sweet with highland flowers,

Where the deep grass drank the sunlight
In the quiet forest hours.
I have rested in camp at night time
Near to the singing stream,
Glad for the end of the rock-bound trail,
Glad for the camp fire's gleam.
"I have come far from the meadow
With its lovely highland flowers,
God's garden of the skyline,
Tended by sun and stars.
Sometimes Life's trails have been rock-bound
And wearying to the heart,
But I know of soul-lighted meadows
Where God plays the gardener's part.
"There friends are the flowers that gladden
And love is the singing stream;
The lowly lights of service
Are like to the camp fire's gleam.
"Oh, I shall break camp with the daylight
And climb again to the trail,
But my heart will keep to the meadow
I seek no distant grail.
The treasured flowers of the highland
Will ever in memory blow,
And the hearts of love and service smile
From the meadows that I know."

/s/ H. A. Calkins



Bitterroot-Big Hole Road. Built 1914.



Lick Creek Timber Sale, Bitterroot National Forest, 1909.

ALBERT E. COLE
Senior Ranger
Deerlodge
(Retired 1935)

P.O. Box 67
Deer Lodge, Montana
May 26, 1944

About the middle of May, 1905, I was stationed at Benecia Barracks, Benecia, California, awaiting my discharge from the Signal Corps of the U. S. Army. I had returned from Alaska the fall before after two years' service in that country, mostly spent in construction and maintenance of U. S. military telegraph lines under the more-or-less supervision of two officers of the Signal Corps who later on were to attain distinction in the Army, one as Chief Signal officer, and the other, General "Billy" Mitchell, who was to advocate too strongly the airplane and who was court-martialed and dismissed from the Army, but whose predictions and farsightedness are just being recognized today.

I worked with General Mitchell (then Lieutenant Mitchell) on the upper Tanana River and received from him my first promotion during the time that he was with our crew. During the winter of 1902 and the spring of 1903 the gold stampede from Dawson took place, which founded the town of Fairbanks, through which site we had built the telegraph line the fall before, and when we returned down the river in June 1903 there were upwards of ten thousand people living in tents where the city of Fairbanks now stands.

Some time before receiving my discharge from the Army I received a newspaper clipping from my mother stating that a Civil Service examination for the position of Forest ranger would be held in my home town about June 25, 1905, and that anyone desiring to take this examination should contact the Forest Supervisor for information.

The only occupation that appealed to me was some kind of outdoor work, and that in the woods and mountains as far from settled communities as possible, as I had always been an outdoor boy and man and my work in the north country had only sharpened my appetite for more. Accordingly I decided to return home and try to get on as a Forest ranger, as I thought that kind of life was just what I wanted. Also, the Government service appealed to me, no doubt enhanced by my service in the Signal Corps of the U. S. Army.

I received my discharge from the Army on May 30, 1905, and, although I was urged by my company commander to reinlist and go back to Alaska, I returned to my home and lost no time getting in touch with Forest Supervisor J. B. Seely, who had his headquarters at a small ranch about three and a half miles below Virginia City, Montana. After quite a long talk with Mr. Seely I secured an application blank for the Forest ranger examination and mailed it to the Civil Service Commission. While awaiting the date for the examination I brushed up on packing a horse and other possible subjects which I hoped would help me in the examination.

The examination was held in the Virginia City schoolhouse (that is, the written test); and the field test was held at different places adjacent thereto by Elers Koch, for many years in charge of Silviculture in Region One. Mr. Koch, I understand, has recently retired.

The written test consisted of questions pertaining to the knowledge of cattle, horses and sheep, knowledge of the different brands and location of ranches and the different ranges where the stock were run during the summer months, also how to cook, the making of baking powder bread, and how to take care of oneself in the mountains and woods. The field test included timber estimating, riding and packing a horse, shooting with rifle and pistol, surveying, mapping, pacing a measured distance, cutting down a tree with an ax, compass reading, etc. Since I had never had any mapping or surveying or compass work, and no timber estimating, it was all rather a lot of guess work with me.

There were only three of us that took this examination - a man named Knight, another man named Cole, and myself. Mr. Knight was a lawyer who-thought he would rather have outdoor work, Cole was a rancher, and I was a Jack-of-all trades and master of none of them.

After taking the examination Mr. Seely hired all three of us as Forest guards and sent us to the upper Ruby Valley to work for the Forest Service, to finish building a small one-room cabin to serve as a ranger station, and to get out posts and poles for a pasture fence and do other work in connection with developing the ranger station site. We were to ride over that part of the Forest Reserve, as they were called at that time, to contact ranchers, stockmen and other Forest users to acquaint them with the rules and regulations of the Forest Reserves and to help them get accustomed to the procedure for getting permits for grazing and timber.

Almost all of the ranchers of that part of the country were very hostile to the Forest Service objectives and were very bitter in their denunciation of the rules, but were not necessarily hostile or dangerous to us as individuals nor to us as Forest employees, as they knew we had to do our job and they realized we had no personal feeling toward them in the performance of our duties. They all thought that the Forest Reserve idea was a crack-pot scheme of some politicians in Washington and that it would be done away with as soon as a Democratic administration took over the government of the country, and even President Theodore Roosevelt, who had been quite popular in that country before, was severely criticized and lost considerable prestige and support because he had supported the movement.

As I had been born and raised in this county and was well acquainted with most of these ranchers, and my father, being a carpenter, had erected buildings on a number of the ranches and I had been with him on several jobs, it seemed to surprise many of the Democrats, as they knew my father was a staunch Democrat, to see me employed by a Republican administration, as all of them thought that all Government jobs were obtained through political pull. One old man said, "I am very much surprised to see you hiring out to the Black Republicans and lowering yourself by working for such a bum outfit; but you'll lose your job sure when we put in a Democratic President, and this Forest Reserve business will be done away with and we free American citizens can cut our timber and run our stock as we always have."

In order to contrast the difference that "political pull" worked in connection with the officers of the Forest Service at this time was with the situation a few years back when most all of the Forest Supervisors and rangers were appointed through the influence of the different political organizations, there went in to Washington three separate and distinct petitions to Senators and members of Congress for the removal of the Supervisor of this Forest Reserve on the grounds that he was too severe in his administration of the timbercutting and grazing uses on the Madison Forest Reserve. I was shown one of these petitions, headed by the local district judge, a Republican, and signed by Republicans and Democrats alike, but all of these petitions were of no avail and Mr. Seely continued to stay on as Supervisor for a number of years. Mr. Seely was also warned by an anonymous letter not to show himself in the upper Madison Valley on pain of death by hanging. Mr. Seely promptly rode up there on horseback and called on several of the ranchers who he knew were after his scalp, but no one offered to harm him or even threaten him to his face. (Note: Mr. Seely died a natural death some years later.)

In contrast to the attitude of some of the ranches, there were others, mostly the owners of the larger holdings, both sheep and cattle men, who agreed that some regulation of the ranges had to be made, as there was serious friction between the owners of both classes of stock in the use of the range, and some bloodshed and terrorism had been resorted to by both sheep and cattle men in the fight for grazing grounds.

One incident had occurred in the summer of 1901 - when one outfit that ran both classes of stock had one of their sheep outfits raided, the herder beaten and told to clear out, and their sheep scattered through the timber, the camp burned and everything destroyed by cowboys belonging to their own ranch. The herder made his way back to the home ranch, but not before the cowboys had returned and boasted of their exploit. About the first man the herder met when he got back to the home ranch was the foreman, and as the herder had never been to the home ranch before, having been hired and outfitted on a small unit of the company ranches, the foreman asked him very profanely what he was doing there. The herder told his story of the raid and said that he had been herding for this outfit. The foreman and his cowboys were wearing large bandanna handkerchiefs over their faces when they raided the sheep camp, so that the herder did not recognize the foreman. The foreman recognized the herder all right but did not let on to him who had raided him. The incident was kept quiet for a long time, but the facts finally leaked out and other sheep outfits used the story as propaganda against the bloodthirstiness of cowboys in general.

Toward the end of October, 1905, I was transferred from the upper Ruby Valley to Sheridan, Montana, to assist the ranchers in obtaining permits for posts, poles, house logs and small amounts of saw timber for use on their ranches. These permits were all free use, but they had to be issued by the Washington office and it was months before they were returned after the applications were made. However, generally the timber was marked and cut and on the ranches before the permit came back. This was necessary as the rancher had to get out this stuff before the snow got too deep for such work. I was kept plenty busy covering the country from Sheridan to Whitehall, all on horse back a distance of about forty miles with numerous ranches all along the way.

While sitting in the hotel office in Sheridan one evening talking to the men who habitually loafed there, a gentleman came in and, seeing me, asked if we could go up to my room, as he had something to ask me in regard to the Forest Reserves. I was well acquainted with this man and knew him to be an influential rancher, stockman and business man, although he did not run any stock on the Forest ranges. We talked until midnight, and I explained to him the aims and objectives of the Forest Service. He seemed very much impressed and asked numerous questions about the grazing practices and timber uses on the Forest Reserves, and I furnished him a copy of the Use Book and explained that the Forest Service was not adopting a policy of arbitrary restrictions but that we were to try to help the ranchers and timber users to a better use of the Forest resources. He expressed himself as being fully satisfied that we were on the right track and said that he would talk to other stockmen, ranchers and business men and let them know what he believed was to be gained by this new movement in the conservation of the timber and forage resources of the country. It was men like him that overcame the prejudice of the more intelligent stockmen, ranchers and businessmen toward the Forest Service objectives.

I want to mention, in passing, that the Forest guards and also the rangers and Supervisors had to furnish their own horses and equipment, our own subsistence and lodging, feed our horses and pay all of our own expenses, whether we were at our headquarters or, in the field. Forest guards at that time started at \$60 per month. The only equipment that was furnished was a marking axe (and, oh, what an axe!), a notebook and a book of regulations called a Use Book. This marking axe was about the clumsiest tool I think I have ever had to use in all my life. It was shaped something like a pole axe or single-bitted axe, and the side opposite the blade had the letters "U.S." and was the marking part of the tool. It was out of balance and was so hard that it could hardly be sharpened and on account of its hardness the blade broke and chipped off at the slightest provocation. The marking hatchet in use now is a far cry from the clumsy tool of the early days.

As I had not passed the ranger examination, I was laid off in December of 1905 and worked at different jobs during the rest of the winter.

Early in the spring of 1906 Mr. Seely notified me that another ranger's examination was to be held at Townsend, Montana, and urged me to take it as he thought I would be able to pass it this time. Accordingly I went to Townsend and took the examination, which was given by a man by the name of Moore who was Supervisor of the old Elkhorn Forest Reserve. On my return, Mr. Seely again hired me as a Forest guard, and, in company with another man who had taken and passed an examination the year before, I went back up on the Ruby River and started work where we had left off the fall before, building a fence around the ranger station pasture and making improvements to the station and grounds.

Late in May, Mr. Seely came up to the station and assigned this ranger and myself the job of making a trip over the Gravelly Range, which formed the divide between the Ruby and Madison Rivers at the upper headwaters of these two streams. We were to post a boundary line between the sheep and cattle ranges along the length of the Gravelly Range about one mile down from the summit on the Ruby side. As we had only one saddle horse apiece and were not financially able to buy others, we decided to pack our horses and walk on this trip.

We left on June 1 and traveled all day in the rain and made a wet camp that night near a lake called Romey's Lake where we were to begin our posting job. We were not furnished any maps of the country and as neither of us had ever been in that part of the country before we had to "feel" our way and our progress was naturally rather slow. We had rain or snow every day with mist and fog so that we could not see far enough ahead to plan out our trip, with the result that we were lost on several occasions and had to cover the ground twice and sometimes more. We got into a steep canyon and were three days getting out of it, and then only by cutting a trail out through thick reproduction of lodgepole pine about 10 to 20 feet high. We had wet clothing and wet or damp bedding every night except about the last two nights, so that conditions were not conducive to a very good job or very good spirits. However, after a tough trip we finally wound up about as we should, though we did not get as many signs posted as we could have if weather conditions had been more favorable.

We returned to the Ruby Ranger Station on July 1 and I rode to the post office, a round trip of about 20 miles, to get the mail. In the mail were orders for us to go to the head of Ledford and Rob Creeks and meet four or five sheep outfits which were coming in and count their sheep and accompany them to their several allotments. As we had no description or maps of their allotments we had to take the camp-tender's or foreman's word as to where they were to go. However, we got along pretty well and got some good experience and a knowledge of the country and of the different sheep outfits and their personnel.

By the time this job was finished it was nearly August 1 and my partner had already been ordered to another ranger district, so I wound up the work and on my way back to headquarters I stopped and got my mail. I was surprised to receive a telegram, which had been mailed to me, to come to the Supervisor's headquarters at once. I left the Ruby Ranger Station early, the next morning, and with my bed roll on the back of my saddle rode to the Supervisor's headquarters, a distance of about 40 miles. Mr. Seely informed me that I had been transferred to the Helena Forest Reserve to assist in checking on trespass timber cutting on the Dry Cottonwood District of that Forest. As soon as I could put my horse in a suitable pasture I went to Butte by train and hired a livery outfit to take me out to the Dry Cottonwood District. I reported to Earl H. Clapp there and got acquainted with him and Walter J. Derrick, L. D. Williamson and Mallory N. Stickney who were already working on the trespass timber cases in that part of the country. Derrick was in charge of the Dry Cottonwood District, Williamson of the adjoining district. Clapp was from Washington, D.C., and Stickney was a recent graduate of Ann Arbor, just assigned to the Helena Forest.

The work that these men had been doing and which I was to help them with consisted of scaling stulls, counting lagging, measuring cordwood and mine props and converter poles, and investigating the ownership of the cut products and making out trespass reports and propositions of settlement for the timber cut. The disposal of slash was a "bone of contention," inasmuch as most of the cutters were very much opposed to piling brush as most of them had cut the material on a contract basis and had not counted on the extra work involved in that activity. W. J. Derrick, being the ranger in charge of the district, had many hot arguments with the Austrians and Italians who had cut this timber for the mines in Butte, and once or twice he was threatened rather seriously but generally prevailed on them to conform to Forest Service regulations.

An amusing incident occurred when we crossed over the hill from the Dry Cottonwood Creek side to the head of Flume Gulch. Derrick had given us to understand that an Austrian family by the name of Casagranda, who lived at the head of Flume Gulch, had stated that there would be bullets flying when we invaded their place to scale stulls, etc. I think Derrick told this mainly for Clapp's and Stickney's benefit, as they were from the East and he wanted to impress them with the hazards of the Forest ranger's life in this wild and woolly western country. We did not dodge any bullets, but the whole Casagranda family and some of their relatives sat or stood around us as we worked. Stickney was crawling around a pile of lagging, getting a count on it, when he crawled right into a yellow jacket's nest and was badly stung before he could get away from them. He always insisted that: the Casagrandas deliberately planted the wasp's nest there to sting us for revenge.

We worked in the Flume and Browns Gulch country until late in September and succeeded in cleaning up most of the trespass material. We had no trouble with any of the residents of those areas, but a few of them talked very big about what they would do to us both physically and through legal means but that was the last of it.

Another amusing event occurred before we finished the work on Derrick's district. We were camped near a dairy ranch and during our absence one day the cows invaded our camp and tore things up and left disgusting evidence of their visit. They chewed everything they could find, such as our duffel bags, socks, underwear, etc. We arrived back before they left and some of them were still chewing on some of our clothing. Derrick went into his tent and emerged making strong remarks. Stickney had just got in and did not know of the damage and started to kid Derrick about getting so warmed up. Then Stickney went into his own tent and found his duffel bag entirely missing and he rushed out shouting, "Run hell out of them, Derrick, run hell out of them." It made quite a difference "whose ox was gored."

When we finished the work on Derrick's district I was assigned to work with Ranger Williamson on the Bernice District, which adjoined the Dry Cottonwood District. I took up my headquarters at a ranch in Elk Park, which was an area about ten miles long by three miles wide lying between the railroad stations of Elk Park and Woodville, practically on top of the Continental Divide and well watered by Bison Creek and tributaries and bounded on the east and west sides by high, rugged hills and mountains. The park was thickly settled by Swedes, Italians, Finns and a few French Canadians. The main activities were ranching and cutting timber for the mines in Butte.

Forest Supervisor Bushnell was kind enough to let me have the use of one of his good saddle horses and riding equipment, and thus equipped I rode herd on the timber cutters and measured timber and made out trespass reports and argued with the many different denizens of that locality as to brush disposal and payments. The hardest man to deal with was a French Canadian named Dave Dubie who hired choppers to cut timber for him on a contract basis. Dubie also ran a saloon at Elk Park and a small store. He generally managed to keep the choppers in perpetual debt to him so that he did not have to lay out much money for their work. Both Ranger Williamson and I had many hot arguments with this man, and he was always trying to bribe us with cigars and the offer of drinks to shut our eyes to a portion at least of his activities. One trick he used was to send his bartender out, while we were arguing with him, and fill our carrying cases with cigars and bottled goods, hoping we would accept them and make things easy for him,

but Williamson, who was easy-going most times would take the stuff back into the saloon and tell Dubie in no uncertain terms what he thought of such underhand proceedings.

About the first of October I finished the trespass work in the Elk Park region and was ordered to Bernice to work with Ranger Williamson. About that time I received my returns from the ranger examination, and was much disgusted and chagrined to learn that I again failed by a very small margin of making a passing grade. This of course led me to believe that I would be laid off again in a short time.

Early in October a man named Northey made application for a large tract of timber on the headwaters of the Boulder River on the district where I was working. Mr. Earl H. Clapp, who is at the present time Associate Forester at Washington, D.C., came out from the Supervisor's office in Helena to survey this tract and I was assigned to give him what assistance I could. We worked together for about two weeks making a triangulation survey, and I never worked with any man before or since who taught me as much about surveying and timber estimating as he did during those two weeks we worked together. He was the finest and most patient teacher and instructor that I have ever had the good fortune to be associated with. May his shadow never grow less. When we finished the job Mr. Clapp told me that he was practically sure that I would be kept on all winter as the Service was short of help, and that I could tackle the examination again next spring with every hope of passing.

After Clapp returned to the Supervisor's office I received word to return to Madison County and get my horse, as it had been decided to keep me on all winter. I think Mr. Clapp had much to do with that decision, for which I have never ceased to be grateful.

During the winter of 1906-07 I worked on the Bernice and Dry Cottonwood Districts under Rangers Williamson and Derrick, alternating between these two districts whenever the work piled up too high for the district ranger to handle alone.

The personnel of the Helena Forest at that time consisted of:

Forest Supervisor - Dwight Bushnell
Deputy Supervisor - Earl H. Clapp (or a position corresponding to this)
Chief Ranger - Stanley Searcy, stationed at Helena
Forest Assistant - Mallory N. Stickney
Dry Cottonwood District - Walter J. Derrick
Bernice District - L. D. Williamson
Homestake District - Isidor Kiermeyer
Whitehall District - Gregg
Deep Creek District - Dana Maryott
Dry Creek District - Ben Thompson

This is all of the old personnel that I can recall at this time.

In February of 1907 I went to help Ranger Derrick in the construction of the Dry Cottonwood Ranger Station. We had a hard job of it as the weather hovered around zero and the snow about

three feet deep. This building stood until about two years ago when it was sold for the logs in it. We had working with us a man named Pat McHugh who was a good carpenter. On the hill above where we were working, a band of deer could be seen about every day, and in the evening they would file past us on the way to water. We used to count them and then one evening we noticed that one of them was missing. We had adopted the plan of one of us going back to the cabin, where we were staying, ahead of the others at the close of day to start fire for supper and also start to cook. It was Pat's turn to go that evening and he left about half an hour ahead of Walt and me. When we got to the cabin there was no Pat, no fire, and no supper. After looking around the cabin we discovered that Pat's rifle was missing. Walt went out and looked around while I started supper. In a few minutes Walt came back and said he thought that Pat had gone out after a mountain lion, as he had seen both Pat's and the lion tracks leading out east of the cabin. Pat returned about nine p.m. and reported that he had found where the lion had killed one of "our deer," but Pat failed to get the lion. The next day being Sunday, Pat went back and hung around where the remains of the killed deer were but never saw the lion again. This lion evidently left the rest of the deer alone, as we kept good count on them and none were missing when I left there to go to Homestake the following month.

About March 15, 1907, I was ordered to go to Assistant Ranger Kiermeyer on the Homestake District on disposal of brush, etc., in connection with the construction of the Chicago, Milwaukee, St. Paul & Pacific Railroad Company, then building west through Montana. I was taken ill shortly after and had to go to Butte for treatment. During convalescence I was called to Helena and worked in the Helena office and at various jobs there. During this time a number of rangers were called in and we worked under a planting expert in planting lodgepole pine, Douglas-fir and ponderosa pine on the slopes of Mount Helena.

This, I think, was the first attempt of the Forest Service, in this part of Montana at least, to raise conifers by artificial planting. This experiment, however, was a total failure, due, I think to the particularly dry and sun-exposed site on which the job was done.

In April 1907, the ranger examination was held in Helena, and I took it for the third time. This time I passed with a very satisfactory grade.

From April until about June 1, I was employed on boundary survey with Supervisor Bushnell and a crew of other rangers, this being the first boundary work done on the Helena Forest. I also worked with Ranger Williamson, and about June 1, went back to Ranger Derrick's district to work with him.

On the trip from Bernice to the Dry Cottonwood District, which I made on horseback, I saw the only grizzly bear that I have ever seen in all my experience in the mountains. I rode over a low ridge on a dim trail that crossed from the head of the Boulder River to the main head of Browns Gulch and jumped a large bear that ran off down through the timber. I rode on down the trail to a small creek that was lined with thick willows and, on hearing a noise behind me, I looked back and to my utter amazement I saw a very large bear padding along only a short distance in my rear. I rode out of the timber to an open hillside and swung my horse around to face the bear. To my surprise the horse did not show any fear of the bear, but lowered his head and starting cropping the grass. The bear stopped and reared up on her haunches and growled deep in her

throat, and I began to wonder what was up. Finally I heard sort of a grunting noise in the willows a few yards below me and realized that I had unknowingly gotten between a mother bear and her cubs. This bear was the most beautiful specimen of bear that I have ever seen also the largest. She was so tall when sitting on her haunches and standing at full height that, although I was riding a tall, rangy horse, she could look me straight in the eye. She was a deep brown on the back and shoulders and paled off into a beautiful golden brown along the sides and flanks. Her head was a darker brown, but no sign of the "grizzly" hair was to be seen around her head or muzzle, which was evidence that she was a young bear. Only her great size disclosed that she was undoubtedly a grizzly and not a brown phase of the ordinary black bear. Also, her boldness was that of the grizzly, as I had encountered both black and brown bears with cubs before and none of them had ever displayed the boldness and ferocity of this one. She was so close to me that I had ample opportunity to observe her every motion. Also, she kept hitching along on her hind legs towards me, growling very deeply. I was getting rather apprehensive, as she was shortening the distance between us rather decidedly. Suddenly she dropped back on all fours and pounded the ground with her forepaws; at the same time she let out a roar that caused my horse to shy in fright and I turned him and started off slowly, fearing any precipitate action would bring on the terrible charge. Fortunately, however, she let me depart in peace, and I rode away from that spot with a feeling that I had escaped very luckily.

About the middle of June I took charge of the Elliston Ranger District. There was no ranger station there and I had to stay at a hotel, but was fortunate in getting very favorable terms. As my pay had been raised to \$75 per month, I made out very well. About October 1, I moved from Elliston to the vicinity of the Bald Butte mine to look after a timber sale to that outfit. I stayed with the foreman of the cutting crew all winter and looked after the administration of the sale, did all the marking, scaling and supervised the brush disposal.

Early in the spring of 1908 I moved back to Elliston, and about May 1 a Mr. Harris and a Mr. Holt came out from Helena to take a small crew to the head of the Little Blackfoot River to estimate dead standing and down timber for a sale to a man who was planning on cutting it and shipping it into Butte for mining timber and fuel. I had orders to accompany them, so we rustled a pack outfit and went up the river. The weather was very bad - snow and rain every day. The river was high and we had extreme difficulty in negotiating the way after we neared the head of the river. We nearly lost a pack horse that fell over a steep bank into the river, and we had great difficulty in rescuing him. We made camp in the Little Blackfoot meadows, and for about three weeks we tried to cruise this country under about the worst weather conditions imaginable. A great fire had passed through here between 20 and 30 years before and the down timber was lying from 5 to 15 feet above the ground. Reproduction in lodgepole pine covered this area, and it was from 10 to 20 feet high. It was hard enough to go through stuff over the down timber in dry weather, but three or four times as tough to try to force your way through with wet snow clinging to it.

Finally, about the end of May, Mr. Harris, who was in charge of the crew, told me one morning that he thought we had better get out of there as the work was not progressing at all well and our hired men were getting very sullen and troublesome. We decided that I should walk to Basin and bring a pack outfit up that way, as it was shorter than to go back to Elliston. I left at once, wearing a pair of long-legged rubber boots, that being the only dry footgear I possessed at that

time. I arrived in Basin shortly after noon and tried to get the local livery-stable man to get a pack outfit together and go up to our camp, but he said that he had no suitable horses at hand and would have to send a man out to rustle some that afternoon and that the next morning he would try to go up if all the bridges had not been washed out during the night. It stormed all that day, and about dark Harris and Holt came to Basin and reported the trail well nigh impassable for pack or saddle stock, so we decided to try to go to Helena the next morning and take a pack outfit in from Elliston. That night about eight o'clock the two Great Northern passenger trains met in Basin, and just at that time a dam went out on Bison Creek above Basin and that carried out a small dam below Basin and totally destroyed the railroad track on both sides of the town. A number of the passengers came-up to the hotel to stay, so Harris, Holt and I gave up our room to some women and children and spent the night talking and playing pool in the bar of the hotel. The next morning Harris induced the livery-stable man to hire us a team and two-seated surrey by paying for them in advance and promising to send them back if we found we could not get through. A driver was furnished in the deal.

We left Basin about eight a.m. and started down the road towards Boulder and Helena. We met numerous men on foot who warned us that we could not get to Boulder with the outfit. However, by alternating between the wagon road and railroad bed we finally drove into Boulder about eleven a.m. It was about nine miles from Basin to Boulder by the wagon road. Boulder was under about two and a half feet of water and our driver refused to go any further. We picked up another man who worked for the Basin livery stable and who had got to Boulder the afternoon before from Helena and who thought we could make it through. We drove to Jefferson City, had dinner, and got about three miles below that town and came to a place we could not get the team through or around, so we sent our driver back and started out on foot. My long-legged boots were chafing me pretty bad, as I had had to walk ahead of the team with a long pole sounding out the depth of the water all the way from Basin to Boulder. We hiked along the railroad and crossed a large stream of water on the rails and ties of the track where they swayed back and forth, held together only by the "fish plates," which are pieces of iron bolted to the ends of the railroad rails to hold them together. Harris and I crawled across, but Holt, being a daredevil sort of a man, actually walked the rails across this stream. We procured another team in East Helena and drove on to Helena about nine p.m., and the next day we hired another team and drove on to Elliston, where a pack outfit was secured and Harris and Holt went on up and got the men and camp equipment out. It had stopped storming the day we journeyed from Basin to Helena. I stayed in Elliston for a day or so, as my ankles, heels and toes were raw from chafing in the rubber boots.

About June 22, 1908, Supervisor Bushnell came to the Elliston District and informed me that I was to be transferred to the Muskrat Ranger Station to take charge of the Boulder Ranger District. After cleaning up some work on the Elliston District, I went to Boulder and took over that district from the man there, who was leaving the Service. After a little over a year on the Muskrat Station I was again transferred to East Helena to look after the north end of the district which I had been handling, as the district had been divided on account of the heavy volume of the work on the north end. This new district was called the McClellan Creek District and was a very active district in regard to timber sales and large free use business for the ranchers of the Prickly Pear Valley.

One trip which I recall just before I left the Muskrat Station was a trip on "additions and eliminations" to the National Forest, which I made with Walter J. Derrick, who had transferred to the Helena from what is now a part of the Deerlodge Forest and what was then called the Hell Gate Forest Reserve. We made good progress around the north end of my district along the Forest boundary, and I expected to go back when we arrived in the vicinity of Radersburg, as another ranger was to go with Derrick from there. This man did not show up, due to some confusion in his orders or to some other cause, and Derrick got in touch with the Helena office and I was instructed to stay with him until he finished the job. We had a camp man who moved camp by team and who was a very good man for the job. This was the early part of October and while the weather had been fine the trip had been quite pleasant. We left camp early one morning and it started to rain about 10 a.m. This quickly changed to snow and by noon it was snowing very hard and visibility was almost zero. We had to keep moving as we had arranged to have the camp man meet us on Crow Creek some 15 or 20 miles from the place which we left. The weather got worse and a fog or mist came down, reducing the visibility much more. We left the timber and came down to open country and plodded on. Darkness came on, but we did not like to stop as we were afraid of getting chilled even though we could have built a fire. We had eaten our lunch and saw no gain in hovering around a fire all night, so we kept on, and on, and on. Neither of us had ever been in that part of the country, but we had a fairly good map and were confident that we could find our camp eventually. We got tired and weak, and our spirits were at a very low ebb. We finally found a road and followed it for hours. Finally, as we were stumbling along and falling quite frequently, I, being slightly in the lead, tripped over what I thought was a tree limb and fell on my face. I heard someone say, "Who the hell are you," and when I recovered my wits I saw a dim shape. I yelled to Derrick and a voice much closer said, "Is that you, Cole?" I had stumbled over a tent rope (our tent rope), axed Scotty, our camp man, told us to "come on in out of the wet." You bet we were mighty glad to see him and our beds. He explained that he was afraid we would miss him in the dark, so he had set the tent right on one side of the road and stretched one of the tent ropes across it. He said, "I did not think any other damn fools would be coming along this road on a night like this. Anybody but a poor dumb Forest Service man would stay in out of such weather."

In December 1909, a rather momentous event occurred in that our first Forester, Mr. Gifford Pinchot, resigned. This was the result of the Pinchot-Ballinger controversy. Antagonists of the Forest Service were sure it meant the end of the Forest Service life. One such man said to me: "The rest of you fellows will soon follow your leader into oblivion." He meant, of course, we would all soon be discharged and that the Forest Service was through. I replied, "My dear sir; the Forest Service will be functioning long after you and I are under ground." Well, I am still alive, but I believe he has passed on, and the Forest Service is much stronger and doing much better work than ever before. The old antagonisms are about all dead now and some of our old enemies have nothing but praise for the way in which it brought order out of chaos, especially in the grazing end.

In the spring of 1910 a man, whom I shall not name, came to the Helena as Assistant Supervisor. This man was a bullheaded fellow and thought most of us were not very good timber men, and he criticized everyone from the Supervisor on down. While most all of us disliked him, we tried to do things as he thought they should be done. He was very critical of my handling of the timber sale's and free use on the McClellan District, and I saw that we would have a hard time getting

on. He was especially critical of my scaling of the free use stuff and said that I did not know anything about scaling logs. About this time an expert scaler was detailed to this Forest to give us rangers some scaling instruction, and he brought several of the men to my district for this work as I had a large amount of logs skidded up at a sawmill to be scaled. We worked all one afternoon, taking turns scaling, with this man supervising and criticizing our work. However, he offered very little criticism on any of our work and remarked that we all could qualify as scalers on most any ordinary timber. This, of course, was in direct variance with the Assistant Supervisor's views of my work. This led me to believe that the Assistant Supervisor would find fault no matter what was done. Owing to this attitude of the Assistant Supervisor, I was not greatly surprised when at a ranger meeting some time later I was informed by Mr. Bushnell that it had been decided to transfer me to a very remote district in the Big Belt Mountains called the Dry Creek Ranger District, which was practically a straight grazing job. I knew that Mr. Bushnell was at loggerheads with his assistant, but never knew just what was wrong.

I moved to the Dry Creek District in the latter part of May 1910, making the move in a dead-axe wagon, which practically ruined all my household goods. I will explain that I was now a married man and had something more than a duffel bag to move.

The Dry Creek District was a small district and I learned later was really under the supervision of an adjoining ranger, but I was not informed of this at this time and thought I was in sole charge.

One of the worst situations that I have ever been in contact with occurred during August of 1910 on part of the Forest. The Forest Service has good cause to remember the fire season of 1910 and that portion of the Helena had its troubles as well as the rest of the country. The smoke from the fires in the West was so thick that visibility was confined, even in the middle of the day, to a radius of only a few miles, and I spent a great deal of my time on patrol watching for telltale smokes. I discovered what I was sure was a new fire on the district adjoining mine, and as there was no telephone connection between these two districts I rode over to the adjoining headquarters to tell the ranger what I suspected or to see if he was aware of this danger. When I got to his headquarters his wife said that he was helping some ranchers do their threshing and would not be home until night. I insisted on going on, and she finally directed me so that I could find him. I told him of my fears and he laughed and said that he had been up there a day or two before and that things were all right. There had been a small lightning storm the day before and I was sure it had set things going. We had quite an argument and he finally agreed to go up there with me after dinner. We returned to his headquarters and had dinner. After dinner we started up the creek. I suggested we take a mattock and shovel apiece, but he said it would not be necessary as he knew there was no fire, and although I pleaded that it was no trouble to take them along he refused to take any tools or to let me take any out of the cache. We rode up the creek about five miles and came to a point where we could see the head of the creek and it was plain that the smoke was much denser there. He had a small monocular and after some time let me take it, and I immediately saw where the smoke was boiling up from a good-sized blaze.

I finally showed it to him, and he admitted there must be a fire there. I then told him to go back to his headquarters and get some men and tools and I would go on up and see what I could do. He flatly refused to do this and said we could handle it and that he could get a couple of shovels from an old prospector up near the fire. Well, we went on up and did get the shovels which the

ranger said he could get, but they were old and dull and the handles were none too good. When we reached the fire it was very plain to me at least that we could never control it with the manpower and tools that we had and I again pleaded with this obdurate man to return to his headquarters and get help and some decent tools, but as usual he refused, saying we could control it by morning and that then he would go down and send up some man to watch it. We worked until midnight, then this ranger said we would go back to the place where we got the shovels and have the old man and his wife get us some supper.

When we were ready to come back I again proposed that either he or I go to his headquarters and procure men and equipment so that we could hold the fire in the morning, but as usual my pleas fell on deaf ears, and we returned to the unequal battle. About five o'clock the next morning the ranger broke his shovel handle and finally agreed to go back to his headquarters and send some men and equipment up to the fire. I told him to make it as quickly as possible, as I knew that it would be a miracle if the fire did not go out of control when the sun got hot.

He left, and I continued to work, trying to complete the fire line before it got too hot. About eight o'clock, however, a strong wind came up and the fire started jumping our poorly constructed trench, and in less than fifteen minutes it was out of control and sweeping up the slope at an appalling rate. There was a large stand of big fir just above the fire line and when the fire hit this timber it sprang to the crowns and went faster than a horse could travel on up the slope. I managed to get up on a ridge on one side of the fire and while standing there in despair I heard someone yell and met a man who said that he was from the Helena office, that the fire had been reported from the other side of the mountain and he was to take charge of this fire. I told him that men were coming as far as I knew, but that I was going back to my own district. He said for me to go, but to send the ranger back up there as soon as he could get there.

I returned to the ranger's headquarters, found him asleep, but met some men going up to the fire. I woke the ranger up and made my report, and rode back home.

This fire cost the Forest Service some \$2,000 and was not put out until the last of August, when a light snow put the finishing touches to it. Why this ranger was so chary of taking tools and men to the fire, I have never been able to find out. It could have been controlled that night, I fully believe, if we had had two more men and the proper tools. This ranger had been a Supervisor of the then extinct Elkhorn Forest, and he evidently did not believe in taking the advice of a mere ranger, who had such a small district to handle or who was practically under his orders.

In October 1910, I was told by Mr. Warner, then Assistant Supervisor on the Helena Forest, that, as there was no money available for paying the salary of a ranger on the district I was handling at that time, it would be necessary to furlough me for the winter, beginning January 1, 1911, but that I could stay at the ranger station and that I would be put on the active list about April 1. I refused to stay on under this arrangement, and left the District about February 1 and returned to my home at Virginia City. Later I went to work in Butte, Montana, on the streetcar lines in that town, and worked there until about April 1915, when, after taking the ranger examination again, I went back to work in the Forest Service under Mr. L. C. Stockdale, who was Supervisor of the Deerlodge National Forest. I worked on upper Mill Creek, near Anaconda, on timber sale work until July 1, then was sent to the Fleecer timber sale, where I worked under Mr. Bill Latane, later

taking charge of this sale until about July 1, 1917, when I was placed in charge of the Dry Cottonwood District of the Deerlodge Forest.

I noticed a decided change in the attitude of the general public toward the Forest Service when I returned to the Forest work in 1916. On the Dry Cottonwood District I again came in contact with the Austrians and Italians of the Browns Gulch country, and these people were not nearly so hostile towards the Forest Service as they had been in 1906 when I had worked with W.J. Derrick there in settling trespass cases. Also I found greater friendliness from the stockmen and other users, and a decided trend of attitude toward cooperation with the regulations that had not been apparent during the earlier days. Stockmen and other users in general had begun to realize that the Forest Service was working for the good of the people as a whole and that the small operator, whether rancher, timber man or sawmill owner, was treated just as fair and with as much consideration as the larger holders. This had a tendency to give the Forest Service a reputation for fair dealing and to make for fuller cooperation and friendliness all around. Also, the fact that the Forest Service had cracked down on some of the large cattle and sheep outfits and had succeeded in enforcing the laws and regulations in numerous trespass cases had engendered a wholesome respect for the Service, and the fact that political pull had no effect on the action of the Supervisors and rangers in enforcing the law taught the larger outfits, both stockmen and timber men, that they had to obey these men, and encouraged the smaller holders to a better feeling and a better spirit of cooperation. Also, both large and small operators began to realize that there was real merit in the method of handling stock and timber and that good results were becoming apparent, and a great many of the large as well as the small outfits because actually enthusiastic in following the instructions and orders of the Forest officers.

From April 1916 until July 1, 1935, all of my work was on the Deerlodge National Forest. On July 1, 1919, the headquarters of the Deerlodge Forest were moved from Anaconda to Butte and L.C. Stockdale was transferred to the Regional Office in Missoula and W.W. Weber was in charge of the Forest until about October 1, when Fay G. Clark took charge.

There is, I believe, no need to go into detail regarding my work from 1916 to 1935, when I retired on account of disability, "incurred in line of duty," as they would say in the Army.

The work was very interesting and fascinating at times, and at other times was somewhat boring, especially when office work became so heavy that the winter months were devoted to it almost exclusively, to the detriment of the health and the field work that should have been done.

About 1932 there was a wave of "economy" that struck the Forest Service with devastating effect and our summer help was cut to the bone, on top of which the ranger districts were enlarged so that each ranger had from two to three times as much area to cover, with little or no help in the busy season. The result of this, so far as I was concerned, was to cause a breakdown in my health, which finally resulted in my retirement. The fact that I had no regular help in the summer months resulted in numerous cases of having to put in from 15 to 30 hours or more during the fire season, which was just too much for my physical wellbeing.

I wish to make a closing comment on a change that became apparent about 1932 which seems to be worth noticing. I have mentioned before the absence of political influence in the Service itself

and the total disregard of the Service to political prestige of the trespasser or anyone else with whom the Service had to deal. However, since 1932 it became more and more plain, at least to a number of us rangers and Supervisors that the Washington office seemed to have a tendency to "soft-pedal" anything that in any way antagonized or caused the least bit of friction with any of the Senators or Representatives in Congress, and for the first time since I had become acquainted with the Forest Service policies I became aware that political pressure has become a factor in the carrying out of some of the policies and aims of the Forest Service. This tendency is, in my opinion, one of the most regrettable things that could happen to a Service that has been so clean and clear of anything like political pollution in the past, and I earnestly hope that this tendency will be abolished before it strangles the real life out of a truly great and good Government Service.

(NOTE: Mr. Cole covers in a separate story his career from 1916 to his retirement in 1935, which will be found in Vol. II ---- Ed.)

CLYDE P. FICKES
Construction Engineer
Engineering, R. O.
(Transferred to Treasury Dept. 1944)

Missoula, Montana
May 1944

THE STORY OF THE REMOUNT DEPOT

The fire season of 1929 was one of the worst. Whether or not it was a fitting introduction to the new Regional Forester, I would not attempt to say. Fire Control as it has been modernized was then under Operation. L. C. Stockdale was Assistant Regional Forester in charge, with Howard Flint in charge of Fire. G. I. Porter was assistant to Stockdale and responsible for so many different things that I never did find out what he wasn't responsible for. Henrietta (Hank) Sell was secretary to Stockdale and next to G.I. the office inspiration. The writer was trying to handle the many details of the improvement job and the many miscellaneous errands that no one else wanted or had time to do. When the fire season began to boil over, following the practice of previous years, the operation of the fire desk in the R.O. fell to the lot of Porter with Fickes to assist him,

At first the forests asked for equipment. Then as local supplies of men were used up they asked for equipment and men. Then before long pack stock appeared on the requisitions. Since I had been hiring men and dispatching them to the forests the getting of horses and mules was also turned over to me. At first it was easy to get fully equipped strings of commercial stock but this supply was soon exhausted and it was necessary to hire unequipped stock. Our stock of saddles was rapidly used up and soon Bradeen was having saddles made to order for immediate use. The supply of experienced packers did not last long. We had lots of boys in high-heeled boots who wanted to pack, but what they knew about it was "plenty of nothin." Then there was the problem of transporting the animals from where they were to where the work was. Up to that time there had been very little hauling of animals by truck. So, we had to pioneer that field of activity and develop means of loading the stock on such trucks as we could hire. Early in the game here in Missoula we practically took over the feed-and-sale stable on West Main Street and run by Morris BeDell. He was one of the best cooperators I ever worked with. Of course, we paid him well for the services rendered but he did innumerable things which were helpful and for which he received no return except our appreciation. At any hour of the day or night, he or his stable man was on the job to keep things moving for us.

Another who was unflagging in his efforts to help was Doc Carson, BAI veterinary inspector for this district. Doc inspected every animal that went through Missoula and helped to load them as well. He spent practically every waking hour at the stable so as to be available when needed.

When the load began to really get heavy for one man, Charley Butler from the Custer was assigned to help me. His job was to receive the stock at the corrals, see that it was properly put on paper, organized into strings, fitted with saddles, and assigned to a packer, if we had one on tap. As soon as an order for a string came in he would see that it was loaded and dispatched as

ordered. I was engaged in rustling horses or mules wherever I could locate them. We hired single animals as well as strings of several head as we could get them. Only a small percentage of the stock had ever had a pack saddle on and the packers had a breaking job on their hands from the start. Frankly it was a mess, but we did the best we could. When Ed Mackay wanted 50 head of pack stock for the "Big Rock Candy Mountain Fire" over at Powell, he had to have them and if I did not have them there within a few hours the Major wanted to know what the hell was holding them up. All in all we hired and shipped to at least one fire over 1600 head of horses and mules before the season was over. I ran a horse hospital out at the end of Higgins Avenue until way late in the fall, and we also paid good money for horses injured on the job. At the time I prepared a detailed memorandum of our experiences of the season but some over-enthusiastic destroyer of useless files has worked on it as it cannot be found.

All this experience with trying to furnish for the use of the men on the fire something which requires time and training to put together started a train of thought in my mind. I began to wonder why it was not feasible to have somewhere in the region available on short notice a reservoir of trained and equipped packers and pack strings. We had oodles of other kinds of fire equipment stored and ready to be shipped on a second's notice. Why not some pack stock? Formerly there was a large supply of commercial pack stock available for hire at several places in the region but what we had failed to note was that the auto and truck along with some roads were replacing these pack stock and they were no longer available. It was up to us to supply our own. So I prepared a memo for the Regional Forester in which I stated the problem and a proposed solution. After considerable discussion it was decided to establish the Remount Depot (emphatically not the Remount Station) with some hired pack stock for the 1930 season as an experiment. This experiment proved so successful that by the end of the 1930 fire season there was no question as to the maintenance of the depot as a reservoir of pack stock and other equipment as well.

The job of organizing, establishing and supervising the proposed Remount Depot was assigned to me. Tentative objectives for the new organization were set up about as follows:

To provide reservoir of experienced packers and pack animals for fire emergency and other uses.

To supply saddle horses and pack mules of a satisfactory type to the forests.

To develop adequate types of equipment for transporting pack stock on highways and roads.

To serve as a training base for packers.

To develop improved methods of packing and standardize packing practices on the forests.

Others, such as the organization and training of Plow Units as carried on in 1931 and 1932, were added from time to time.

The first major problem that we had to solve was to secure a suitable location for the proposed Remount. In general, what we wanted was a sizable stock ranch, centrally located in the region and also near to both railroad and highway transportation facilities. Glen Smith and I spent considerable time looking over ranch units near Plains, Hot Springs, Dixon, Arlee, Superior and other places. Finally, Charley Simpson called our attention to the old Allen ranch located on the Nine Mile and owned by Ralph Scheffer of Huson. On a number of occasions the Lolo had wintered their pack stock at this place and found it satisfactory for the purpose. It consisted of a full section of land and there was a considerable area of usual range land of a sort adjacent to it. From standpoint of supervision from the Regional Office the location was almost ideal. It was fenced, there was some usable buildings, and it would produce about 100 tons of hay. The owner was agreeable to a lease arrangement which was favorable to our necessities. So we rented it effective July 1, 1930, and actually took possession on June 10. Jack Jost went out and supervised the workers until Charley Butler arrived to take over as Superintendent sometime after the first of July.

We hired ten strings of pack horses the first of July. Most of them came from up around Polson and Big Arm and nearly all the owners and packers had worked for the Forest Service at some time or other. Ern Hoyt of Big Arm, who has worked for the Remount nearly ever since, had two strings and packed one of them himself. We bought several "rocking-chair" horses from him that year. One of them, Snap, a black saddle horse, was a stand-by of the Remount for years. Bill Bell was leading his show string with him as late as 1942. Our facilities for handling stock at the new depot were necessarily of the crudest type. We had two trucks with make-shift bodies for hauling five head of horses in each and the loading chute was a rough slanting platform with a pole on each side to serve as a sheer boom to guide the animal up into the truck. In spite of the lack of equipment all of the strings were loaded out in short order when needed. On one occasion the boys had a string rolling on the road within nineteen minutes after the order was received over the telephone. By the first of August all the first ten strings were out on fires and we were hiring other strings right and left.

During the season I had been buying a saddle horse here and there and Ashley Roche had bought a carload of mules for us over on the Okanogan. I went over to Harlem and bought a carload of mules from John Survant early in September. Then we decided to have a field day for the packers in the region. The idea was to get together representative packers and rangers from each forest so that they could exchange ideas and we could determine standardized ways of doing things. It had long been evident that most of the packers in the region were self-educated and each had his own way of cargoing and hanging loads on the saddle. The field day was well attended and much good came about through the exchange of ideas. Everyone present learned something new. We also received a lot of worthwhile suggestions in regards to the organization and operation of the Remount Depot. Not many supervisors and rangers were sold on the idea and we had to do missionary work with them as well.

Along about this time the idea of having a central place for wintering all the stock in the region came into the picture. There were several reasons for this plan also. It would serve as a distributing point for assigning new animals to the forests. It would lower the average per head cost for the season since in place of each forest making arrangements for wintering with as many different owners it would all be done in one unit. The Flathead and Blackfoot and Kootenai had

been wintering with Bud Bruns in the Big Draw for several years. The Remount now took over this contract and the management of the wintering since the Remount stock were to be wintered there also.

At the time we were looking for a site for the Remount Depot, considerable time had been spent looking over the ranches located in Ferry Basin near Perma. It was Glen's and my conclusion that this was the ideal area for our project but at that time it appeared impossible to put it together in a satisfactory manner. This area had long been the favorite wintering ground for the Indians' stock and several oldtimers had told us that it was a natural because of the uniformly easy winter conditions. In view of the work that was done at Nine Mile by the CCC it is to be regretted that we could not have done this development work at the present winter range.

During the winter of 1929-30, the new project came in for a lot of planning. Everybody from the Regional Forester down had ideas, and how. We were going to put all foresters on saddle horses so we needed a lot of good saddle horses. I made an exploratory trip to Miles City and with Alva Simpson looked over the horse situation around there. Later on Alva purchased 87 head and shipped them to us. He was not a very good horse buyer and we had to take the consequences but it was not too bad. I also made a visit to the Army Remount at Fort Robinson, Nebraska, and talked horse to Colonel Williams and others. Major Kelley had the idea that the Decker packsaddle was not all that it should be and he set up a special project to demonstrate the use of the aparejo for packing. So, I had to scour the country and find a couple of oldtimers who knew something about them. Mackey Williams from Grangeville was qualified and hired along with another man whose name I do not remember. We rounded up 16 aparejos and matched them up with some likely mules and got them ready for work. This outfit went out to the Clearwater and packed out of Cedar Creek near Superior for several weeks. It was apparent that the aparejo could not compete with the Decker any more than a 1916 Ford can compete with a Mercury. The Major came by where they were working one day and sent them home. That was the last we heard of aparejos.

During the winter, Butler was relieved of the assignment to the Remount and Jesse L. Williams (Jake), was transferred from the Nezperce to assist me with the project. This was about the best break the outfit could have got. Jake knew packing and packers from ears to hocks and no fooling. His coming coincided with the aparejo project, the breaking out of the Miles City horses and the working of eight or ten strings of new mules. We had pre-fire-season packing jobs all over the region to do and were we busy. It was rodeo time in a big way at the Bruns ranch during spring roundup in May and June.

Then there was the burro business. It had been decided to import a number of burros from the Southwest and use them as pack animals for trail maintenance and fire mapping crews. Several carloads were shipped in from Region Three and distributed to the western forests. The trouble was we should have brought in some Mexicans to pack the burros. Our northern men just could not become burro-minded and so after a couple seasons of trial the burros gradually passed out of the picture. Some of the boys had a lot of fun and some otherwise. But we had to find out if they could be used and the only way was to try them.

Also in 1931 we were going in for plow units in a big way and Hugh Redding was assigned to the Remount in charge of organization and training of the two plow units set up for region-wide use. A special truck and trailer had to be designed to carry the plow unit crew of five men, plow horses, saddle horses and equipment. These units later on proved their worth in no uncertain manner as they made a lot of fires and easily demonstrated the value of an organized and trained crew of this type for building fire line. It is surprising that they have been allowed to pass almost completely out of the fire scheme.

The Remount Depot strings had a busy fire season and were sent all over the region. We also hired a large number of private strings and used them too. Yellowstone Park had a series of bad fires and called on us for help. At 4 P.M. one afternoon they called for five strings of mules and at noon the next day the mules were being loaded with fire outfits on the shore of Yellowstone Lake in the Park. How did we do it? We did not have enough trucks for more than two strings and the trucks were off on a trip somewhere. The only chance was to put the mules on the night passenger train which would drop them at Livingston early in the morning. I called the railroad superintendent and told him that if they wanted to save the N.P. park from burning up he had better make arrangements to haul the mules to Gardiner on the night train. In a few minutes he called back and said St. Paul had approved anything we wanted to do even if we had to haul mules on the North Coast. The company spotted three baggage cars at Huson with a special engine and the 65 head of horses and mules with equipment were loaded in them. There was also a coach for the packers. When they arrived at Gardiner the Park Service had trucks there to meet them and rolled them across the park to the fire. This outfit made a reputation for the Remount as no one over in that part of the country had ever seen any organized packing on the scale they were able to handle. Many were the humorous tales of the attempts by various dude ranch outfits to pack fire outfits on sawbuck rigging of the most primitive kind, told by the packers when they came home.

The field season wound up with the holding of another packers' field day at the Remount and this one was even more successful than the first held in 1930. Many details of the Decker saddle rigging were discussed and settled. Methods of packing various kinds of loads were demonstrated and photographed for future use for training purposes. The field day lasted from Thursday morning until Saturday evening and wound up with a rodeo that was really outstanding. A crowd of several hundred people gathered on Saturday to see the finals of the packers' contest and the rodeo. A brief history of the development of the Decker saddle with illustrations which I prepared will be found in the Regional Office library. The special mule halter originally designed by the Stonebreakers of Orofino was also adopted as the standard for the region at this meeting.

In the fall we secured the transfer of an Army Remount stallion from A. M. Moore of Kalispell to the Forest Service and on October 7 the Morgan stallion Resin was received at the depot. Approval for the initiation of a saddle horse breeding project at the Remount had been given, provided it did not cost any money to carry it on. So I rustled a free stallion from the Army and now we began to gather up from the forests a few mares of likely conformation. It had been decided to eliminate the bell mare from all pack strings so since there were quite a few of these on the western forests we now were allowed to fall heir to these old mares. Also we were able to trade some old condemned mules for a good mare here and there. By the spring of 1932 we had

25 or 30 mares collected for a harem for Resin. These mares were bred in the spring of 1932 and in 1933, 26 mares foaled 24 colts which is considered a very good breeding record. Later on the region paid big prices for pure-bred stallions and mares that never have produced saddle horses any more satisfactory for our work than these half-bred Morgan colts. Altogether I think we managed to get either three or four crops of half-bred Morgan colts before the American Saddler blitz hit the Remount. Practically all of the half-bred Morgan geldings that reached three years age are or have been working under the saddle on some forest.

In 1932 a number of things happened at the Remount. We did not have much of a fire season but all the stock was out working on blister rust or some other forest activity. The Madison Laboratory sent us several sets of boards made of different kinds of wood for Decker saddle trees and we started a record of their use. I don't know what ever did become of this project. About all I remember is that it confirmed our previous experience that cottonwood made the best trees. Then we carried on a feeding experiment with several strings we had working over on the Clearwater which resulted in some worth-while facts. Also the boys worked out on a standard type of mule specification and in connection with that job made a casting mold for fitting saddle trees which is still in use.

In the fall Jake and I went over to Miles City and arranged to buy some saddle horses from the Miles City Experiment Station. These horses were all colts raised by the station in connection with a range breeding experiment with Morgan stallions that they had been carrying on for some time. These colts eventually became some of the top saddle horses around the region. In 1933 and 1934 we secured additional colts from the same place and also the Morgan stallion Monterey used at the Remount for several years.

1933 was not much of a fire season but the Remount had nearly all the strings out on the forest doing various and sundry packing jobs. Everyone was so busy welcoming the CCC boys to the regional organization that they had little time for anything else. It was decided to put a CCC winter camp at the Remount and we had to make plans for keeping them occupied and as there were to be 600 men in the camp, the planning job was no small chore. Ed Mackay was in charge of the combined camps and they were busy with the construction of the Butler Creek irrigation ditch so we could raise more hay, the fencing of several pastures on Story Creek and some work for the Lolo Forest.

In July 1934, it was decided to purchase the Scheffer ranch which was under lease and then to go ahead with the construction of a complete set of new buildings. Work on the new construction began early in November and continued until in April. The CCC boys then left for the summer range and work was suspended until fall.

In May 1935, the supervision of the Remount was turned over to P&S and my active interest in the project ceased.

J. A. FITZWATER
Chief, Division of State Forestry
Washington, D. C.

Washington, D. C.
January 12, 1943

Dear Major Kelley:

Several years ago I prepared a statement for Governor Pinchot in connection with the book he is writing on the history of the Forest Service. He wrote to quite a number of old-timers in the hope that these letters would somewhat tie together and stabilize certain incidents. I am attaching an extract from that statement which may have some material that you can use.

* * * * *

I received formal appointment as junior forester July 1908, and Hugh Calkins and I left at once for Flagstaff Arizona. We were engaged in timber survey work on the Coconino National Forest. Allison was in charge. The members of the crew were Dan Adams, John Lafaun (Lumbermen), Catkins, myself, and a couple of rangers whose names I have forgotten. We worked here about six weeks and then Allison received word that either Catkins or I was to report to Frank Vogel on Bear Creek, Pike National Forest, for similar work.

Vogel had started the work on the Coconino. He was a man with an excellent reputation as a timber cruiser (he cruised most of the holdings purchased by the Anaconda Copper Company) and was employed by the Forest Service to teach his method to Forest Service personnel. He was recognized as an outstanding man in his line but apparently was pretty harsh with his crew. Under the circumstances neither Catkins nor I was particularly anxious to leave the Coconino so we tossed a coin and I lost. I reported to Vogel about the first of September. The men in the crew were Sobey, Bunker (rangers), Coolidge, Strech, Martin and Linscott. Barney was the cook and York the packer. We had a string of ten burros. I found Vogel to be a hard taskmaster but an excellent teacher and I decided that one could well afford to put up with a lot of difficulties in order to have the benefit of working with him. I have always had the greatest respect for Vogel. We were all pretty much youngsters in the party and he no doubt did us a lot of good. I still see him occasionally when he comes to Washington since he never fails to look in on me.

Vogel resigned about the first of October, and I was put in charge of the party. At about this time I was also notified that upon completion of the job I was to prepare a management plan report for the area covered. This latter job rather put me on the spot, since I had not seen but about half of the area. The work finished up November 1, and I then got a horse and attempted to go back over the country with which I was not familiar. The snow was deep by this time and I had what seemed to me then pretty tough sledding, floundering around in snow belly-deep on the horse, but I got over most of the area. Upon completion of the plan I reported to the new district headquarters of Region 1 at Missoula, Montana, arriving just about two weeks before Christmas.

I worked out of the Missoula district office on timber assignments to various National Forest until July 1909, when I was sent to the Absaroka National Forest as deputy supervisor. I entered the Forest Service at a salary of \$1,000 and had had no promotion to date. I was really sent to Absaroka to start off the boundary work and I always felt that the title of deputy was merely given to me in lieu of a pay increase - promotions were rare in those days, money was scarce.

When I stepped off the train at Livingston, Gifford V. Lantry, the supervisor, met me. Lantry was a very picturesque man of the old cowman type. I had never met him before but he greeted me, "Hello, Fitz, how are you?" Just as I reached the platform my hat blew off and I started after it. Lantry said, "Wait a minute. Don't chase that hat. Just stand still and another one will be along in a minute." Livingston has the reputation of being one of the windiest places out-of-doors. The supervisor and I had lunch together and he told me that he had two propositions to suggest to me. Either I would handle the office and he would take over the boundary work, or he would run the office and I would do the boundary work. I appreciated, of course, that he was merely trying to give me a cordial welcome and had really no intention of allowing me to make any such momentous decision. Lantry was of the old school and did business in a far different manner than it is done today. But with all his unorthodox procedures was much respected and a good boss.

I had a boundary crew on the Absaroka made up of rangers and guards Harry Coffman, Shoemaker, Ora B. Yates, Hank somebody, and, Tack Crank. We started our work from the junction point of the southeast corner of the south division of the Absaroka, and the Beartooth and the Yellowstone National Park and worked counter-clock-wise around to the southwest corner of the south division. The crew all had horses and the first two days there was lots of grief. All of these boys had on riding boots and believed that any place you couldn't take a horse wasn't a place where anyone should go. We struck lots of country where a horse simply could not hold his footing, and as a result those high-heeled boots caused much grief but the boundary had to be run and we could not change the topography, so run it we did on run-over boots. In connection with the running of the boundary we surveyed all June 11 claims pending on streams which cut the boundary, dropping boundary work temporarily until we could complete the June 11 surveys in each drainage.

During the progress of the work Bob Stuart came down from Missoula on an inspection trip and brought Mrs. Stuart with him. We traveled with a buckboard where we could and then used the same team for riding purposes when the terrain became too rough. Mrs. Stuart stopped at ranch houses. The day I was to drive the Stuarts to Big Timber to catch the train turned out very stormy and we holed up at a little hot-springs resort on the east branch of the Boulder River. It was a terrible day half snow and half rain. Growing rather restive in the afternoon, I decided to go fishing. It was very cold and after wading the stream for about half an hour with no luck whatsoever with flies I was about ready to quit when I discovered a grasshopper crawling slowly along in the grass. He was so numb with the cold he could barely move. I put him on and cast just below a big boulder. I got action immediately and landed a 16-inch cut-throat trout. In the next hour I collected a beautiful mess of trout. It was slow, tedious work and the grasshoppers hard to find, but it was no trick to get fish when once you found the hopper.

Late in October after the south division had been completed, Lantry received a telegram telling him to have me report at once in Missoula for an important assignment. Lantry and I had made what we thought were some rather comprehensive plans for timber sale work to be done that fall and winter and neither of us warmed up much to the idea of my leaving. Lantry, therefore, prepared a telegram telling the district forester of the important work which he had lined up for me and that it would be impossible for me to report. Next day the laconic reply was received, "Refer previous instructions. Have Fitzwater report at once." I went.

When I got to Missoula I found that the job was to take a crew of rangers up on the North Fork of the Flathead, then on the Blackfoot National Forest and estimate the timber on the proposed rights-of-way of the Great Northern and Milwaukee Railroads. The job had been given to one of the lumbermen but he had resigned rather than take it. The Glacier National Park had just been or was just about to be created and these two railroad crews were having a race to see which one could file its plats of survey first and thereby be granted a franchise. The railroad was to run from Columbia Falls to the Canadian line. My job was to get an estimate of the timber which would be removed in clearing the right-of-way. Mr. Haines (Roscoe Haines' father) was supervisor of the Blackfoot, with headquarters at Kalispell, Montana. My crew was made up of C. N. Whitney (now in Products in the Northern Rocky Mountain Experiment Station), Rangers Theo Christianson, Dad Reynolds, E. Clark and John Rice. Winter had set in before we got on the job, and it was pretty tough pickings. To complicate matters, apparently when one of the railroad survey crews got behind, it hopped over on to the other crew's right-of-way and used it until it caught up and then jumped off into the brush again. This made it almost impossible to follow the two separate survey lines. Sometimes the lines would end abruptly and then pick up again 200 yards away. Only too often the blueprints gave an entirely different picture from what we actually found on the ground. The snow got pretty deep and travel was difficult, especially along the west side of the river above Coal Creek where steep shale banks ran down to the river almost perpendicularly - we slid into the river frequently.

We had a fellow by the name of Joe Crosly, a half-breed Indian, as cook and packer. While Joe was an excellent cook, he was one of the dirtiest cooks I have ever encountered and one was never just sure what he was eating. He was a picturesque fellow - always wore a red sash for a belt. I can see him yet backed up to the camp fire with his face lifted to the stars, reciting "The Wreck of the Julie Plant." Ranger Christianson had a station about half-way up the river and had three or four very fat horses in his pasture. Our pack string was rather ragged and we were constantly urging Christianson to let us use his horses, but to no avail. Those horses to him were something sacred, and were to be gazed upon in all their rotund beauty rather than used. One frosty morning while we were packing up under the twinkling stars, Joe Crosly appeared on the scene and said that our horses had disappeared. He had looked everywhere for them but could find not a trace. Christianson had had official business calling him to Kalispell so Joe proposed that we use his horses. I did not like to do this without Christianson's permission, but camp had to be moved, so we rounded them up. The rest of the crew went out on line and I stayed with Joe that morning to see that the moving of camp got under way. The new camp site was on the other side of the river. We put five 50-pound sacks of flour on one of Christianson's horses and lashed it down good and tight. When in the middle of the river something came loose and this horse started to kick. As a matter of fact, these horses were so fat it was almost impossible to cinch a pack on them. In kicking, the horse caught the back of his shoe in one of the sacks of flour and in

just a few minutes the whole river was white. The flour spread out just like oil. By the time that horse got through kicking and unloading, the flour was gone. To add to the difficulties the river was full of slush ice. Well, the move was made and Theo got his horses back without injury, but he never forgave us.

Upon completion of this job I was sent to the Kaniksu to make a topographic map of the famous Section 26 in the lower West Branch River. The snow was between six and eight feet deep, and, of course, all work had to be done on snow shoes. It was the first time I had ever had webs on, and the first few days my antics were anything but graceful. Incidentally, I made a five-foot contour interval map of this section with an aneroid barometer - some stunt on eight feet of snow. Notwithstanding, I think I made a pretty good map. Anyway, it was reproduced in Colonel Graves' "Principles of Handling Woodlands."

Using the contours as a basis, we located the higher elevations of the section on the map and then went in the field and picked up these locations and established the boundaries to solid blocks of timber to be reserved for seeding purposes. The balance of the section was cut clean and the slash piled and burned. I have always regretted that it was not possible to carry to completion this proposed method of treatment, but before the cutting of the section was completed the land was classified as agricultural; eventually the balance of the timber on the blocks was removed. To my knowledge this section has burned over three times since then and the men who filed on the land have never even made an approach to a decent living. Much of this section ran 100,000 feet of white pine timber per acre.

In the spring of 1910 I was sent to the Superior National Forest as acting supervisor. I arrived about April 12 and three days later a fire was reported on Birch Lake. Leslie Brownell, one of the rangers with headquarters at Ely, was in the office at the time. I said, "Well, we better get some tools and a crew together and go fight it." A logical place to look for lumberjacks at that time was in the saloons, and there I recruited my crew. We got about twenty men, and after purchasing supplies and tools I had the whole outfit loaded onto a big buckboard. I had assumed that Brownell would take the crew but when it was about time to leave he said, "Mr. Fitzwater, I think you had better take this crew out because, frankly, I never have fought a fire in my life." I said, "Oh, is that so? Well, that being the case probably I had." Incidentally, I had never fought a fire either, but I didn't dare tell him that. I, of course, had some idea how to go about it, but I sure lacked experience. Anyway, we got the fire and I think I learned fast. I can say without any restraint that by the 15th of November when a snowstorm put out our last fire, I knew something about fire fighting.

My stay on the Superior from 1910 to 1912 inclusive was, I believe, my most enjoyable Forest Service assignment. I had spent much time during my boyhood days with a canoe and therefore felt very much at home on the Superior. We had no roads and, therefore, no means of communication over the forest other than by water. We used canoes during the summer and toboggans and snowshoes over practically the same routes in the winter. There was much winter work to be done, since there were large numbers of timber and stone claims which the Land Office insisted we examine. These claims were very often-located well back in the interior. There really was no possibility of settlement and an estimate of the timber which was required really had little bearing as to whether or not the claims would go to patent. We endeavored to

hold the examination of these claims until we had accumulated a group in the same general locality and would then make a winter expedition to clean them up. The Superior at this time was a veritable wilderness teeming with game, fur bearers and fish. The portages had not been cut out for years and in most instances were almost impossible to find. I would go out with a ranger for six or eight weeks at a time and see no sign of another human being. While we had some timber sale business with the St. Croix Lumber Company and the Swallow and Hopkins Lumber Company, most of the timber was still relatively inaccessible. Our principal job was getting acquainted with the forest, discovering and opening up canoe routes, fighting fire and examining claims. Fire fighting under the conditions existing was extremely difficult. Ordinarily, lightning was our principal source of fire, but during the 1910 season man-caused fires gained much headway to the south and ran north into the forest. Most of the lumberjacks we had to use for fire fighters could not swim, which was not too good, since all of our transportation had to be by canoe. Furthermore, all lumberjacks wore heavily calked boots and were extremely clumsy in a canoe. Many amusing accidents happened, but fortunately we had no drownings.

In the fall of 1912 the Superior Forest was transferred from Region One to Region Two, and just before the transfer I was offered the position of Supervisor on the Pend Oreille in Idaho. I accepted, and reported to Sandpoint, Idaho, October 12. I was on the Pend Oreille from 1912 to 1919, a rather long assignment for a forest officer in one location. This was during the period when extreme pressure was being brought to open up the National Forests for agricultural settlement, and the Pend Oreille was one of the hot beds. In order to prevent wholesale eliminations by ranger districts, suspended listing came into being. Although this procedure somewhat reduced the pressure and no doubt saved much National Forest land, it also put local forest officers on the spot, for just as soon as a claimant was recognized under suspending listing, he brought all the pressure possible to have the land listed. I recall distinctly two very persistent claimants by the names of McGinnis and Heideman respectively who had adjacent claims on Meadow Creek. These two gentlemen made my official life miserable. I managed to hang on to the land and eventually had the satisfaction of seeing the timber cut with the receipts going into the U. S. Treasury and of then personally classifying the remaining agricultural land. Both of these men had 160 acres suspended listing but the final classification gave them about 40 acres each. It has always been no small measure of satisfaction to me that I sold myself to Mr. Heideman and I believe convinced him that I was entirely sincere and was trying to play the game fairly with him.

I was married one year after going to Sandpoint, and two of my youngsters were born there. Somehow Sandpoint has always been home to me, and the friends and associations I made there have always seemed a little closer to me than any other place I have been stationed. The only break during this seven-year period was an assignment to Haugan, Montana, at the Savenac Nursery during the winter of 1917-18 when I had charge of a rangers' school for a period of three months. We had some fifteen men attending the school. Some of the rangers whose names I remember were Wholen, Harris, Rush, Crossley, Haun, Hodgins and Van Dyke. We did all of our outdoor work - surveying, mapping, estimating and timber marking - on snowshoes, since we had a good timber sale business and there was opportunity for some real timber management. We also had cattle and enough transient sheep to make things interesting. Slash disposal was a big issue and the principal bone of contention between the Forest Service and timber sale purchasers. It was here on the Pend Oreille that cooperative slash disposal was developed, and until this

procedure was inaugurated we experienced but little success in proper slash disposal in the western white pine type. Frankly, I feel I made some contribution to western white pine silviculture.

In the spring of 1919 I was transferred to the district office at Missoula, Montana, as Assistant Chief of the Branch of Silviculture. John F. Preston was Chief. In leaving Sandpoint I was advised to sell my house and assured I would not return there again, that my next move would probably be to some other forest. Soon after my arrival in Missoula, the extreme fire season of 1919 broke and I saw little of the Missoula office until late that fall. Preston and I sat on opposite sides of the desk and by the time we got back into the office in the fall the desk was piled so high with paper work that we could barely see each other. One day just about the time we really began to see a little light in cleaning up the job before us, R. H. Rutledge, then district forester, came in the office and suggested that I go on an elk hunt with him in the vicinity of Cottonwood Creek on the Blackfoot River. Needless to say, I wanted to go, but I did not see how I could leave at that time with the work we still had ahead of us. R. H., however, said that he thought I would lose little by taking this vacation, and Preston finally voiced the opinion that I should go. I told Preston that if I did go I would promise to be back in not more than ten days.

The trip proved rather eventful. When we established our camp no snow was yet on the ground, but shortly afterward it began falling and snowed incessantly. I got my elk the fifth day out. R. H. shot a big bull but did not get him, although we followed him for the better part of one day, a new snow finally obliterating the tracks. R.H. was insistent that he get his elk and we moved our camp further back into the high country. I shot my elk on top of a ridge at about 9,000 feet elevation where a band was crossing from the South Fork of Flathead River drainage into the Cottonwood drainage, and after dressing and quartering hung it up on some alpine fir saplings.

The snow continued. R. H. did not get his elk, and when we finally decided to pull out we found the snow was too deep to bring horses in to the meat and we had to go down to the valley, get snowshoes, and break a trail back. We made a toboggan by stretching the hide of the elk over a couple of the thawed-out alpine fir poles, loaded the meat on the toboggan, and in this manner snaked the meat back to our base camp. The snow had become so deep that when we reached the meat we found it cleared the snow by only about twelve inches. This made the meat rather accessible, and a family of martens had moved in and burrowed into the snow just under it. By standing up on their hind legs they could just reach the meat, and they had done a good job of feasting. The next morning when it grew light at the base camp we found that the martens had trailed the toboggan all the way to camp and had again dug in. I could not tell exactly how many of the animals there were, but I would say at least a half dozen.

Well, before daylight we broke camp and wrapped the entire outfit in the tent and using it as a tail drag, hitched it on the back of the toboggan and started down the ridge for the valley. That was a memorable trip. I never worked so hard in my life. It was relatively easy going on the down grade, but on the level and up grades coming out of saddles we had to double-turn our load. Darkness caught us before we got out of the mountains and we had to cache our outfit for the night. Next day we got the packer to go up with us and get the meat, since the snow at this elevation was not nearly so deep. When we got back to Missoula we had been out just twenty-

three days, and was my face red when I faced Preston. I should add here, however, that this is the only time during my official career when I used my full annual leave.

My work in Missoula was very enjoyable, but I was hardly there long enough to get the feel of things. In the spring of 1920, a number of combinations of forests were made and the Pend Oreille and Kaniksu were thrown together, and I was sent back to Sandpoint as district forester inspector in charge of both forests. I remained in this assignment until the spring of 1921, when the units were again split and I was transferred to Newport as supervisor of the Kaniksu Forest. Shortly after making this transfer, I was offered the position as Assistant Chief of the Branch of Silviculture in Region Four, with headquarters at Ogden, Utah, and decided to accept. Before I got away, however, a very bad fire season broke loose and Regional Forester Morrell requested that I postpone my transfer until after the fire season. I reported to Ogden, October 1, 1924.

A. E. FLY
Principal Forest Guard
Flathead National Forest
(Retired 1942)

Route 1
Whitefish, Montana
March 7, 1944

A PACKING TRIP

We brought the pack stock in that spring, and the first job was to pack in a lookout house and towers for Johnson Peak and a tower for Miller Mountain.

Both strings were green at packing lumber. Frank Lykins had a Remount string that had never packed lumber. So we loaded up the two strings after some trouble.

Some of the mules were packed tandem with heavy plank 14 feet long. I got my string loaded and tied up, then we started to pack Frank's string and the trouble started. After about two hours we got them loaded and strung them out, and they all started to raise hell. Some of them broke loose and run into my string, and that started the works. My saddle horse broke loose and started for the station five miles away. He and the bell mare outran the mules and tore the pack off the bell mare. I got the mules then and tied them, and went to help Frank get his lined up again. So we tied them wherever we caught them, and there were mules and lumber strung all over the woods.

Then I started after the two that went to the station. When I got back Frank was gone, but most of the string was still there, tied as we had left them.

Then a telephone call came in that one of the trail crew, who was working a trail about three miles away from where we were camped, had cut his foot and needed help, so I let the cook take my saddle horse and go after him while I got my outfit together and unloaded them. It was about five in the evening.

I brought what I could find of Frank's outfit back and got the packs and rigging off of them, and about dark Frank came in with three head. They had run up the trail towards the lookout about two miles before he got up to them. So he took them on up to the lookout and unloaded. Frank always roasted me because he got to the lookout with three and I never got there that day.

That was the end of the trouble. The mules were pretty tame the next morning. One pleasant thing about it all was, Frank was always smiling - he never got mad.

AN EXPERIENCE ON A FIRE

In the summer of 1940 I left the Star Meadow Ranger Station for Fox's farm, a smokechaser's camp on Good Creek, and when I got there, there were orders from the ranger to go into Bowen

Meadows and bring out a trail camp. On the road back there was a terrific electrical storm which started several fires. As I got to camp and unloaded, two of the boys were going to a fire about two miles from there. I knew I would be called back to Star Meadows, so I kept the stock close in. I let them roll, and watered and fed them their grain, and the call came about [?] p.m. I saddled them up, and when I went to get my saddle it was gone. One of the boys who went to the fire had taken it. I had to go about two miles after it, so it made me pretty late in starting.

I got through the pass all right, then found the trails were all on fire ahead of me, so I turned back around the foot of Mount Sweeney, which was several miles farther, and it was about 1 p.m. before I got into the station. I loaded up with tools and breakfast for 300 men and went into a fire camp on Bill Creek on the east side of the fire. Got there just at daylight. The fire was raging not very far away, and I didn't hang around very long; got the stock out of there. When I got into the ranger station there were two Remount strings in that had made 200 miles or better while I was making 30. They loaded up and went into camp, and about the time they got back word had come the camp had burned. So I did not have to go out any more that day.



Holland Peak Lookout, Flathead National Forest, 1921.



Silver's Ranger Station, Nez Perce National Forest, 1925.

**JOSEPH B. HALM
Cadastral Engineer
Engineering, R. O.**

Missoula, Montana
April 1, 1944

**SOME OF THE HIGHLIGHTS OF MY CAREER IN THE FOREST SERVICE
By Joe Halm**

After graduating from the Forest School at Washington State College in June 1909, I accepted a position under Supervisor W. G. Weigle on the Coeur d'Alene to do boundary survey work. I was assigned to work under Ranger Edward Pulaski at Wallace, Idaho.

Strong, active, full of enthusiasm, broke but happy, I reported for my first job in the Forest Service. I recall my entire field wardrobe consisted of a cheap cloth summer hat, a silk dress shirt, khaki pants, and a good pair of "Bass" shoes, a size too small. I must have presented a most bedraggled, pitiful, but amusing sight. Little wonder the miners stared at me as Pulaski and I entered Burke, Idaho one rainy day in June. My hat had become a shapeless rag, my wet, transparent shirt stuck to my skin, I had no jacket and I limped badly from those never to be forgotten boots. I am sure Ranger Pulaski didn't think highly of his raw recruit in those first days, but I carried his pack, tried not to show my discomfort, and in a short time won him over.

Our pack consisted of two blankets, bread, and a little bacon, coffee, onions, and a few dishes; no milk, butter, or sugar. We each carried a small ax, maps and notebooks.

I recall early one morning, going along a ridge near Big Creek on the present St. Joe National Forest, my eyes were nearly swollen shut, the result of recent mosquito bites. I was in the lead trying to follow down the main ridge. Every little while Pulaski would suggest that the trail was to the right or to the left. I could see no trail, and green as I was, I couldn't figure in my mind how he knew where that ridge went. He kept saying, "There the blazes are, over there." It dawned on me after a while in my prairie-trained mind that those barked places on the trees were blazes and so gradually through his patient tutoring I learned something of the ways of the woods.

It was on this trip that I first met Rutledge Parker now State Forester of Montana. Having completed our assigned portion of the boundary survey, we were headed back toward Wallace over an old little-used 30-mile trail. Mr. Pulaski said, "We should be meeting up with Rutledge about here." I knew Mr. Parker was running the eastern forest boundary and that we were supposed to meet him, but how or where, I did not know.

Hardly had Mr. Pulaski spoken when, as if by magic, out of the heavy timber and underbrush, popped a man with a compass and small pack. He was somewhat scratched and torn. Neither Mr. Parker nor Mr. Pulaski appeared surprised; to me this meeting was a miracle. What impressed me most at that time was how Mr. Parker or anyone else could ever find his way about alone in that vast, trailless uninhabited wilderness, and after days, time himself to meet us at this

particular uncharted spot. I doubted then if I could ever qualify as a ranger or be able to perform such a feat.

In July after the boundary survey was completed, I was assigned to fire patrol duty between Mullan, Idaho and Lookout Pass. Lookout is on the state line between Montana and Idaho. My camp was near Dorsey, a side track and water tank along the N. P. railroad switchbacking to the summit. When my train had puffed away around the mountain out of sight, leaving me standing alone at the Dorsey water tank, I sat down on my pile of equipment, confused in mind, bewildered. Was this what I had studied so hard to achieve? Was this my goal - Forestry? Well, I had set out to do a job and I would see it through. I found my camp site and made camp near a spring along the old Mullan road.

This was to be a busy summer for me with my scaling, patrolling, small fires, trips to my lookout and packing supplies. My instructions were to patrol the twelve miles of railroad on foot after each of the two daily passenger trains (this, of course, was impossible), and as often as possible to go to my lookout, Stevens Peak, a five-mile climb up a sawtooth ridge to the peak, a bare unimproved lookout. I did manage to make this trip once a week. I had a stull sale near my camp, the Gustafson sale which required a portion of my time.

From Stevens Peak I discovered only two fires that summer. One day upon reaching the peak, I saw a huge smoke rising just over the next ridge as I thought near Burke, Idaho. I dashed down to the nearest telephone nine miles distant and excitedly reported my discovery to Supervisor Weigle. Mr. Weigle questioned me closely as to just where this fire was. It turned out to be a large fire on the Cabinet National Forest in Montana, over twenty-five miles away. I later found that crews had been fighting this fire for a week before I saw it. The second fire also deceived me. It proved to be on the headwaters of the St. Joe River, many miles distant, and had been burning since early summer. If rated as a lookout on standards of today, I would most surely have rated 0.

One day Mr. Weigle sent me to assist a Mr. Brown in looking up a miner working in the Big Elk, a prospect several miles from my camp. We went in to the canyon where the mine was supposed to be located. The mountains here were honeycombed with tunnels and abandoned prospects. We arrived at what we took to be the Big Elk and with lighted candles entered. The place did not appear to have been worked recently but it was the most likely looking place we had found so we went in several hundred feet until we came to a cave-in, this couldn't be the place, but having gone this far, decided to explore farther. We scrambled over the cave-in and wading through slime and muck, kept on until suddenly I felt a timber strike my shoulder. I had fallen against the side of the tunnel. This startled me. I could hear my heart pounding in my ears. Brown, my companion, was staggering and fell to his knees, he shouted, "After dark, we've got to get out of here, look at those candles." Only a tiny glow remained. We staggered back down the tunnel and out. Another few seconds and we both would have perished in that gas-filled tunnel and it might have been days before we would have been discovered. We found our man later, but not in that tunnel.

After the fire season of 1909, I was sent to the St. Joe Ranger Station near Grand Forks, where we cleared ground and built a large house for drying and extracting white pine seed. The lumber

for the cone house was salvaged from abandoned camp buildings along the nearly constructed C.M. & P.S. Ry. Much of our materials in those days was salvage.

Our crew consisted of five men, Ed Holcomb, Sam Milsap, Gus Yeager, John Long and myself. We batched in the lean-to of the cone house. Cones were plentiful that fall. The 110-year old clear stand of white pine yielded a splendid crop. We robbed the squirrel caches and got as high as fifty bushels of cones from a single cache. I can to this day see those disgusted squirrels with their pitch smeared whiskered faces scolding at us as we plundered their caches. How they must have sworn in their squirrel language as those big hulks robbed them of their hard-earned winter storehouses.

We made several hundred trays of lath, 48 inches square, with door screen for bottoms. These trays were hung between four chains suspended from the ceiling by block and tackle. As the trays were filled they were hung between the four chains by four nails protruding from the corners of the trays. The trays were placed, one above the other, about six inches apart, and hoisted as fast as they were filled, then more trays were added below until the tier extended to the ceiling. The cone house was large and at last it was filled with column after column of chain suspended trays. Two large four-foot box stoves were installed at the ends of the building and were fired day and night from the many cords of wood which we had previously cut. With heat, the cones rapidly dried and in due time we threshed them with flails made of long green willows. Threshing was a tedious job. It was here that I built a hand-power fanning mill of salvaged material and although crude, this machine proved quite satisfactory. I believe we extracted around 1200 pounds of white pine seed that fall.

Equipment was scarce and in clearing land at the ranger station we found removing stumps without powder an arduous task. I built a capstan using salvaged lumber and cable. This machine with the aid of Ranger Kotkie's small team made the work easier and much faster.

The bore of the Taft tunnel on the new Milwaukee railroad through the Bitterroot Mountains was nearing completion. Grand Forks (now Falcon) was a wild mushroom construction town on the Idaho side. The main section of the town had no streets. It was built in the form of a hollow rectangle around a sort of court. Both sides and ends of this court were almost solid with rough lumber and log buildings. During the mornings the court was deserted except for a few sobering stragglers sitting on empty beer kegs piled in front of the twelve or fifteen saloons some of these saloons also served as eating places and one or two had store annexes. Behind the saloons, scattered all around through the woods were nondescript assortments of tents and shacks which served as dwellings for all the town's population.

Toward evening the town would begin to show signs of life and as night came on gas and oil lamps began to glow, player pianos began their tinny din, an orchestra here and there began to tune up. Women daubed with rouge came from the cribs upstairs and sat at lunch counters or mingled with the ever increasing throng of gamblers and rough laborers from the camps. As the hours wore on the little town became a roaring, seething, riotous brawl of drinking, dancing, gambling and fighting humanity.

During the fall, while located at the cone camp about two miles from town, we received instructions to close all the saloons at Grand Forks and arrest the operators. Ranger Kotkie, at Supervisor Weigle's request, gave each saloon owner due notice. They paid no heed, simply laughed at him and said to do his worst. Kotkie arrived with warrants, then arrested the owners and assisted by several of us, marched them over the mountains to Taft, Montana, thence by train to Wallace, Idaho. They were duly tried in court and fined.

Upon our return to Grand Forks, we found most of the saloons still running full blast, operated by hired assistants. Warrants were again secured and these new men were taken out for trial. This went on for several weeks and we became extremely unpopular. When one saloon was closed, another sprung up next door under new management and we had it all to do over again. Finally, however, only two saloons remained one operated by a burly tough and his equally tough assistant. One day Ranger Kotkie, Mr. Holcomb and I went into this place to arrest the owner who had threatened to shoot us on sight. Mr. Kotkie stepped up to the bar and showed his warrant and said, "Mr. Blank, I am sorry, I will have to arrest you." The man replied, "The hell you say, you can't take me." Kotkie who spoke slightly broken German answered, "Vell, I can try, can't I?" Then he told Mr. Blank to be ready at nine o'clock next morning and we walked out.

Supervisor Weigle was notified. He rode all night on horseback from Wallace arriving at our camp early in the morning. He organized us into a posse of six, including Kotkie, Holcomb and myself. We were all armed but kept our guns concealed. At nine o'clock we walked quietly up to the saloon; no one was in sight. We went to the rear, one stayed in front and four of us went in. Only two or three men were in the room. Holcomb stood just inside the door. I took my post against the wall opposite the bar while Weigle and Kotkie stepped up to the bar and Mr. Weigle said "Are you ready to go, Mr. Blank?" The man reached under the bar, things looked bad for a moment; when he withdrew his hand he had a towel, wiped his hands and said, "I'll go just as soon as I can change my clothes." I am sure we all breathed more freely then. Mr. Weigle had also secured a warrant for the arrest of the bartender. He asked them if they would go peaceably and they said they would.

Weigle, Kotkie and the two prisoners walked over the mountains to the N.P. Railway at Taft. At Taft Weigle and Kotkie took their prisoners into the train and just after the train started, the bartender dove out of a car window and was never heard of again. The subsequent search brought out the fact that this man was a desperate character with a long prison record an escaped convict with at least one known murder to his credit.

With this final arrest the saloons disappeared and with their demise the boom town of Grand Forks faded to a few lunch counters and stores. The town burned during the great fire of 1910 and is now only history.

Much snow fell that winter in the Coeur d'Alene, as much as twelve feet on the level in the high mountains. A warm rain and chinook came, causing countless snow slides, the most destructive of which were those north of Wallace, Idaho, in the Burke Canyon. One of these came down in the outskirts of Burke and another at Mace. The former struck a boarding house killing almost the entire Pasco family and several roomers, sixteen in all, as I recall. These slides were so terrific and of such volume that they blew telephone and power lines from poles, buildings were

crushed and blown off their foundations by the air impact 600 feet from the nearest snow at the foot of the slide.

During the winter of 1910 the first Pulaski tool came into being. Supervisor Weigle requested Ed Holcomb and me to design and make a model of a shovel, axe and mattock combination tool suitable for patrolman's use.

I took a double-bitted ax and with Mr. Holcomb's help cut off one blade leaving a spike. To this spike I welded the cut-off portion of the ax blade which, when drawn out and shaped, became the mattock blade. The shovel attachment was made from an old burned-out shovel cut down. The shovel sleeve was flattened and shaped to fit over the ax head. A hole was drilled through the ax head and sleeve for a bolt with a wing nut. The model was exhibited at the supervisors' meeting in Missoula the spring of 1911 but apparently nothing was done about it at that time. The shovel attachment never was practical for obvious reasons, but years later the same ax-mattock combination with minor improvements was adopted as standard equipment and is now known as the Pulaski Tool.

Shortly after leaving the St. Joe Ranger Station I was put in charge of two timber sales on the Little North Fork of the Coeur d'Alene River. The sales had been badly managed and I was assigned the job as scaler and to try and straighten matters up.

I made my headquarters at the Camp sale at the mouth of Leiburg Creek and divided my time between this and the Thompson Brothers sale two miles up the Little North Fork.

I recall the first morning, the camp boss wanted some timber marked for cutting so we started out ahead of the crew with a lantern. It was before daylight. I had been instructed to mark all green standing merchantable timber which included white pine, Douglas fir, hemlock, larch, white fir, cedar and even sound cottonwood, leaving only an occasional white pine for seeding. We waded through two feet of snow, at last the logging boss said, "Well, here is where we begin." I promptly walked up to the nearest tree, knocked off a chip of bark and drove the heel of my stamping ax into the wood. The boss cried in a disgusted voice, "Do you mean we have to cut that?" I said, "Sure, everything I mark." He grunted and turned away. I then looked up the trunk into the increasing light. The tree I had marked was a large red fir snag, spike-topped and dead, not thirty feet high, conky and rotten to the heart. What a blunder: The boss was disgusted and showed it. We had many good laughs later over that first tree.

The two outfits had decided to attempt winter logging. The men worked from before daylight 'till after dark on those short winter days. The snow increased daily in depth, except along the broken trails. We traveled everywhere on snowshoes. The tree's were dropped into the deep snow, there was almost no breakage. They were swamped and bucked where they fell. Skidding was difficult, the horses had to break trails through the deep snow, and decking on the ice was treacherous. The decks were built far out on the river ice to await the spring break-up and drive to the mill. The bosses also tried building gravity chutes and chute logging but due to the deep snow had little success. Both camps lost heavily on their winter logging venture.

Supplies had been packed in from Cataldo, Idaho, by pack string before the heavy snows came. These supplies were brought in over the divide then up the Little North Fork through sixteen fords which became difficult and treacherous when ice began to form and the river to gorge and raise. After the packers had made their last trip for the winter, we ate what we had, corned beef, bacon, ham, dried beans and fruit and canned vegetables, bread and oleomargarine.

During the worst storms we were snowbound and spent our time reading the few worn magazines by what light filtered through the small dingy windows or played cribbage. The cards became so badly worn and dirty the spots could not be recognized. The men became restless, discontented and irritable during these times.

At our camp twenty-eight men lived and slept in one squat and dingy shake-roofed log cabin 16x28 feet with one door and two windows set horizontal in the two long side walls. The double bunks made of poles and filled with bought were double-decked and extended around the entire wall space except at the windows and door. A Sibley stove occupied the center of the room and at tight the tiers of wet musty socks and other garments dangled like a Monday wash from the ceiling around the stove pipe. The air was always putrid and vermin prospered in the bunks. A wooden water bucket and two basins near a window served for all the men, shaving was a luxury. What a scramble for socks in the morning, first come first served. Ours was not an exceptional camp for those days before regulations required more sanitation.

The spring of 1910 I was assigned the job of building telephone lines. The first line was between Taft, Montana and Avery, Idaho, via the summit of St. Paul Pass over the C.M.P.S. tunnel to Grand Forks, to St. Joe Ranger Station and down the North Fork to Avery. The crew consisted of Ed Holcomb, Harvey Fearn, Tom Robinson (acting cook), John Winnington, and myself. We also built a line from Kellog, Idaho, to Montgomery Creek Ranger Station and that fall after the great fire, we rebuilt the line between Wallace and the St. Joe Ranger Station near Grand Forks. These lines were mostly grounded lines and hung on topped trees. The trees were climbed and the tops cut out similar to spar trees on the coast but of course were not as high.

Almost my first introduction to big fires was the great fire of 1910 as described below in my article "The Big Fire" which was first published in the American Forests and Forest Life, July 1930 issue.

"The Big Fire"
by Joe B. Halm

Out of the underbrush dashed a man - grimy, breathless, hat in hand. At his heels came another. Then a whole crew, all casting fearful glances behind them.

"She's coming: The whole country's afire; Grab your stuff ranger, and let's get outa here!" gasped the leader.

This scene, on the afternoon of August 20, 1910, stands out vividly in my memory. The place was a tiny, timbered flat along a small creek in the headwaters of the St. Joe River, in Idaho. The little flat, cleared of undergrowth to accommodate our small camp, seemed dwarfed beneath the

great pines and spruce. The little stream swirled and gurgled beneath the dense growth and windfall, and feebly lent moisture to the thirsting trees along its banks.

For weeks forest rangers with crews of men had been fighting in a vain endeavor to hold in check the numerous fires which threatened the very heart of the great white-pine belt in the forests of Idaho and Montana. For days an ominous, stifling pall of smoke had hung over the valleys and mountains. Crews of men, silent and grim, worked along the encircling fire trenches. Bear, deer, elk and mountain lions stalked scary-eyed and restless through the camps, their fear of man overcome by a greater terror. Birds, bewildered, hopped about in the thickets, their song subdued, choked by the stifling smoke and oppressive heat. No rain had fallen since May. All vegetation stood crisp and brown, seared and withered by the long drought, as-if by blight. The fragrance of summer flowers had given way to the tang of dead smoke. The withered ferns and grasses were covered by a hoar-frost of gray ashes. Men, red-eyed and sore of lung, panted for a breath of untainted air. The sun rose and set beyond the pall of smoke. All nature seemed tense, unnatural and ominous.

It had taken days to slash a way through the miles of tangled wilderness to our fire, sixty-five miles from a railroad. On August 18, this fire was confined within trenches; all seemed well; a day or two more and all would have been considered safe. Difficulties in transportation developed which necessitated reducing our crew from eighty five to eighteen men.

I had just returned after guiding our remaining packers with their stock to one of our supply camps, when our demoralized crew dashed in. Incoherently, the men told how the fire had sprung up everywhere about them as they worked. The resinous smoke had become darker, the air even more oppressive and quiet. As if by magic, sparks were fanned to flames which licked the trees into one great conflagration. They had dropped their tools and fled for their lives. A great wall of fire was coming out of the northwest. Even at that moment small, charred twigs came sifting out of the ever-darkening sky. The foreman, still carrying his ax, was the last to arrive. "Looks bad," he said. Together we tried to calm the men. The cook hurried the preparation of an early supper. A slight wind now stirred the treetops overhead; a faint, distant roar was wafted to my ears. The men heard it; a sound as of heavy wind, or a distant waterfall. Three men, believing safety lay in flight, refused to stay. "We're not going to stay here and be roasted alive. We're going."

Things looked bad. Drastic steps were necessary. Supper was forgotten. I slipped into my tent and strapped on my gun. As I stepped out a red glow was already lighting the sky. The men were pointing excitedly to the north.

"She's jumped a mile across the canyon," said the foreman, who had been talking quietly to the men. Stepping before them, I carelessly touched the holster of the gun and delivered an ultimatum with outward confidence, which I by no means felt.

"Not a man leaves this camp. We'll stay by this creek and live to tell about it. I'll see you through. Every man hold out some grub, a blanket and a tool. Chuck the rest in that tent, drop the poles and bury it."

The men did not hesitate. The supplies, bedding, and equipment were dumped into the tent, the poles jerked out, and sand shoveled over it. Some ran with armloads of canned goods to the small bar in the creek, an open space scarcely thirty feet across. Frying pans, pails, and one blanket for each man were moved there. Meanwhile the wind had risen to hurricane velocity. Fire was now all around us, banners of incandescent flames licked the sky. Showers of large, flaming brands were falling everywhere. The quiet of a few minutes before had become a horrible din. The hissing, roaring flames, the terrific crashing and rending of falling timber was deafening, terrifying. Men rushed back and forth trying to help. One young giant, crazed with fear, broke and ran. I dashed after him. He came back, wild-eyed, crying, hysterical. The fire had closed in; the heat became intolerable.

All our trust and hope was in the little stream and the friendly gravel bar. Some crept beneath wet blankets, but falling snags drove them out. There was yet air over the water. Armed with buckets, we splashed back and forth in the shallow stream throwing water as high as our strength would permit, drenching the burning trees. A great tree crashed across our bar; one man went down, but came up unhurt. A few yards below, a great log jam, an acre or more in extent, the deposit of a cloud burst in years gone by became a roaring furnace, a threatening hell. If the wind changed, a single blast from this inferno would wipe us out. Our drenched clothing steamed and smoked; still the men fought. Another giant tree crashed, cutting deep into the little bar, blinding and showering us with sparks and spray. But again the men nimbly sidestepped the hideous meteoric monster.

After what seemed hours, the screaming, hissing and snapping of millions of doomed trees, and the showers of sparks and burning brands grew less. The fire gradually subsided. Words were spoken. The drenched, begrimed men became more hopeful. Some even sought tobacco in their water-soaked clothing. Another hour and we began to feel the chill of the night. The hideous, red glare of the inferno still lighted everything; trees still fell by the thousands. Wearily, the men began to drag the watersoaked blankets from the creek and dry them; some scraped places beneath the felled trees where they might crawl with their weary, tortured bodies out of reach of the falling snags. The wind subsided. Through that long night beside a man-made fire, guards sat, a wet blanket around their chilled bodies.

Dawn broke almost clear of smoke, the first in weeks. Men began to crawl stiffly out from their burrows and look about. Such a scene: The green standing forest of yesterday was gone; in its place a charred and smoking mass of melancholy wreckage. The virgin trees, as far as the eye could see, were broken or down, devoid of a single sprig of green. Miles of trees, sturdy, forest giants - were laid prone. Only the smaller trees stood stripped and broken. The great log jam still burned. Save for the minor burns and injuries, all were safe. Inwardly, I gave thanks for being alive. A big fellow, a Swede, the one who had refused to stay, slapped me on the back and handed me my gun. I had not missed it.

"You lost her in the creek last night. You save me my life," he said, simply. His lip trembled as he walked away.

The cook had already salvaged a breakfast from the trampled cache in the creek. Frying ham and steaming coffee drove away the last trace of discomfort.

"What are your plans?" asked the foreman, after several cups of coffee.

"First, we'll dig out our tent, salvage the grub, and then look the fire over. We'll order more men and equipment and hit the fire again."

Little did I know as I spoke that our fire that morning was but a dot on the blackened map of Idaho and Montana. After breakfast we picked our way through the fire to our camp of yesterday. All was safe. We moved the remaining equipment to the little bar. Our first thought was for the safety of the two packers and the pack stock at our supply camp. The foreman and I set out through the fire over the route of the old trail, now so changed and unnatural. With ever increasing apprehension we reached the first supply camp where I had left the packers. Only a charred, smoking mass of cans and equipment marked the spot.

What had become of the men? Not a sign of life could we find. They must have gone to the next supply camp. We hurried on, unmindful of the choking smoke and our burned shoes. We came upon our last supply camp; this, too, was a charred, smoldering mass. Still no signs of the men. A half mile beyond we suddenly came upon the remains of a pack saddle; then, another; the girths had been cut. Soon we found the blackened remains of a horse. Feverishly we searched farther. Next we found a riding saddle. With sinking heart we hastened on. More horses and more saddles. The fire was growing hotter. We halted, unable to go farther. We must go back for help and return when the heat had subsided.

Smoke darkened the sky; the wind had again risen to a gale; trees were once more falling all about us. We took shelter in a small cave in a rock ledge where the fire had burned itself out. Here we sat, parched, almost blind with smoke and ashes. Once the foreman voiced my thoughts: "The wind will die down toward night, then we can go back to camp." The fury of the wind, however, increased steadily. Fires roared again, and across the canyon trees fell by the hundreds.

After what seemed like hours, we crept out of our cramped quarters and retraced our steps. The storm had subsided slightly. If the remains of the trail had been littered that morning, it was completely filled now. We came to a bend in the creek where the trail passed over a sharp hogback. As we neared the top, we again came into the full fury of the wind. Unable to stand, pelted by gravel and brands and blinded by ashes, we crawled across the exposed rocky ledges. I had never before, nor have I since, faced such a gale. On the ridges and slopes every tree was now uprooted and down. We passed the grim remains of the horses and supply camps. In the darkness we worked our way back over and under the blackened, fallen trees. Fanned by the wind, the fire still burned fiercely in places. Torn and bleeding, we hurried on, hatless - in the darkness, lighted only by the myriads of fires I picking the way, the foreman watching for falling trees. While passing along a ledge a great tree tottered above us and rent its way to earth, rolling crazily down the slope. We ran for our lives, but the whirling trunk broke and lodged a few feet above. So absorbed were we with our plight that we nearly passed our camp on the little bar in the creek bottom.

By firelight we ate and related our fears as to the fate of the packers. As we talked, one of the men pointed to the eastern sky, cried, "Look, she's coming again!" The sky in the east had taken on a hideous, reddish glow which became lighter and lighter. To the nerve-racked men it looked

like another great fire bearing down upon us. Silently the men watched the phenomenon which lasted perhaps ten minutes. Then the realization came that the sky was clearing of smoke. In another brief space of time the sun shone. Not until then did I know that it was only 4 o'clock. A change in wind had shifted the smoke toward the northwest. We later found that the burn extended but a mile or two to the south of us.

Daylight next morning found us chopping and sawing a route back through the now cooled burn toward civilization, searching for our packers. That day I visited a prospector's cabin on a small side creek, a mile from the trail, to learn the fate of the man, a cripple. His earth-covered dugout by some miracle had withstood the fire. There were no signs of life about. Whether the man had gone out earlier in the week, or had suffered the same fate as our packers, I did not then know. Evening found our little party many miles from camp. We saw the remains of an elk and several deer; also, a grouse, hopping about with feet and feathers burned off - a pitiful sight. Men who quenched their thirst from small streams immediately became deathly sick. The clear, pure water running through miles of ashes had become a strong, alkaline solution, polluted by dead fish, killed by the lye. Thereafter we drank only spring water.

Late that night, weary and silent, the men returned to camp and crept into their blankets. Daylight again found us on the trail equipped with packs and food and blankets. About noon we came upon an old white horse, one of our pack string, badly singed, but very much alive, foraging in the creek.

Late one day, the sixth since the great fire, a messenger, besmudged and exhausted, reached us. From him we learned that Wallace and many other towns and villages had burned; that at least a hundred men had lost their lives and that scores were still missing. He had seen many of the dead brought in.

Our crew had been given up as lost. Several parties were still endeavoring to reach us from different points. Ranger Haines with his crew was then several miles back and would cut the trail to take us out. Our packers, he said, had reached safety. The crippled prospector was still among the missing, and we were to search for him. For three days we combed the burned mountains and creeks for the missing man. On the third afternoon, weary and discouraged, we stumbled upon the ghastly remains, burned beyond recognition. His glasses and cane, which we found near, told the mute story of the last, great struggle of the unfortunate man who, had he but known it, would have been safe in his little shack. In a blanket we bore the shapeless thing out to the relief crew.

From Ranger Haines I heard the story of our packers. Shortly after I had left them they had become alarmed. Hastily saddling the fourteen head of horses, they had left the supply camp for Iron Mountain, sixty miles away. Before a mile was covered they realized the fire was coming and that, encumbered with the slow-moving stock, escape would be impossible. They cut the girths and freed the horses, hoping they might follow. Taking a gentle little saddle mare between them, they fled for their lives, one ahead, the other holding the animal by the tail, switching her along. The fire was already roaring behind. On they ran, the panting animal pulling first one, and then the other. Hundreds of spark-set fires sprang up beside the trail; these grew into crown fires, becoming the forerunner of the great conflagration. By superhuman effort they reached the

summit on the Idaho-Montana state line. Here the fire in the sparse timber lost ground. On sped the men down the other side until the fire was left behind. Ten miles farther, completely exhausted, they reached a small cabin, where they unsaddled their jaded, faithful little horse, threw themselves into a bunk and fell asleep.

Two hours later the whinnie of the horse awoke them. A glare lighted the cabin. They rushed out; the fire was again all around them! They rescued the little horse from the already burning barn and dashed down the gulch. It was a desperate race for life. Trees falling above shot down the steep slopes and cut off their trail. The now saddleless, frightened little beast, driven by the men, jumped over and crawled beneath these logs like a dog. Two miles of this brought them to some old placer workings and safety. Exhausted, they fell. The fire swept on.

They had crossed a mountain range and covered a distance of nearly forty miles in a little over six hours, including their stay at the cabin - almost a superhuman feat:

Returning to Wallace, I learned that the outside world had suffered far more than we. Eighty-nine men had given up their lives in the great holocaust. The hospitals were overflowing with sick and injured. Hundreds had become homeless refugees.

Assigned the task of photographing the scene of the many casualties, I had an opportunity to observe the extent of the appalling disaster and to reconstruct the scene of the last, hopeless stand taken by those heroic, unselfish men who gave their lives that others might live. Still, not all those heroic efforts were hopeless or vain. Ranger Pulaski, who so valiantly saved all but six of a large crew, has become a national hero, an outstanding figure in the annals of forest history.

Forest Supervisor Weigle, who for weeks had so tirelessly worked day and night, unselfishly and alone plunged through the very face of the tempest of fire in an attempt to warn the citizens of Wallace of their danger. At last hopelessly trapped, he rushed through a burning mining mill into a tunnel. As the building fell the tunnel caved, threatening to bury him alive. Covering his head with his coat, he crawled out, plunging through the burning wreckage into a tiny creek. In a few hours he had worked his way through the fire to Wallace, there directing and assisting with the dead and injured.

Ranger Danielson, who so courageously led his little crew into an open mining cut on a mountain-side, will bear the horrible, purple scars on neck and hands to his grave, as will all those who were with him. Ranger Phillips, Watson, Vandyke, Rock, Bell, and many others saved the lives of hundreds by their cool, timely judgment. Scores of other unsung heroes still live and work among us, their fortitude a bright and lasting example.

On Big Creek, thirty men lost their lives while others lay prone for hours in the chilling waters of a tiny stream, great forest giants falling around and across them. Here three men were crushed by a falling tree. One of these unfortunates was caught only by the foot. Men a few feet away heard his cries and prayers, but were powerless to assist. He dug and fought to tear away, but the thing which he had come to save held him fast until coma and finally death relieved his sufferings. On Seltzer Creek the ghastly human toll was twenty-nine. An entire crew was annihilated. The men fell as they ran before the merciless fire.

Each scene is a gripping story of almost unparalleled heroism and sacrifice which it would take pages to recount. Our experience as compared with these was tame indeed, insignificant.

More than three decades have passed through the hour-glass of time and nature has long since reclothed the naked landscape with grass, shrubs and trees, but the great sacrifice of human life is not, and can never be, replaced or forgotten.

In those days, 1909-1912, we had a swarm of timber homesteads to check on and most of those so-called claims we knew to be fraudulent, but it was our job to get the evidence. In the Little North Fork, Marble Creek and Big Creek, we were extremely unpopular as rangers and had to use discretion and diplomacy. We never knew when a bullet might meet us in a thicket or on the trail. Most of these claims had a small cabin with shake and some with dirt roof.

One cabin, on each of our periodical visits, had a comb and looking glass outside the door; the ferns outside had been mowed down and to the casual passerby the cabin looked inhabited. The two small windows had a cloth over them so no one could look in; a heavy chain and lock secured the door but to us it was easy. We pulled the chain around, unhooked the hidden part and walked in. The interior was lighted by the cracks through the shakes overhead which were only single laid side by side and the rain and snow came straight through. The floor was natural earth and the stubs of brush left in clearing the spot were still sticking up in the middle of the cabin, as were chips made in the construction several years before. A small shake table supported by two cleats driven between the wall logs, a pile of dry boughs for a bed and a rusty tin stove comprised the complete furnishings. We would take a piece of pine wood, write our names and the date on it, put it in the rusty stove and to be sure it was always there on our return. After taking careful note of dates, etc., we would close the door, hook the chain, pull it around in place again and go our way.

Old timers will remember those places well, no clearings only the trees necessary for a 10'x12' cabin had been cut. The cabins stood almost hidden by great ferns under beautiful giant virgin white pines which were the prize sought by the timber homesteader who, except for a possible fishing trip once a year or more likely every other year, never visited these claims. Later when he tried to secure patent and was confronted by honest evidence, he often perjured himself in his endeavor to get the claim, which, if he were successful, he sold for several thousand dollars to lumber companies.

The Culp claim was outstanding in that it was the key to perhaps a hundred others in the Little North Fork of the Coeur d'Alene. Mr. Culp the year before applying for patent, moved into his cabin with his family. Few others had ever made any show of residence. There were a few who actually lived on their claims and made a showing of clearing and farming; these few claims were never protested and we never bothered them.

Mr. Culp cut a few trees and cleared a small patch of ground between the stumps about the size of a small city lot. I photographed his garden at times. Even radishes and lettuce would not mature. We watched his claim closely and when he applied for patent, Messrs. Rutledge, McGowen, Swartz, Girard, Skeels, Haines, Farmer and myself went in, made camp and made a

careful detailed final study of the claim. It was carefully mapped, timber counted, and the clearing measured. I did the mapping and the photographic work.

During the hearing on the case in Coeur d'Alene, they asked each witness just where he went each day and it so happened that in tracing our routes in our evidence each and every one had gone around a small strip of bottom land near the cabin because it had no paths into or through it and was so dense no one had ventured into it. We had, of course, looked into it from both sides of the gulch. There wasn't anything there except willow, alder, dogwood and a few dead snags. When all the testimony was in and each had shown he had not crossed this acre or two Mr. Culp was called and asked by his attorney about this particular spot and he stated that that was his meadow where he kept his cow and horses. What a blow! It was 4:00 P.M. and Mr. McGowan called for a recess, which was granted until eleven the next morning.

Charlie Farmer and I volunteered to go in there that night. We took a car to Hayden Lake. The only power boat was across the lake and would not be back until about 9:00 P.M. We finally got the boat and at 9:30 met the ranger at the upper end of the lake; he had horses and flashlights ready. We dashed off up the inky dark trail, up the mountain and over the divide. We held to the tail of our horses and ran behind, switching them at a trot, then down the other side, always on the run following the windings of the trail through the dense timber. We forded the North Fork several times and at break of day arrived at the claim. We fought through the alleged meadow back and forth, climbing over the brush which tore our clothes to shreds. Needless to say there wasn't a spot in the whole area where a cow could have laid down. After half an hour, we were again on the trail. We called our attorney, Mr. McGowan by Forest Service telephone and told him what he had expected to hear. He asked if we could make it back by eleven. We could. Then by daylight we dashed back over the trail to the lake, a round trip of 70 miles and arrived in Coeur d'Alene (105 miles round trip) at exactly eleven amid shouts of our friends. When we got our breath, we testified, begrimed and tired but happy. I recall a statement I made "I defy any one to go there and find the meadow referred to." That seemed to settle it, but this was not to be the end. The Registrar of the local Land Office said he would go in and have a look. The Registrar's statement was very simple. "I went to Mr. Culp's claim and found the meadow as described by Mr. Culp." Perjury? Yes. The Secretary of Agriculture then came west and accompanied by Mr. Rutledge, the Registrar and others made a personal investigation, and needless to say he found that the government witnesses had told the truth and he reversed the decision. This, of course, meant that all the claims protested were declared invalid.

Now that time has healed the sore spots the Forest Service stands in high esteem in all those neighborhoods.

I believe it was during the summer of 1911 that I first met Raphael Zone and R. Y. Stuart on the Little North Fork and showed them over the present "Deception Creek Experimental Forest Area." R. Y. was not a small man and when he and I slept in one of those hammock spring beds at Prichard we spent most of the night holding to the side rails to keep from piling one on the other.

It was on the Rock Creek fire near Darby on the Bitterroot. I was sent to the fire with Howard Flint. We were camped on Como Lake, the fire had been surrounded; the men were mopping up

the final bad spots about noon when two Indians came up the fire line of my sector. One I recall had real long black hair; both were husky men. They asked for a job on the fire line. I told them the boss, Mr. Flint, was doing the hiring and to go a short distance up the line and see him. Mr. Flint told them the fire was now under control and that he would not need more help as he planned to release some of the crew that evening. He invited them to have lunch, the crew had finished and there was plenty left. I recall there were at least eight cans of salmon left among other things. Those two Indians ate all that salmon, ordinarily half a can was a meal for a fire fighter. After their "light" lunch the two Indians felt pretty good; each was enjoying a donated cigarette when suddenly there was a roar, the fire flared up across the line on a steep hillside. The few men there who were having their rest period, rushed hither and thither grabbing tools and yelling for more help. The two Indians did not hesitate, before any one realized it they were fighting the fire like two maniacs and when the men arrived on the scene, those two Indians unaided and with their bare hands, had the bad spot under control. Mr. Flint arrived a few minutes later and I told him how the Indians had rushed in, grabbed burning logs and threw them back, had dashed dirt into burning trees to stop crowning and held the fire until help arrived. They had put up a desperate heroic fight. Mr. Flint simply said, "They're hired beginning noon today." Needless to say they stayed till the last men were released.

One day on the Kootenai during fire season, a packer loaded his string of mules. On Old Jerry, the outlaw mule, he put some nonbreakable items for side packs and a Sibley stove (shaped like a funnel) was tied upright as a top pack. A few forgotten items were placed inside the stove, among these were several cartons of matches. The string started with Jerry tailed last in the string. They had gone but a short distance when Jerry poised his ears, rolled his white eyes back and saw the stove towering above his pack; his head went down and he began bucking and squealing, broke his rope and plunged through the dense timber trying to shake the demon pack. A column of dense black smoke began to roll out of the top of the stove as it careened through the woods. The alarm was spread, lookouts began reporting a big fire spreading rapidly through the woods; emergency crews were called. Jerry in the meantime was running back and forth scattering black smoke skyward. The packer finally managed to capture the animal after a chase of a-mile or two. The matches confined in a tight bundle had ignited and emitted heavy black smoke through the funnel of the stove, which of course seemed to the lookouts to be coming from all parts of the woods. No harm or great damage was done except to the loss of the matches. Everyone had a good laugh after the scare was over.

Some of the boys pride themselves on being cooks. On one of the small fires, five forest officers were fighting fire, the crew and cook had not arrived. One of the boys (Wm. Morris) just out of Ann Arbor, volunteered to serve as cook. He dug into the supplies, which were rather scant, and decided on the usual bacon and potatoes, rice, bread and coffee. Being ravenously hungry himself and gauging the other appetites by his own, he selected liberal portions. For the rice he selected a large kettle and dumped in a liberal portion; it looked rather small so decided to use the entire ten pound sack. As the cooking proceeded the rice began to swell until the kettle was nearly full; not wishing to be wasteful he transferred about half the rice into a second vessel and soon this and several other available kettles were filled; he became panicky and began burying the surplus. The crew, needless to say, ate rice for several days and it was reported that the squirrels for miles around gathered that winter and fared well on the balance.

Back in 1911, as Deputy Supervisor of the Coeur d'Alene I was going from the Nelson to the Magee Ranger Station and was taking two horses over the twenty-five mile Grizzly Mountain trail. The ranger, Philip Neff had suggested that I ride one horse and lead the other but to be very careful as they could not be trusted and if released would be sure to make a dash back to Nelson. In climbing the first six miles of steep trail, I walked, leading both the saddle and the other horse. I kept my eye on the horses during the climb, looking back quite often to make sure both followed. Near the summit I mounted the saddle horse and rode along, my mind on other things, probably the expected supper at Magee. Shortly afterward, upon looking around, I was startled to find I was leading only one horse. I looked back down the trail, no horse in sight. Visions of remaking that long, steep climb turned my perspiration cold - I jumped from my horse tied the horse I was leading to a tree, remounted and dashed back down the trail, the tied horse whinnying loud protests at being abandoned. After a quarter mile dash my mind began slowly to function again. Just how many horses did I have when I started? I checked my galloping horse and laughed long and loud the joke was on me; I had forgotten I was riding the lost horse.

The following is from my article published in American Forest and Forest Life, September 1927 issue.

"One Hundred and Five Miles of Rapids"
by J. B. Halm

From the Orogrande to Isabella Creek, the turbulent waters of the North Fork find their source in the Bitterroot mountains, between Montana and Idaho, and flow southwesterly across the entire state of Idaho through Asahka to Lewiston, ten thousand feet below their source, where they join the Snake River, a tributary of the Columbia. The entire drainage of the North Fork is through rough, mountainous territory, densely timbered with pine and fir, and few, save the occasional prospector or trapper, had ventured into this wild and almost trailless region. Our survey was to be for a trail, the preliminary of a future road between the Orogrande and Asahka.

Two weeks later, Claud McQuarie, Bill Cain and I found ourselves alighting from the train at Orofino. Claud and Bill were university students, out for the summer and incidentally after field experience. Bill was an eastern lad, inexperienced in the ways of the woods but willing to learn. Claud was a good-natured western boy, keen and quick - a wonderful combination of mental and physical ability, which three years later won him a place as captain of the West Point Football team.

At Orofino, we outfitted with supplies and equipment for three months and the next day were loaded on top of our equipment behind two teams en route overland on our sixty-mile trip to the North Fork. We arrived at the old placer mining town of Pierce City, thirty miles out, just before dark. As we picked our way along the deserted street later that evening, the old log buildings, mostly vacant and crumbling to decay, which had stood since the gold rush in the early 60's, gave us a queer feeling of awe. The old Chinese cook who prepared our supper in the only hotel of the town, had come, so we were told, with the tide of gold seekers in the early days, and, like a piece of drift, had remained stranded after the tide moved on. Of the hundreds of Chinese who followed the early gold rush, he alone remained.

At dawn the next morning we were off. Sixteen miles farther on we reached the end of the wagon road. Pack horses took our outfit the remaining twelve miles down Orogrande Creek into the canyon of the North Fork to the "Bungalow," the end of the trail. The "Bungalow," located on a little bench at the confluence of Orogrande Creek and the North Fork, was merely an old log cabin with a large stone fireplace. It had, in all probability, been dubbed the "Bungalow" by some of the fishermen or hunters who had frequented this out-of-the-way place, or by the crew which had constructed the cable bridge across the river the preceding summer.

Frank Marquette, an old experienced Canadian riverman who was to act as our cook and boatman, had gone on a few days ahead to start the construction of our boat. He was overjoyed upon our arrival. He had caught several large trout which were on our menu for supper that night.

The week following was spent in felling trees, whip-sawing lumber and building an eighteen foot bateau, a boat such as rivermen use, made to stand rough water. A raft of cedar logs, six feet wide and twenty-six feet long, was also made. This raft was withed together with wild cherry and had a deck in the center built up above the logs. On this deck we lashed our cargo. Large sweeps were balanced on head-blocks on each end. This raft and boat were to be our mode of travel down the canyon.

June is always a pleasant month in the mountains, but a blaze in the old fireplace was very welcome evenings as we sat Indian fashion around the hearth swapping yarns and singing old songs to the accompaniment of Bill's ukelele.

When our survey had been extended several miles, we made our first move. I had never run a river raft before and my experience with a bateau was limited to slow water. Although those first three miles of rapids were tame compared with what we encountered later, I shall never forget the thrill of that first ride. Our boat had been carefully loaded and covered, and I was instructed to stand in the bow and paddle straight ahead. At the word from Frank, I was to paddle hard, right or left. We pushed into the current. Standing awkwardly in the bow, I felt quite useless, but paddled as best I could. At the first white water, Frank called "Right!" Before I could respond the boat lurched and I was on my knees in the bottom. The dangerous rock slipped by without touching us.

I glanced back at old Frank. His face was expressionless, as I found it always was when running rapids. With knee braced against the side of the boat, his keen eye on the spray and rocks ahead, his paddle skillfully guided the boat through to safety. I shall always feel that the safe and successful outcome of our entire trip that summer was due to the cool judgment and skillful paddle of our old boatman. We landed safely in an eddy just above Castle Rapids, as we later named them where the river roared and tumbled over gigantic boulders.

Running the raft was much simpler than the boat, as the river was still swollen and few hidden rocks were encountered. We made camp in a beautiful spot on a tiny bench above the beach. As there was no trail back, and an almost impassable canyon ahead, we were now isolated from the outside world. The fir-clad canyon with its steep and often perpendicular walls is one of scenic splendor. The beauty was unmarred by the hand of man. The river is a continuation of rapids

from one end of the canyon to the other and each bend brought forth interesting surprises. Once, rounding a bend, we came upon a herd of five elk standing in the water. They displayed very little fright and two stood at the water's edge and eyed us curiously as we slipped by less than thirty yards away.

Bill had ambitions to take a turn in the boat with Frank on our next move. On Sunday morning he climbed into the bateau and with a long line attached to the shore practiced paddling in the eddy. As he gained confidence, he released the rope and paddled about among the drift in the eddy which had a way of filling and emptying periodically.

I was startled by Frank's cry, "My God! Look at that!" We all ran for the shore shouting and gesticulating. Bill was at the outer edge of the eddy calmly paddling down stream into the channel toward the rapids. He suddenly discovered his plight, and began to back paddle with all his might. In what seemed hours, he had checked the heavy boat, and Providence with him, as it seemed always to be on that trip, the eddy began to refill and gradually with the aid of the frantic paddling, the boat was drawn back toward the new vortex of the eddy. Bill had learned a lesson. That evening he confided his fears and told us, for the first time, that he could scarcely swim a stroke.

The following day our line took us to the base of a perpendicular cliff which we named and which is now known as Castle Bluff. Finding the water along the face of the cliff too deep to wade, we went back to detour over the top. When Claud and I had climbed to the top, we sat down to wait for Bill. When he failed to appear, we called. Receiving no reply we feared something might have happened to him and climbed back to where we had left him. We found him sitting astride a scrubby little tree, some forty or fifty feet above the jagged rocks at the base of the cliff. He had slipped and lodged there, too scared to move or call he clung desperately to the friendly tree. It took us practically all that afternoon to extricate him from his predicament; had he fallen he would surely have been dashed to death on the rocks below.

That lesson failed to register. Two days later, returning from work he again attempted a short cut across the face of another cliff. This time we saw a cloud of dust and heard an avalanche of rock hit the water. Claud and I scrambled to the river's edge as fast as we could. Bill had fallen thirty feet into ten feet of water. He had struggled to the surface and was holding to the face of the cliff when Claud reached him and pulled him out. How he escaped unhurt, or how he ever came to the surface with heavy boots, compass, revolver and belt ax, is still a mystery.

We selected our next camp site at the head of another dangerous rapids. We portaged the outfit past the Castle Rapids and I saw the raft with the three go safely round the bend past Castle Bluff. As soon as the raft was landed, Frank was to return for me and the boat, while the boys made camp. Late in the afternoon, Frank returned and between sputterings told how they had passed the camp site before they were aware of it. Frank had jumped ashore and grasped the blade of the sweep but the current had spun the raft around and pried him off the shore. Claud dived under the raft and grasped the other sweep, but he, too, was forced to let go just as it hit the rapids and disappeared in the spray.

The three then tried to follow, clambering over cliffs and through brush in the hope of catching up with it. They came to a big bend in the river and by climbing over a cliff got a good view of the river beyond, but the raft was nowhere in sight. Exhausted and disheartened, they started back. Coming out on a point overlooking a part of the river, they discovered the raft lodged in a small eddy just across from them. It had passed under a sweeper near the shore and the canvas covering had caught on a knot. Frank and Claud swam the river and with the aid of an ax soon made a small raft on which they returned for Bill. We had lost our best camera, our stove and a number of tools, but our essential equipment was saved. The boys made camp at our new location and the savory smell of frying fish greeted Frank and me when we reached camp late that night.

Game animals common to this region were plentiful. Scarcely a day went by that we did not see bear, deer and elk. Beaver, otter and mink were not uncommon. We saw snow white marmots, with their black noses and feet, foraging grass for their winter cache. These fat, sleek, little vegetarians were very plentiful and extremely tame, and startled us daily with their shrill whistle as we worked along the river.

We had heard much of the "Irish Railway," an extremely dangerous rapids, and were constantly on the alert for it. When we did reach it, we were almost into the current before we realized our predicament. Frank and Bill had gone ahead with the boat. As we rounded a bend with the raft, we saw Frank running over the boulders toward us, waving and shouting. We heard a roar. At that moment our raft slid through a trough between two rocks and I was listed completely off the raft by a wave which hit my sweep. As I rolled back on, Claud threw a line to Frank on the shore who snubbed us in. He had seen us coming and had run back to warn us just in the nick of time. We portaged our outfit for a half a mile through tangles of brush, over boulders and logs to the beach below the rapids. We then cut and peeled long poles and proceeded to skid our boat over the boulders around the rapids. To add to the discomforts of that day, the no-see-ums hung around in swarms and drove us nearly frantic until we got into our outfit and doped our faces and hands.

We had stripped our raft of everything including the sweeps. Carefully calculating the effects of the current, we let the raft down by line to the right place, then set it adrift. All might have been well, but a submerged rock swung the raft slightly out of its course. It was caught in the boiling rapids and spun around like a chip; a moment later our twenty-six-foot raft was standing on end in midstream, half submerged against a huge boulder. It looked as if we might be able to free it with a rope. Claud, in true western style, roped a corner of it with our three-quarter-inch line. We made Spanish windlass, a contrivance with tremendous leverage to wind the rope. We found, however, that the new rope would not hold and began to figure ways and means of recovering the rope without serious loss. Here the little .22 came into play again. Claud cut that rope not a foot from the raft in three or four shots. Our next raft served two moves farther before it also was destroyed in a rapids.

Running rapids was a continuous performance on moving days and had a queer fascination for us. To stand braced on the deck of a raft wielding a twenty-four-foot sweep and trying to dodge all the rock in a brimming gorge with waves waist deep rolling over you, is an extremely ticklish and exacting job which requires the minute coordination of mind and body, the more so, if your

cargo is the precious food which means success or failure to the expedition. Sites large enough to make camp on were not plentiful in the canyon, yet we never wanted for a beautiful spot large enough for our tent and fly.

Moscow Bar was a small flat, the site of an old placer camp, and the twin cabins which once housed the miners who had waded and boated up the river, still stood, but were slowly rotting to the ground. Our meat was running low and as deer were using the old building for a lick, we began to have designs on those deer. We nailed cleats across the windows of the rickety old cabin and swung a crude door with a trip trigger above the entrance for a trap. It seemed easy. A deer upon entering, tripped the string and the door dropped behind him. After setting the trap, we visited the cabin morning and evening. The third morning our trap had been sprung but our meat was gone. Our deer had squirmed out through a small hole beneath the walls.

The trap was reset, but no more deer entered. We then resorted to our .35 automatic, and although deer had been seen daily, true to tradition, we saw none when carrying the gun. With our meat supply now completely exhausted and still two or three weeks' work ahead, we were becoming desperate. Claud and I decided to drop down the river to the nearest settler and back pack some meat and other necessities. Taking our third raft, we dropped down thirty miles to where our map showed a trapper's cabin. The cabin was easily found, but the trapper was gone as was all his food except one old mouldy pork shoulder suspended from a rafter.

We then dropped six miles farther down the river to the cabin of an old settler, who to our disappointment, was also out of meat, but who supplied us with the other provisions we needed. This man was the first human being we had seen or spoken to outside our own party since leaving the Bungalow, two and a half months before. Abandoning our raft, we loaded our packs and started back on our thirty-six mile tramp up the canyon. After wading and rewading the river many times, we reached camp about noon the second day. On our way back we had helped ourselves to a mouldy shoulder of smoked meat. I never dreamed so much good, savory meat and soup could come from one old shrivelled shoulder joint as Frank got from that one.

Frank cut and peeled cedar logs for our fourth raft, which served us till we reached Asahka. Our camp in the canyon between Skull and Quartz Creeks was on a bar beside a stretch of quiet water, the first and almost only quiet water we encountered along the river. It was a beautiful spot, peaceful and silent, save for the occasional splash of a beaver who, at night, used our raft for a diving board, or the faint murmur of the rapids below wafted to us by the breeze. The boys laughingly remarked that the quiet kept them awake.

At Twin Creeks we found the remains of an old cabin built on a huge boulder under which the creek flowed. It was the only place in that locality which was big enough and level enough for a cabin. One evening, sitting around our fire, Frank told the story of the two prospectors who had built the cabin. Tony, one of the men had gone to a cache for supplies and upon returning that evening, found the door open and his partner gone, although his hat and coat were in the cabin. Tony anxiously, but patiently, awaited the return of the other for many days but he was never seen or heard from again. The solitude and the continuous gurgling and rumbling of the creek beneath the rock floor of the little cabin, preyed upon the man's mind until, when found, he was

raving mad. He imagined his partner as under that rock, mumbling and grumbling, trying to get out.

In addition to his many accomplishments, Frank was also an ardent fisherman. Fried or baked trout was found on our table almost daily. He took his rod one morning and headed for a narrow rock reef some ten feet high, which projected into a pool a short distance from camp. Climbing to the top of this perpendicular reef pole in hand, almost breathless, eager to cast his line into the swirling water, he nearly collided with a huge brown bear coming up the opposite side, not five feet away. Frank was no coward, but he must have suddenly decided the place was too crowded, for he dropped his pole and fell backward into the mud at the base of the ledge, and in an incredibly short time was out on the line with us. We gave him our gun, and although he hunted most of the day, the bear was not seen again.

Our survey was completed at Isabella Creek, and on September 22nd, just three months from the time we left Orofino, we loaded our boat and raft with our luggage for the last time and started down the river to Asahka. It was a three days' trip. The water was now at low stage and we were kept busy dodging rocks and helping the raft over shallow places.

We were a wild and weird looking crew, the most ragged bunch of tramps that I have ever seen, canvas patches from head to foot, but happy, healthy and hard as nails. We abandoned our boat and raft at Asahka, also our rags, bade good-bye to Frank and boarded the train for home.

The traveler into the North Fork of the Clearwater today will find a much-used auto road to the site of the old Bungalow, and a wonderfully scenic and well beaten trail, carved for miles through solid rock, traversing the entire length of the canyon to Asahka.

ALL IN A DAY'S WORK **by Joe B. Halm**

Early one morning in 1929 after traveling all night with a fire crew I met Ranger Coleman at the Continental Mine near the Canadian boundary on the Kaniksu. A fire burning on Lime Creek had jumped over into Blue Joe Creek the day before. Ranger Coleman and I took Sullivan, a foreman, and about thirty-five men over a mountain and down into a deep, heavily timbered basin to the head of the fire. Here we left Sullivan in charge and climbed a short distance through the fire to the Lime Creek divide where we could look around and make our plans.

It was about 8:30 o'clock in the morning but the fire was already burning briskly all around. While we were talking a lichen covered tree below us crowned out - then another, and almost immediately a general conflagration had started. We ran down into the fire and called to Sullivan to bring the men and tools out. Sullivan answered and we waited a few minutes; when the crew did not come we tried to reach them but found we were already cut off. We shouted instructions but the roar of the fire evidently drowned our efforts. We still expected at any moment to see the men come dashing out. Although only 30 minutes had elapsed since we had first reached the divide, the fire had already made tremendous headway and was spotting badly all over the basin.

Coleman started out one way and I the other flanking the fire hoping to meet the men; we were both anxious and alarmed for the safety of the crew. About noon we met, having gone completely around the fire which had crowned in strips up the steep slopes of the basin which was now a seething, roaring, cauldron of fire. Smoke was billowing into great thunderheads thousands of feet in the air. The fire was no longer confined to the mile-wide basin but was already several miles beyond headed for Canada.

Coleman had come upon one of the crew, a frightened and exhausted Italian, who excitedly told him that the boss and his entire crew were down in the fire and burned. He had run away from the crew when the fire came and had barely escaped with his life.

Coleman and I were frantic, we were responsible for the safety of those men trapped in the fire, but we were helpless. Sick at heart, we split again. Coleman headed around one side while I started up a steep, heavily timbered ridge a mile high between the old fire and the new. It was about 2:00 p.m. and as I climbed I could hear the fire at the foot of the mountain behind me crowning. Thus far I had not given a thought to my own safety. I decided that if the fire came up my ridge, I would dash over the rim into the basin side into an unburned rock slide. I had no sooner made this decision when, with a mighty roar a great wave of fire swept past me up across the rock slide. If the slope I was on burned next, and it looked as though it would any minute, I was lost. I told myself. I must keep my head and not get panicky.

The sky had become first red then black with smoke, the crowning below grew louder and more threatening, all avenues of escape were cut off I could not go back, I must push on up. I was getting tired, my breath was gone, my lungs were bursting, my heart was taxed to the limit. I had to pause every few feet to gasp and rest. The ever increasing roar below was terrifying and I was scared. The hot, parching air was dry and filled with ashes. Again and again I used my last mite of strength to stagger on up that last heart-breaking half mile.

After what seemed hours, I did reach the top and fell exhausted. A little later I again met Coleman begrimed, exhausted, and dejected; not a trace of the crew had been found. There was nothing to do but continue our hopeless search. Toward evening we reentered the fire near where we had left the crew in the morning. The smoke and heat were still almost unbearable and the hot, ash-covered ground was impassable. With handkerchiefs over our faces we ran along burned trunks which only that morning had been fine standing timber. Our shoes were burned and we had to stop and cool our feet after each dash. The noise of burning and falling timber was still terrifying. At intervals we shouted to men we were sure could no longer answer. We came to the place where we had left the crew that morning and saw a few burned tools axed a partially burned coat. With almost a sob I shouted once more. Then, as if from the dead, came the most welcome voice I have ever heard, "How the hell do we get out of here?"

Safe in a little opening in that great fire we found the men. Sullivan had heard our call in the morning and had gathered his men and tools and started up to meet us but had run into severe ground fire under the crowning trees and had turned back. Not knowing the country, he selected an open patch of scab rock about a half acre in extent to make his stand. They back-fired and fought the fire away from this tiny refuge all day, dodging falling snags and extinguishing fire on their clothing with water from their one water bag.

We led them back through the fire. The men were all thirsty and hungry but unharmed and in good spirits. Sullivan said his greatest concern that day had been for the Italian who had run away. I think Coleman and I each aged 10 years that day.

I find in reminiscing I go on and on. In thinking back over those early years of the Service I am impressed by the unselfish loyalty of everyone, the enthusiasm with which they worked and sweat, carrying their food and beds on their backs, traveling the dim forest trails mostly without horses. Pride and loyalty to the Service and their chief carried them on, rain or shine, day after day, sleeping under the stars or in winter in soggy, leaky cabins with sagging roofs ten feet beneath the snow. That loyalty and enthusiasm has never waned in my case at least.

There is a bond which holds those of us remaining who traveled the forests together in those earlier days, who ate from the same pan and slept under the same blanket or snowshoed with hundred pound packs for days, wet to the bone, sleeping by a fire on a bleak mountain top burrowed in the snow many feet above ground. When the snow was soft we sank to our knees staggering along under our packs breaking trail. When the snow was crusted on steep ascents, we painfully cut steps in the treacherous icy slopes, but when the snow was firm and the going was good, we laughed, joked and sang.

We have all shared the dangers, too, toiling beneath those great white billows of smoke miles high, adding our mite of strength to control the fire demon and stop the destruction that those to follow may profit by and enjoy our great national heritage.

I am sure not one regrets a single hardship, firm in the belief that each mile traveled, each step taken, has added a bit in making the Forest Service what it is today.

The thinning ranks of the old timers calls to my mind a great forest thinned to an occasional tree towering above the thickly seeded thrifty new growth. Who knows which of these old timers the next storm may uproot and crash to earth.

We are working today with young men all about us, fellows we have taught, trained and guided, all ambitious, all making good; many have already passed us along the way.

Sometimes I wish that I had the power to weld all those old comrades together into a chain with links so strong that no wedge of jealousy, selfishness or greed could ever separate.

ROBERT C. HENLEY
Assistant Forest Ranger
Deerlodge
(Retired 1929)

Box 1385
Anaconda, Montana
February 28, 1944

In 1940 I worked up some information for Mr. Gifford Pinchot, which may be of value to you in working up your records.

(Excerpts from information furnished Mr. Pinchot:)

I received my appointment on February 10, 1908, at a salary of \$900 per annum, and was assigned to the Allen Company timber sale in French Gulch, twenty miles southeast of Anaconda, under Forest Supervisor C. C. Hall.

I had general supervision of the sale area, put in skidways, and scaled stulls and also the sawlogs at the mill. The stulls were flumed to the flume yard five miles southeast of Anaconda, and loaded on cars and shipped to the Butte mines. The flume crossed the Continental Divide at an elevation of 6600 feet, and from 1800 to 2500 stulls per day could be flumed depending upon the depth of the water.

On July 1, 1908, the Deerlodge National Forest, with headquarters at Anaconda was created. It was carved from parts of the original Helena, Big Hole and Hell Gate Reserves. Subsequently there were some additions, but no major eliminations, except through land exchange. C. C. Hall, the first supervisor, served from 1908 to 1909.

During 1908, Supervisor Hall and his staff of thirteen district rangers were escorts of honor for Theodore Roosevelt when he visited Anaconda.

In January 1909, I was assigned to the Race Track District to thresh lodgepole pine cones. I also assisted Deputy Ranger Smith in scaling stulls on a timber sale on Modesty Creek northeast of Anaconda. In February of the same year I was assigned to the Pioneer District, where I worked until December 1910. I was then transferred back to the Allen Company timber sale in French Gulch under Supervisor D. T. Mason, and worked on this sale, marking timber and scaling, until 1916.

1916 I took charge of the Mines Timber Company sale on Mill Creek. The timber on the sale was practically all dead; only at the head of the flume could green timber be found, where there was approximately 1,000 acres of spruce, whitebark pine and tamarack.

Pack mules were used to pack cordwood from inaccessible places to the flumes in the French Gulch and adjacent areas. A mule would pack from three-fourth to one-half cord, according to the size of the mule.

ROBERT L. HESS
Scaler
Flathead National Forest
(Retired 1943)

Warland, Montana
March 1944

On April 1, 1908, Old Bob Hess took the ranger's examination for Forest ranger at Libby, Montana, under Glen A. Smith, Bill Raymond and a man by the name of Warner (who afterwards was Supervisor of the old Blackfeet Forest, as I remember).

My first appointment was forest guard, and I spent the summer mostly in the Pipe Creek District and some time in the Rexford District, until fire season started some time in the fore part of July. Then I was assigned to the district between Velcour and Libby for fire patrol, which I covered on foot, work trains, freight trains, hand cars, and sometimes on self-propelled speeders. And, not bragging, I usually made the round trip most every day, and never was more than two days. My fire equipment consisted of a canteen, canvas water bucket, shovel, carrying case, in which I carried a small portion of food.

Dave Kinney was my first Supervisor, for a short time, then was replaced by Ed Schoonover, who died during the winter in Missoula while attending a Supervisor's school. Then in the spring of 1909, Old Stutterin' Dorr Skeels took over, who myself as well as the other oldtime employees had the greatest respect for. And I still think he was a great Supervisor both in a technical and practical way, regardless of his other faults, if any. Then the changes in Supervisors came so fast for a while I can't just recall them as to dates and names.

YU first district covered the area from Jennings to the Canadian border, on both sides of the Kootenai River and the notorious Pinkham Creek District. As for the cooperation from the settlers and users of the Forest, I think I never created an enemy in my district. As for the settlers in the Pinkham District, I never had any trouble whatever. And shortly after there was a regular southern hillbilly disturbance, requiring gunmen and other law enforcement officers; and now there are very few if any of the original old timers left in that vicinity.

As for hairbreadth escapes from flaming forest, I don't know if I ever had any. However, in the early days of forest fires we rangers did not seem to sense the danger from forest fires as they did later on. Nevertheless, I have been in some pretty hot spots, especially during the 1910 fire season.

I can recall one incident which may be of interest to some of the oldtimers. I had a fire on the divide between Cripple Horse Creek and Canyon Creek in the Kootenai Forest, and had only one old pack horse to pack water, equipment and food, which was very limited, for 22 men. This was the latter part of August, so one evening on my way to headquarters I cut across country in a hurry to inspect other fires, which were many, especially along the Great Northern Railroad. I was going down a sort of open ridge I heard something and looked down a small spur of the main ridge, and there stood a deer. And as we had no fresh meat of any kind (which was not

furnished on small fires at that time, and very little at any time), and as I had a 22-caliber pistol with me, I thought I would take a chance at it. So I took careful aim, and at the crack of the pistol it dropped like a log. When I examined it, the deer was hit between the eyes and the bullet emerged back of the ear. The next day the boys cooked the whole deer, and the pot never got cold until the deer was all gone, except for the reprimand I received from Washington, D. C. And later on I took it up with some of the higher-ups and asked them what they would do under the same conditions, and they said O.K., but don't get caught.

In the fall of 1909 I helped Pete Fitzwater make the first timber sale appraisal he ever made, on what is now called Warland Creek. He afterward was Supervisor of the Pend Oreille Forest, I think, and afterward was transferred to the Washington office. This sale was made to the old Warland Lumber Company; also it was the first sale of any volume in the Kootenai National Forest, and I had charge of it to the finish.

Later on I took charge of the sale on Cripple Horse Creek which was made to the Baird-Harper Lumber Company. On this sale I did field work with Jim Girard, W. W. White, old Skip Knouf and other District officers.

The last work I did on the Kootenai was under the supervision of Frank Jefferson and C. S. Webb. The latter, to my mind, is one of the finest men I ever worked for, and also a man I have never heard an unkind word spoken of.

The past nine logging seasons I worked in the Flathead Forest under the supervision of Jim Urquhart, who always granted me (an old, wornout timber beast) all the consideration that I was entitled to, also the rangers and the men in charge of sales, Ralph Space, Ed Barry, Favre Eaton, Clyde Blake, and last but not least, Stan Larson. And I will always retain my admiration for the whole Flathead Forest personnel.

Now for a little joke on one of the higher-ups, not mentioning any names. (However, I think he has left the Service a long time ago.) At that time there was a part-time employee who lived at Tweed, up the Kootenai River. He was a man about six feet two inches, and during the winter when he was not employed he trapped up on Parsnip Creek and had a tent camp on the North Fork, and had built four pillars of rock to raise the old-fashioned camp stove so he did not have to stoop too much in cooking. And whenever he left he always left a good supply of pitch and kindling under the stove. As this higher-up was making a yield-growth study he requested the trapper to go with him up in the Parsnip Creek drainage, so he agreed to go with him, and on their arrival at his camp they found the North Fork of the creek dry, and as it was a considerable distance to the main creek and quite brushy, the trapper told the gentleman to build the fire and he would go for the water. On his return he noticed smoke coming out of the tent all over, and when he reached the tent he discovered that the gentleman in question had set fire to the kindling under the stove instead of putting it in the stove.

In regard to the hardships, the early-day employees did not think of them as such. For instance, hiking from Rexford to the Frenchman Meadows in the Yaak district, a distance of 40 miles, with packs or their backs weighing from 25 to 40 pounds; the same from the Olson Ranger Station on the Yaak to Troy - it was considered just a day's work with the old-time Forest

Service employee. I could go on relating what would seem impossible to the present-day employees in the way of hardships, with the transportation facilities, such as pickups, trucks and saddle horses to cover their districts.

Now a little reminiscence on Glen Smith. He and I made a field trip up the Kootenai either in the summer of 1908 or 1909, and we crossed the Kootenai River near the mouth of Bristow Creek and had to live two days on strawberries and crackers - and they did not go bad at that.

As one of the higher-ups remarked once, the time has passed for the ranger with the strong back, and I think it is about here, as there are very few of them left.

/s/ BOB HESS



Lunch at Meadow Creek, Flathead National Forest. Left to right — Rangers Thol, Mendenhall, Hutchison.



Government team and scaler's cabin at Beardmore's Tunnel Camp, Kaniksu National Forest. Howard Drake and Hank Ogsden in seat. 1923.

ELERS KOCH
Assistant Regional Forester
Timber Management, R.O.
(Retired 1944)

February 18, 1944

REGION ONE IN THE PRE-REGIONAL OFFICE DAYS

By Elers Koch

When Gifford Pinchot in 1905 took over the Forest Reserves from the Land Offices, he took with them all the personnel, good, bad, and indifferent. The new Reserves, their proclamations fresh from the President's pen, had to be organized, and at the same time those already under organization inspected and checked up.

To that end, a lot of us young fellows in our twenties, with the vast experience of two years on the boundary job, were pitchforked by Pinchot into jobs as general inspectors and sent West to see what we could find out. Being a native son of Montana, my field of action was in Montana and Wyoming. During the years 1905 and 1906 I made general inspections of the Gallatin, Big Horn, Absaroka, Madison, Lewis & Clark South, Lewis & Clark North, Big Belt, Little Belt, Deerlodge and Highwood Mountains in Montana, and the Big Horn in Wyoming.

I have run across a few of my old inspection reports in the files, and perhaps with due modesty, I am really surprised how good they were. Perhaps our youth made us bold and self-confident, but also the knowledge that, aside from G. P. himself and Overton W. Price, we had about as much experience as anybody else, although under present standards our experience would not qualify us for a job as district ranger.

It was more or less taken for granted that the politically appointed Supervisors of the G.L.O. would be found incompetent unless they could prove otherwise. Most of them were, but some of them proved to be pretty good men.

One of my first jobs was the Gallatin, in my own home country. At that time it, was only a spot on the map - four or five townships. Mike Langohr, the Supervisor, was the sole Forest officer. Mike wasn't so bad at that, but there wasn't much to do on this small area, and he shouldn't be blamed for also running a greenhouse and florist's shop on the side. However, after my inspection report Mike had to choose between the supervisorship and the greenhouse, and he chose to resign.

My first inspection of the old Lewis & Clark South in 1905 was an interesting job. This included the wilderness of the Blackfoot, Swan River, South Fork of the Flathead and the Sun River - and it was truly a wilderness at that time. Headquarters were at Ovando. The previous Supervisor had been Gus Moser, and many tales are told of his performances. It is alleged that he and his wife used to meet the rangers coming in for their monthly pay checks and mail, and that her wiles and other attractions, together with Gus' superior skill at poker, usually resulted in separating the

rangers from most of their pay. Moser was succeeded by Bliss, who was Supervisor at the time of my inspection.

He was a nice old man, but quite incompetent, and his only excursions to the forest were drives in a buckboard over the only road on the Reserve to Holland Lake in the head of the Swan. Fortunately for him he had an excellent and vigorous head ranger in Page Bunker. Bunker and I outfitted in Ovando with one pack horse and a saddle horse apiece. We rode up through the North Fork of the Blackfoot, across the range to the Dearborn, and north along the east side. Jack Clack (later in the Forest Service) was then buying Government timber and operating a small mill west of Augusta. We went up the Teton and down the North Fork of Sun River. We tried to cross into White River, but a snowstorm drove us out and we went back over the Dearborn. It was interesting that we saw no big game on that month's trip, though we ate grouse nearly every day, knocking their heads off with our 30-30 rifles.

As a result of my inspection, Bliss was removed and Bunker made Supervisor and headquarters moved to Kalispell.

In 1906, I made another inspection of the Lewis & Clark South. I started from Kalispell with one of the rangers up the South Fork. By that time the rangers had pushed a trail of sorts up river as far as Spotted Bear, and from the head of the river down to Black Bear. Between these two points there was no trail, but we made it through on elk trails as best we could. Again, in a month's travel in the late fall we saw no big game. Bunker was doing good work opening up the country with trails so far as his limited funds permitted.

On the 1906 trip I again crossed the main range and rode up the east side returning to Kalispell by a rugged trail along the Great Northern. I camped one night near Nyack, and during the night both my horses were run over and killed by a Great Northern train. I put in a claim but through neglect in following it up the case expired by statute of limitation and I never collected a cent from the railway company.

The Lewis & Clark North in 1905 included all of what is now Glacier Park and the country northwest of Kalispell. F. N. Haines was Supervisor. Mr. Haines told me how he came to be appointed. He had been active in Republican politics in his home town in Indiana, and one day one of the Senators from that state called him in and said, "Mr. Haines, I have two positions at my disposal. One is a postmastership, the other a Forest Supervisor in Montana. You can have either one." Haines said he did not know a spruce tree from a pine, but he wanted to go West so he chose the supervisorship.

Actually, in spite of his background, he made a good Supervisor for the times. There was little or no timber business, and he did not need to be a forester. The main job was opening up a wilderness, and Haines turned out to be a mighty hunter, and did a lot of good work in building trails bridges and ranger stations. He had some mighty good men as rangers. I specially recall "Old Death on the Trail" Reynolds, who afterwards became Acting Supervisor of the Big Belt Reserve, and Fred Herring, one of Theodore Roosevelt's old ranch hands.

While investigating a complaint case I ran onto an old fellow named Geiffer who lived up on the North Fork. He told me a story about Gifford Pinchot, who had explored this country in the nineties. Anyone who knows G. P. will appreciate it. It seems that Geiffer met G.P.'s party on the trail and Mr. Pinchot was riding one of Geiffer's horses. Geiffer said to him, "What are you doing on my horse?" G.P. said, "Is this s.o.b. of a horse yours? Well, you can have him. The blankety-blank-blank bucked me so blank-blank high this morning I thought I never would come down."

One of my most arduous inspection jobs was in January 1906. For some unknown reason the Washington office wired me to make an inspection of the Highwood Mountains Reserve at once. A field trip in the Highwoods in January is no picnic. I drove out from Fort Benton thirty miles or so to Highwood in an open bob sleigh, with the thermometer thirty or more below zero and the wind right off the North Pole. A man named Thain was Supervisor, and we took saddle horses and rode the Reserve, stopping at ranches. It was a poor time to see the condition of the range, but at any rate I got acquainted with some of the ranchers and got their reaction to the administration, which was generally favorable. I don't think it got above thirty degrees below on the whole trip, and if the Washington office merely wanted to find how tough I was, I certainly demonstrated.

I spent the spring of 1906 on administrative work in Washington. At that time the western Forests were divided into three administrative districts - the Northern Rockies, the Southern Rockies and the Pacific Coast. A sort of a Chief of Operation was made responsible for each. I had the Northern District, Smith Riley the Southern, and Coert DuBois the Pacific Coast. These positions were later rotated frequently as inspectors came in from the field.

Gifford Pinchot was a hard taskmaster to us young fellows. We had a buzzer system for inter office signals, but G.P. had a special buzzer of his own in our quarters - one buzz for me, two for Riley and three for DuBois - and this buzzer had a tone like a rattlesnake that fairly lifted one out of his chair and across the room when G.P. pressed it. When we wrote a letter for G.P. to sign we always awaited it in fear and trembling. If he signed it without change, it was an occasion of triumph. Often the letter came back with a big blue question mark scrawled across it. Then we had to figure out if it was basically wrong or merely a punctuation point out of place. G.P. was merciless with careless errors. I recall one reply I prepared to a Senator asking for the total area of the National Forests. The stenographer got an extra zero in my figure, which I failed to detect, and G.P. gave me a panning for carelessness which I will never forget. It was a hard school, but good training for us, and the surprising thing is that we never lost, our devotion and high regard for G.P.

I often think what a wonderful thing it was to have a Government bureau with nothing but young men in it. Most of the men, aside from G.P., Price and Potter, were in their twenties, and there was no sign of Departmental inertia or red-tape inhibitions in our cosmos. I believe much of the efficiency for which the Forest Service has been notable among Government bureaus was due to this condition. With the lapse of forty years, our Service has grown old, and the men in it. I sincerely hope that the present retirement policy will help to rejuvenate the Service, and that in filling vacancies seniority will not be given too much weight.

In the spring of 1907 all the general inspectors who had been making headquarters in Washington were moved permanently into the West. Six inspection districts were set up. District One, which coincided approximately with the present Region One, was given to E. A. Sherman. General inspectors under him were Paul Redington, George Cecil, F. A. Silcox and C. H. Adams.

I could have remained on as an inspector, but I had been knocking around the country for four years. I wanted to get married, and I had concluded that being a Forest Supervisor with definite responsibility for a particular tract of forest was the most attractive and soul-satisfying job in the Service. G.P. encouraged me in the idea, since he had promised the West that the Reserves would be placed in charge of western men.

In December 1906, I moved to Missoula with all my lares and penates, including a new bride, and took over administration of the Lolo, Bitterroot and Missoula Forests. These had been previously administered by E. A. Sherman, who now became a Chief Inspector.

The next few years were very satisfying ones. The Bitterroot had already been under administration for some years under the Land Office, and had a full staff of rangers, two or three of whom I had to get rid of promptly, but the Lolo and Missoula were virgin territory, which had to be explored, manned and organized.

John Jones was my chief ranger on the Lolo in 1907, and he was all over the Forest, picking up small trespass cases, and generally gathering information.

I had a light spring wagon with two good horses, which I could either ride, drive or pack, besides a buckskin pony for my wife. There was a big job of exploration to do, and I spent much of the time in the field, driving the spring wagon as far as roads went and then proceeding with saddle and pack horse. Often my wife accompanied me on the easier trips.

Even in the winter we were much more active in the field than the present Forest officers. Every man used snowshoes, as a matter of course, and much of our best exploration and rough timber cruising was done on snowshoes with a back pack. We thought nothing of a three or four-day trip in the winter, lying out by a fire each night.

I recall one such trip in early March 1908, with Inspector R. Y. Stuart and Ranger T. C. Spaulding. We snowshoed up Two Mile Creek in the St. Regis country as far as we could make in a day, stopping overnight at an abandoned prospectors cabin. The next day we crossed a divide and dropped down into the Little Joe. Stuart was awkward on snowshoes, and occasionally Spaulding and I had to pull him out when he went head first into a hole in the snow under a spruce tree.

We camped at night in the bottom of Little Joe Creek. No trail and a terrible jungle. It had started to thaw and a cold rain kept up all night. We had a little two-and-a-half-pound axe, and the first thing Stuart did was to miss his stroke and break the axe handle short in the eye of the axe. Consequently we had to content ourselves with such squaw wood as we could pick up or break off the lower limbs of dead trees, and we spent the night in the rain watching our pitifully small fire sink deeper and deeper into five feet of snow.

Many such trips as this gave us a good knowledge of the country and the timber, and we continually improved the very inadequate maps which were then available.

The years 1907 and 1908 were two busy years. Besides exploration, ranger station sites had to be located and cabins built, there were numerous timber trespasses to ferret out and settle, and timber sale business commenced almost at once.

The first large sale was made to the A.C.M. Company in Lick Creek and Bunkhouse Creek on the Bitterroot. We put the timber up at a minimum price of \$4 per M. The A.C.M. Company had a practical monopoly in the Bitterroot and refused to bid, but an Idaho concern, Hitt & Melquist, stepped in and bid \$4.02. The A.C.M. Company did not want another outfit in the Bitterroot, and had to buy them out at a profit. Than Wilkerson and a couple of other rangers, W. W. White and I started in to mark the timber. We had little background for the job except theoretical forest school learning, and were glad when Gifford Pinchot himself stepped in and gave us a check-up. It turns out that the early ponderosa pine marking in the Bitterroot was as good or better job than the Forest Service had done since that time. I still hope to live to see this area logged a second time with a very appreciable increment.

Through 1907 and 1908 the C.M. & St. P. & P. Railroad was just building through the Lolo, and that gave us lots of work. There was a constant succession of special use permits, right-of-way problems and timber sales to administer. The town of Taft was then in its palmy days, where they were building the tunnel through the Bitterroot Range, and it was indeed a wild town where the hard-rock miners could spend their money. It was the nearest thing I have seen to the wild western town of the pulp magazines. Gambling, dance halls and prostitution were wide open and the town roared all through the night. We often had to sleep there, but, sleep was nearly impossible in the canvas walled rooms above the dance halls. The winter of 1906 and 1907 was one of extraordinarily deep snow. Taft was buried in it, and it is claimed that six or seven dead men were dug out of the drifts in the spring.

The construction of the railroad gave us a constant fire job through the summer. There was a string of clearing fires on the right-of-way the whole length of the Forest. Fortunately, 1907 was a wet year, but 1903 was a continual fire-fighting job. I got my first real lessons in fire fighting from Ranger Frank Haun in 1908, and the experience we all had then stood the Lolo in good part when we had to face the 1910 fire situation. Actually, we had a surprisingly small loss by fire in 1908 considering the amount of fire we had to contend with.

We got our first real trail money in the fall of 1908. I had two goodsized crews out and built the first trail along the State line all the way from Fish Lake to Ward's Peak.

I well recall one trip I made in October 1908 with Ranger Watson, who is now a mail carrier in Missoula. We planned to follow the State line from Lolo Pass to Fish Lake to look out the trail possibilities. The line was monumented by the Boundary Commission, but there was no trail except game trails. We got off the divide down into the Idaho side and into some of the worst country I ever took a horse through. My saddle horse lost three of his shoes in the rocks and jungle. When we finally made it through to Fish Lake we ate the last of our grub that night. Here we picked up the new trail and expected to find the trail crew at Goose Lake, but found their

camp empty, and they had gone out. We had no food for two days, while we were making it back to Fish Lake and down Fish Creek to the settlements. This was a sample of the pioneering work we were all doing through those years - and how we enjoyed it.

We had relatively little real opposition to the National Forests from the local people. There were some die-hards who did a good deal of talking, particularly in the neighborhood of Darby, which E. A. Sherman, in a famous letter defending himself against an attack, described as a town "conceived in iniquity and born in crime." However, we just didn't pay much attention to such individual attacks, and tended strictly to business, without much publicity. I have often thought the best public relations work is doing your job well, and maybe worth more than a staff of news writers and lecturers. In all my experience as a Supervisor, I never had a serious complaint case which had to go to higher authorities.

In December 1908, the present Regional Office organization was put in effect, which marked the beginning of a new era of administration and the end of the primary pioneering period of the National Forests.

THE 1903 AND 1904 BOUNDARY EXAMINATIONS

By Elers Koch

There may be some historical interest in the early boundary examinations which laid out many of the Region One National Forests. Even before the Department of Agriculture took over the Forest Reserves from the Department of Interior, Gifford Pinchot realized that without further loss of time the remaining forest land in the West which was still public domain should be reserved. With Theodore Roosevelt as President, it was only necessary to get the necessary data as to general suitability of the land as Forest Reserves and the location of the boundaries on the map.

To this end a rush job was put over, principally in 1903 and 1904, to make the necessary field examinations. F. E. Olmsted was put in charge of the work. The personnel were all young men, mostly just out of forest school, and, considering their lack of experience, they did a mighty good job. The men engaged in that work in those years, as I remember them, were Smith Riley, Coert DuBois, Frank Reed, R. E. Benedict, W. H. B. Kent, John Hatton, R. B. Wilson, R. V. R. Reynolds, a man named Hereford, and myself. There were probably one or two others I have forgotten.

It was probably the best and most interesting job there ever was in the Forest Service. A man was given a State map of California, or Montana or Idaho, with a green-colored block indicating the general area he was to cover. The first job was to go to the local Land Office and take off on township plats the status of the land. At the same time rough copies were made of the drainage and topography from the township plats of such of the area as was surveyed. Sometimes a U.S.G.S. map was available, or some sort of a county map. Then the examiner proceeded to ride the country and see it for himself. The area was covered usually at the rate of about two days to a township, and we really saw and made every township. A rough type map was made showing the general classification of the cover. If there was no map, the examiner made a map as he went along.

Each man worked alone on a separate unit. He was allowed complete latitude as to how he covered the job. He might engage a packer with pack horse and saddle horses, or he might ride the country on a saddle horse, stopping at ranches, sheep camps, mines, or whatever offered when night overtook him. It was surely enjoyable work, each man his own boss, and seeing new country every day. The mapping was expected to be only approximate and there was no great amount of burdensome detail to worry about.

Considering the rapidity with which the work was done, it is surprising how well the original work has stood up. Most of the boundaries so established have had little modification in subsequent years.

We spent the summer and fall in the field, and in late fall all repaired to Washington with our notes and maps and spent the winter getting the data on paper. As fast as a unit was completed a proclamation was drawn and sent to President Roosevelt for approval. It was a quick and efficient job, and before Congress got around to repeal the authority of the President to proclaim Forest Reserves nearly all the remaining forested public land in the West had been safely covered into the Reserves.

My own first job in 1903 was the Shasta in California. I spent most of the summer on it, and in the fall rode the Santa Monica Mountains in Southern California, but there was not enough Government land left in this range to justify reservation. I shall never forget a 20-mile ride along the beach between the Santa Monica Mountains and the ocean. There was no road or trail and I rode the sand beach. It was entirely free of settlement at that time, and I did not see a soul all day till I came at night to the Malibu Rancho, which owned much of the ocean front. I haven't seen it since, but I understand this ocean front is now lined with motion picture stars' homes.

In 1904, I covered the Gallatin, the Tobacco Root Range, now in the Beaverhead, and the Castle Mountains, now in the Lewis & Clark. In the fall I looked at an area in the breaks of the Little Missouri in North Dakota. It contained only a few stringers of yellow pine, and I recommended against it, but it was proclaimed as the Dakota Forest Reserve, and a few years later was released.

In the late fall of 1904, Lew Barrett and I examined and readjusted the entire boundary of the Big Horn Reserve in Wyoming.

All of the Reserves in North Idaho were created before the regular boundary job. In Montana, as I recall, Coert DuBois did the Lolo. John Hatton did the Helena, R. V. R. Reynolds did the old Missoula, now in the Lolo, north of Missoula. DuBois also did the old Hellgate, now part of the Lolo, Bitterroot and Deerlodge. A man named Hereford did most of the Beaverhead.

About the only considerable area in Montana which was not covered in time was the range northeast of Missoula between the Blackfoot and the Clark Fork. This was lined up for examination, but we did not reach it before Congress took away the President's authority.

In 1905, DuBois made a quick ride up the West Fork of the Bitterroot and eliminated a strip along the river which was alleged to be agricultural. It turned out to be mostly a mistake. In the

same year I recommended some reduction in the area of the Madison and the Absaroka to eliminate some straight grazing land.

It would be interesting to know whether any of the old boundary type maps and reports still survive.

When the Department of Agriculture took over the Forest Reserves in 1905, nearly all of the old boundary crew were made general inspectors, and 1905 and 1906 were spent in inspections which resulted in a high percentage of the Land Office Forest Supervisors being dismissed. It was quite a shake-up.

Most of the boundary men took places in the new District Office organization when it was put into effect in 1908.

I do not recall much opposition which developed while the examinations were being made. I guess it was all done so fast that the local people didn't quite know what was happening till T. R. signed the proclamation.

EARLY RANGER EXAMINATIONS IN MONTANA

By Elers Koch

In 1905, when the National Forests were transferred to the Department of Agriculture, one of the first essentials was to obtain a competent staff of men to man them. The personnel employed by the Land Office on the earlier created Reserves were all taken over, but as some of them were incompetent political appointees there was a good deal of immediate weeding out, which left vacancies to be filled. There were, to be sure, some mighty good men under the Land Office - fellows like Than Wilkerson of the Bitterroot, and Frank Haun and Page Bunker of the old Lewis & Clark. We gladly retained such men. There were also a lot of new Reserves, such as the Lolo, Cabinet, Hellgate, Helena, Beaverhead, Deerlodge, etc., which had to be organized and manned from the start.

Gifford Pinchot had promised the western people that so far as possible the Reserves would be put in charge of local men who knew the country and its traditions. As pioneer conditions prevailed, the aim was to select competent woodsmen for rangers - men who could shoot straight, handle horses, travel with a pack outfit in the hills, and generally take care of themselves outdoors.

The first job of the newly appointed general inspector for each region was to hold a series of ranger examinations. In 1905 I conducted three such examinations in Montana, at Missoula, Bozeman and Neihart.

In contrast to the present-day purely written Civil Service examinations, the original tests included two days' field events and one day for the written portion. The field test included rifle and pistol shooting at a target, riding a horse, putting on a pack, a simple exercise in compass surveying and pacing, the use of an axe, and cruising of a block of timber.

From twenty to thirty men turned out at each place of examination. They included all sorts, from packers and bar-keeps to first-class woodsmen or cowpunchers. We usually proceeded first to the local target range for the rifle and pistol shooting, which aroused great interest and competition. Walt Derrick tells with great glee how his first pistol bullet shuck a rock thirty feet in front of him and ricocheted to the target to become firmly imbedded in the bulls-eye. He claims I allowed him the bulls-eye, since the bullet was there to establish it.

Most of the man got by fairly well with the horseback riding, since everybody rode in those days, but from the way a man approached a horse and swung into the saddle it was not hard to tell the good horseman.

The packing was the most fun. Obviously, some of the men had never put on a pack before, and they were required to cargo up a miscellaneous outfit of camp equipment and grub and pack it properly without the use of alforjas. Many and curious were the hitches used. I remember one fellow at Missoula who, after precariously balancing the two packs on the saddle, took the last rope and wound it full length around the horse and over the pack. I asked him what he called the hitch, and he said it was the "Oregon wind."

The second day everybody mounted saddle horses or buggies and we proceeded to the nearest timber for the ax and cruising work. I usually picked a tough Douglas-fir for each man's chopping demonstration. Some of them, of course, put the tree down in workman-like manner. Others went at it like some of our green CCC boys. I recall one barber who, after painfully beavering around his tree for ten minutes, stopped to wipe his streaming brow. One of the boys called to him, "Joe, it's about time for you to stop and hone your razor."

After the timber cruising, which finished the field test, we generally had a horse race back to town. I especially remember the race at Bozeman. I was riding a hard-mouthed, raw-boned black horse we called Nigger Baby which belonged to my brother. We came down out of Sour Dough Canyon hell for leather, and nobody succeeded in passing me in the ten miles to Bozeman.

Those examinations really were effective. The written test eliminated the illiterates, and the field tests insured that we got experienced hands. We got a lot of good men from these examinations. Several similar examinations were held over the next few years, generally conducted by the Supervisors. I think I held the last field examination in Missoula in the spring of 1910.

MY CLOSEST SHAVE ON A FIRE

By Elers Koch

Everyone who has fought big fires for thirty years has inevitably had a number of what seemed to be narrow escapes from death. Working up close to a hot fire, one faces danger of falling snags or being caught by a sudden rush of the fire. Scouting around a fire, usually alone, involves a continual risk of being cut off in a bad place.

As I look back on my experience, it seems to me that the tightest spot I was ever in developed on the Slate Creek fire in 1934 on the St. Joe Forest.

The fire had been going several days when I arrived at Avery. I obtained a saddle horse and rode up the trail to the look out on Flash Peak. A CCC crew was camped here in charge of one of the camp superintendents. I can't recall his name. I sent my horse back to Avery by a CCC boy and went down to look over the situation.

I found that a fire line had just been completed by this camp and another camp in Slate Creek down a draw to the main Slate Creek, about two miles. The line was in contact with the fire near the summit of the mountain, but gradually diverged from the fire edge and paralleled the draw down to the main creek, about one-third of the way up on the south slope. The fire had checked, for the most part at the bottom of the draw, but was all set for another run, and it was immediately evident to me that this line could not be held if the fire were permitted to burn up to it with an uphill drag.

It was the middle of the afternoon when I went down the line with the superintendent. I was afraid to start back firing that afternoon, but told him to start near the top of the mountain as early as possible next morning, and backfire down the line as fast as he could, expecting to carry the backfire as fast as possible all the way down to Slate Creek. I went on down the line and spent the night at the Slate Creek camp.

Next morning I started out with Harry Gisborne. Just before I left Slate Creek Gisborne took the relative humidity with a sling psychrometer. He gave me the reading, which showed fairly high humidity, and I drew what turned out to be a wrong conclusion, that we could expect a fairly favorable day so far as burning conditions went.

Frank Bishop had charge of the crew from the Slate Creek camp, and together with him and his crew we climbed up the fire line till we met the superintendent near the top of the mountain. It was now the middle of the morning, and I was dismayed to find that he had not even started backfiring as I had ordered. I had figured the backfire would be half way down by that time. I am afraid I lost my temper and berated him rather severely.

It was now pretty late to start backfiring, but I knew the line could not possibly be held any other way and started his crew to work at once; setting a good deal of the fire myself. After a couple of hours, when the fires were going good, I started down the line to see what was happening below. Bishop, having heard my "cussing out" of the superintendent, had apparently made up his mind he was going to do his share, and had started enthusiastically backfiring the lower part of the line. I had not counted on that, as I wanted to work the backfire down from above, so we would always have a get-away route.

It was a dry south slope, densely covered with brush and interspersed with down logs and snags. The backfire was burning pretty hard, and the main fire at the bottom of the draw was beginning to stir.

It didn't look too good to me, and as I went down the line observing it I discovered that the backfire below me had jumped the line and was making a run to the ridge top. Half of Bishop's crew had withdrawn below the break, and about forty men remained with me in charge of Ranger Stan Larson.

I figured we had better be looking for a get-away, and we started back up the fire line. To my dismay the fire had also jumped the line above us and was raging toward the mountain top in heavy dead timber. The superintendent had withdrawn his crew over the mountain.

So here we were on a section of perhaps a quarter mile of unburned fire line with the fire across, both above and below us. We moved down toward the lower end, and I found a small ridge where the backfire had run out perhaps two hundred feet below the fire line. We moved out onto that, but the ground was still hot and smoking, and our island of safety seemed mighty small and precarious. I could see that the whole gulch was going out in a few minutes in a big burst of fire, and our chances of surviving such a general conflagration seemed mighty small. Things looked pretty bleak, and I figured next day Bishop would be sifting forty heaps of ashes for our buttons.

The men were uneasy, but quiet. I got Larson aside for a consultation. In the dense smoke we had no way of telling how wide the belt of fire was below us. It might be a hundred yards, or it could be half a mile. Larson said he didn't believe we could stick it out where we were and thought perhaps we might make a run down the line through the fire, which was advancing up both sides of the fire line toward us.

It seemed like a counsel of desperation, but it was better to try something. So I said I would take the lead if he would come behind the crew. The fire was blazing hot in the brush and logs on both sides of the fire line, so I put my arm up over my face as a shield and dashed into it, the men close behind me. The heat and smoke were terrific, but there was no turning back, and a three hundred-yard run brought me out to where I could see clear sky through the smoke. I was never so glad to see anything in my life. If it had been much farther we couldn't have made it.

We all got through safely, and found Bishop and his crew waiting below, wondering what had become of us. My eyes were so smoked up I could hardly see, and as the whole gulch was going out with a roar there was nothing we could do till it checked on the ridge top and we could get near the fire. So I pulled the whole crew down to the Slate Creek camp and spent the evening beside the creek putting wet cloths on my burning eyes.

The next morning, as I expected, the fire had checked on the ridge, and a day's work by both crews pretty well sewed it up.

I have had a mighty high regard for Stan Larson ever since, and figure his judgment saved the lives of forty men.

THE LOCHSA RIVER FIRE

By Elers Koch

A forester in the Northwest dates the events of his life by fire years. The 1910, 1917, 1919, 1926, 1929 and 1931 fire seasons each have a character of their own, and in each year are individual fire campaigns which the forester remembers as the soldier recalls the separate engagements of the war.

The Lochsa River fire in 1929 is one that I recall most vividly. It stands out as one of the longest, hardest-fought campaigns in my personal experience, and its location in one of the most inaccessible and primitive regions of the United States added to the usual vicissitudes of fire fighting.

On the night of August 1 a sudden mountain thunder storm reverberated through the Lochsa River canyon. Chenowith and Larsen, the smokechaser and lookout at Castle Butte, sat in the glass-walled lookout house and took the bearing of each lightning stroke that seemed to reach the ground. By daylight they had spotted three smokes, and at 4:10 Chenowith set out with his back pack of forty-one pounds of grub and tools for the nearest smoke down in Bald Mountain Creek. When he reached the fire at 6:30 it had already covered three-fourths of an acre. A big dead cedar had been struck by a lightning bolt and scattered burning fragments in all directions. Chenowith laid down his pack and set to work with axe and mattock, to cut and trench a line around the fire, which was burning in heavy down logs.

About the middle of the afternoon a high wind came up, and in spite of his best efforts the fire blew across his line and made a run up the hill. The lookout was watching, and when the smoke commenced to roll up, he telephoned for reinforcements. Men came from all directions, from distant trail camps and lookouts. Case, the assistant ranger, and two men came up from the Lochsa Station. Three trail men came in from the Eagle Mountain trail, and three from Fish Creek.

By 7:00 the next morning there were nine men on the fire. The pack string from the Lochsa Station brought in supplies and placed the fire camp at a spring and the hillside half a mile above the fire. Again in the afternoon the dry southwest wind blew a gale. The fire scattered from rotten snags and swept up the slope, gathering intensity and velocity. The camp was burned, the cook barely getting out with his life. The men fell back to the river, a new camp and more men were brought in, and a fresh attack made.

On the 7th I was just completing an inspection trip on the Clearwater Forest when instructions came from the Missoula office for me to check up on fire conditions on the Selway. The Bald Mountain fire was reported out of control, and a serious situation was developing in Old Man Creek.

I left my car at Pete King, the main supply depot at the junction of the Lochsa and Selway Rivers. Here the forces were gathering, pack strings assembling, and truckload after truckload of food supplies and tools coming in from Spokane. I rode thirty miles on horseback to the fire camp on the river at the mouth of Bald Mountain Creek. Forest Supervisor Wolf was in charge in person, with a crew of about fifty men. That afternoon I scouted the fire sufficiently to obtain a general idea of the situation. The fire had burned down the creek nearly to the river and had burned about three-quarters of the Bald Mountain Creek drainage. Fire lines had been extended some distance up the ridges on either side of the creek and were holding successfully. About two miles back from the river the fire in its terrific rush to the ridge top had spattered spots of fire well down into Castle Creek, the next drainage to the east. Wolf and I both agreed that this was the critical point. If it could be controlled it was probable that the fire could be held to the Bald Mountain Creek drainage.

The crew was out before daylight next morning. The plan was for Ranger Hand with twenty men to continue the fire line up the west ridge. Townsend, with a pump crew, was to attack a heavy fire in the creek bottom, which threatened to back down the creek to the river, and Bill McRoberts, a trailcrew foreman, was to take twenty men up the east ridge and drop down to the fire in Castle Creek. A new camp was to be established at the Castle Butte Lookout and Bill's men were to be brought up there for the night.

I decided to scout the fire in the upper part of Bald Mountain Creek. I started up the east ridge and then cut through on a contour across the freshly burned area into Bald Mountain Creek. The slope showed evidence of a terrific blast of fire. Every tree was charred black, and the fire had swept the ground like a blow torch, utterly consuming every particle of vegetable matter so that the soil on the steep slopes was a shifting black desert of granitic sand and ashes which slid and shifted under my feet. The ground was still hot, with many logs burning and snags crashing down at intervals.

I pushed my way across the burn as rapidly as I could, often walking down logs to keep out of the hot ashes, and with my eye cocked for dangerous snags, slipping and sliding on the steep ground. It was a blistering hot day, and I made a long, hard, half-day's trip before I reached the upper edge of the fire. It was moving steadily in dead timber up the creek, blazing high in places where the fuel was heavy. I picked a quiet sector and managed to get across the live fire edge to the unburned ground.

It was a long pull from here up to the Lolo Trail at the summit, and I was more than glad when I hit the trail to intercept two pack strings headed for Castle Butte. Fortunately, one string had a spare bell mare without a pack, and I gratefully climbed aboard bareback for the five miles of steep trail to the lookout.

A fire camp was established at the lookout, and Bill's men pulled in late, pretty well done up from the long climb.

The next morning I went down with the fire crew to the critical point in Castle Creek. The fire had spotted over the ridge in a long tongue, extending almost down to the creek between two lateral branches. It was burning fiercely at the lower end in heavy dead timber, but I hoped if we could cut it off at the bottom, the branch creeks would temporarily hold the fire from spreading laterally along the slope until we could extend the fire lines from the bottom up to the ridge top along the flanks of the fire. If I had had fifty men instead of twenty, I believe we could have made it.

Burning conditions could not have been worse - heavy dead timber killed in the 1910 fires, and grown up to dense brush. The timber was mostly white fir and cedar. Rotten white fir snags would catch fire in the tops and throw showers of sparks which again and again blew across our fire line and started fires in rotten wood back of the line. Big hollow dead cedars came crashing down across the line, shattered into kindling wood, and burst into flames. The falling snags were a constant hazard to the men. A 150-foot dead tree comes down with a slam that shakes the ground like the burst of a high explosive shell and is calculated to put fear into the hearts of the bravest of men.

For two days the Crew fought it out bravely, losing line, picking it up again, and losing again at another point. It was impossible to get the camp down into the Castle Creek canyon; and the 2000-foot climb up hill every night to the camp at Castle Butte was a man-killer. By the third day the fire had backed us down almost to Castle Creek. We held only a few hundred yards of fire line across the point between the forks of the creek, and were trying to hold the fire from crossing these forks with water buckets.

From the feel of the air I knew it was going to be an exceptionally bad fire day. About two o'clock I climbed up on a rocky point on the far side of the creek where I could overlook the fire. The flames were everywhere picking up in volume and intensity. Even as I watched, the fire crossed the small creek just above our fire line and swept up the slope, great masses of flaming gas rolling out of the black smoke, and whole acres bursting in to flame simultaneously.

Next I saw it cross the other fork and cut off our way back to camp. I still sat for five minutes looking down at the crew working on the line, thinking what a pitiful effort man can exert when the great forces of nature are really aroused. Two men were working immediately below me in the creek bed with canvas water buckets. A great white fir crashed down immediately over them. The two men dived under a protecting creek bank and came up out of a cloud of dirt and smoke, looking scared and foolish. A group of men were watching a big hollow cedar close to the fire line which was burning inside like a chimney. Down it came across the line, scattering flaming kindling wood in all directions.

I saw that the jig was up and the best we could do was to get out without scorching our hides. I dropped down the hill, spoke to the foreman, and we assembled the crew as quietly as possible. It was out of the question to get back up the mountain to the fire camp. Our best chance to get out was down Castle Creek about two miles to the river. There was no trail down the creek, and I knew the going would be slow along the brushy, log-choked creek bottom. I decided to abandon our tools in order to make better speed, as there was serious danger that the fire would spread down stream along the slope fast enough to cut us off. The men strung out down the creek, with the foreman in the lead. I brought up the rear to make sure there were no stragglers. The men were nervous, but fully under control.

The smoke was so dense nothing much could be seen, but we could hear the muffled roar and crackle of the fire and the crash of falling trees along the slope to our right. An occasional swirl of the high wind parted the smoke so that the flames could be seen sweeping wildly through the heavy stand of dead timber. For a time the fire moved down stream faster than we were traveling, but the head of the fire kept to the slope, and it lagged enough in the creek bottom so that we kept ahead of it. The men were laboring and cursing as they wallowed through the thick brush and clambered over and under the great down logs that choked the creek bottom. At length we left the fire behind us and came out on the river-trail, and so back to the fire camp at the mouth of Bald Mountain Creek.

The next morning, August 14, I took the crew back to Castle Butte, a climb of 4500 feet from the river. Reinforcements of twenty-five men had come in, so we were forty-five men strong at the upper camp. Townsend took charge of the crew and undertook to cut the fire off below the

lookout while I scouted. The fire was burning hard in Castle Creek canyon where it had driven us out yesterday, and in the late afternoon, to my dismay, it crossed the river.

On the 15th there was a tremendous smoke up the river, and it was obvious that the fire had gotten quite beyond possibility of control for some time. Supervisor Wolf scouted east on the Lolo Trail, and tried to get down the Eagle Mountain trail to the river, but the fire had already passed that point and drove him back.

The District Office at Missoula now got into the game and commenced moving in men and pack stock. They arranged for the Clearwater Forest to move men in on the Lolo Trail, and for the Lolo Forest to bring a crew down from the Powell Ranger Station to try to cut off the march of the fire up the Lochsa canyon. By the 17th we had the fire line pretty well completed on Bald Mountain Creek and there seemed nothing to do but follow the fire up from the rear, cutting it off along the flanks. Flint flew over the camp in the fire patrol plane, and dropped a map of the fire and the morning paper from Spokane. The fire was up the river as far as Weir Creek, and Ranger Ed Mackay was moving down with fifty men.

I sat late at night alone on the lookout and watched the fire - a thrilling sight. Castle Creek and Buck Creek below me were lighted like a city at night with dead snags still burning, while the live edge of the fire was defined in wavering loops of light. Across the river the fire edge rose in a straight breast out of the canyon, and at the top, outlined in fire, was the image of a gigantic bear's head snarling down river, with long fangs of flame - a most impressive symbol. I felt much depressed, and hopeless of accomplishing much.

The following day I moved in a new camp to a spring just off the Lolo Trail two miles east of Castle Butte, and Townsend took a crew of forty men down the Eagle Creek trail to try and cut off the fire on Lost Creek. The fire moved up so fast he lost what little line he could get in. He fired a foreman and fifteen men because they would not stand up to the fire. I spent the night in Townsend's camp. We were camped at a spring on the hillside, just under the summit. The airplane dropped another map for us. They circled low over the camp and barely cleared the treetops on the ridge, then swooped low and dropped the message carrier, and zoomed over the ridge.

I went out with the crew at daylight next morning. We started in the creek bottom in Lost Creek and by noon had successfully carried the line out to the ridge top. This line held, and the next day we attacked the fire on Buck Creek. More men were coming in all the time, and Assistant Supervisor Gerrard of the Clearwater had come up. The Old Man fire across the river was smoking up big, and Ashpile Creek up the river went out with a great mushroom cloud of smoke. I knew Mackay must be having trouble up the river.

On the 21st I got word over the telephone from District Forester Kelley that he wanted me to take charge of the entire fire and coordinate the efforts of all three Forest organizations working on it. The plan was for the Clearwater to carry the line eastward along the Lolo Trail. The Selway had succeeded in cutting off the fire in the canyon on the downriver side, and the men were moving forward on the south side, while the Lolo men were vainly battling with the run of the fire up river.

I turned over command of operations on the north side to Gerrard and rode out along the Lolo Trail to Indian Post Office Lookout, passing the heads of Lost Creek, Indian Grave Creek, Weir Creek and Post Office Creek. They were all afire half way up from the river, and it looked like dangerous business to put camps down into them above the fire. It was a relief to get away from direct contact with the fire for a day, and I enjoyed the ride along the high divide in the cool of the morning.

Along the Lolo Trail I met Cool from the District Office escorting three strings of Montana Cayuses loaded with supplies and equipment. He had been four days en route from Powell Ranger Station, and had crippled and abandoned two horses on the trail. The half-broken cayuses with sawbuck saddles were quite a contrast to the sleek mules of the Government pack strings, well and uniformly equipped with Decker saddles and capable of carrying 250 pounds per mule.

I spent the night at Indian Post Office, a most remote spot in the Clearwater wilderness. It was near this summit that the Lewis and Clark journal comments, "From this elevated spot we have a commanding view of the surrounding mountains, which so completely enclose on us that though we have once passed them, we almost despair of ever escaping from them without the assistance of the Indian."

On the 22nd I rode from Indian Post Office down the Squaw Creek trail to the river and made contact with the Lolo forces under Supervisor Simpson. Simpson and Ranger Ed Mackay had been fighting a losing battle since the 18th. The fire was making tremendous runs up the Lochsa River canyon every afternoon, going over their puny fire lines as though they did not exist. Three times, once in the middle of the night, they had been obliged to dump their camps in the river and retreat in more or less confusion to save their lives. The march of the conflagration up the canyon seemed irresistible and almost hopeless to check.

When I arrived, reinforcements and more overhead and equipment had come in from Missoula to back up the more or less demoralized and discouraged men who had been retreating before the fire. The crew, 150 men strong, was camped at what we called the beach camp, a wide, rock bar on the edge of the river, four miles below the Jerry Johnson cabin, which had been selected as the safest possible place in the face of the fire. I arrived just at supper time and found the long lines of men filing past the extemporized tables where the cooks were dishing out huge helpings of meat, potatoes, beans and coffee. After supper we held a council of war of all the Forest officers assembled in camp. Besides Simpson and Mackay, there were Thieme, Lommasson and Sandvig from the District Office, Rush from the Absaroka, and Ranger Olsen, who had come all the way from one of the Utah Forests to help out. They were all experienced fire fighters and men to depend on.

The head of the fire that night on the south side was just across the river from camp on the ridge overlooking Colgate Creek. On the north side it was still two miles below camp in Post Office Creek.

All sorts of suggestions had been made to stop the inexorable move of the fire up the river, from rigging up relays of pumps to building wide fire lines a mile or two in advance and backfiring. Our final decision was to get in as close to the fire as possible early in the morning and try to

push the fire lines both ways from the river. If we got a favorable day or two we could crowd the fire up out of the draft of the canyon. If bad fire weather continued we could expect to lose our lines and fall back once more.

We were short on beds that night, and the best I could find was a spare canvas fly to roll up in. I was at any rate glad to get back on the river where I could get a decent wash. I had been on the fire for fourteen days with no baggage save a towel and a pair of socks, and was indescribably filthy with the dust and sweat of the fire line. A fire camp is no place for a fastidious man. One learns to gladly tuck under one's chin the more or less dubious blankets a half dozen fire fighters may have slept in, to drink out of a common cup or water bag with fifty men on the fire line, and to let the flunkies slop great dippersful of food onto a tin plate with more than a suspicion of grease on it and to devour it with appetite.

The cook's breakfast call got us out in the dark of the early morning, and the first gray of dawn saw us out of camp. Simpson, Sandvig and Olsen took half the crew down to Post Office Creek on the north side, while Thieme, Lommasson and Rush, with their crew, waded the river and started a fire line from the river up a steep slope through a thick jungle of young timber on the ridge overlooking Colgate Creek. It was a desperate place to attack the fire if the weather turned at all bad, and I must confess I had little hope of the attack succeeding unless conditions changed for the better.

After getting the crews started I went into camp to get on the telephone. One of the packers reported seeing a spot of fire near the Jerry Johnson trail on the east side of Post Office Creek. If this were true we had fire east of our lines, and plans would have to be changed radically. I mounted my saddle horse and started up the trail to reconnoiter. By the middle of the afternoon I had satisfied myself that it was a false alarm and rode back down to the river. At the Jerry Johnson cabin I stopped for a moment and found Ed Mackay there and a new crew of twenty-five men that had just come down from the Powell Ranger Station, and three pack strings loaded with tools and supplies. I was anxious about conditions at the beach camp, and rode on down the river in that direction. A mile above camp was what is known as the Colgate Lick, one of the biggest game licks in the country. It is, or was, an interesting spot - a saline spring located in a grove of gigantic cedars. Elk trails converge from all directions, and over an area of three or four acres the forest floor was bare as a stock corral from the tramping of herds of game.

Half a mile from the lick I met two scared fire fighters, half running up the trail. They told me I couldn't get through; that the fire had spotted in below the trail near the elk lick and was burning furiously. This looked bad. It meant the beach camp was cut off from any possible retreat, and might be in considerable danger. I determined to get through if possible, and sent my horse back to the Jerry Johnson cabin with instructions for Mackay to hold the men and pack strings there.

I hurried down the trail afoot and could soon see the smoke and hear the crackle of flames ahead of me. Two cow elk dashed wildly past me. I encountered the fire a quarter of a mile before getting into the lick. It was still below the trail and I yet hoped to get through. I broke into a run, and as I came into the lick there was a tremendous burst of flames ahead of me in a dense thicket of young cedar and white fir, with the terrifying rushing sound of fire crowning through green timber. It was hopeless to get through, and I turned and dashed back the way I had come. The

fire was coming up the hill fast and burning so close to the trail that it was only by a close shave that I managed to get by at top speed.

There was nothing for it but to return to the Jerry Johnson cabin and hope for the best. Mackay had established a camp there and supper was under way for the men. The smoke rolled in from down river, the sky was a ghastly yellow, and by seven o'clock it was pitch dark. We were by no means sure that our position would be tenable, and at eight o'clock Mackay started the pack strings, which had been kept saddled and waiting, back up the river. I got out a supply of lanterns and had them ready for a night retreat if necessary. The men all rolled into their blankets, and Mackay and I lay down on the bunks in the old cabin with our clothes and boots on, leaving the smokechaser stationed there to keep watch. At ten o'clock he reported the fire in sight.

We got little sleep that night. The fire came within a quarter mile of us on the north side, the side we were on, and swept clear past us on the south side. Through the dense cover of smoke we could see ridge after ridge flare up across the river, and a spot started close to the river bank half a mile above the cabin. Several times I was about to rouse the men and move out. Mackay was a reassuring presence, and he felt we could safely stick it out. If we did get cut off we could always take to the river. About one o'clock in the morning the wind died down and the run of the fire ceased.

At the gray of dawn in the morning I was off down the trail for the beach camp, leaving Ed Mackay with his twenty-five men to do what he could with the most dangerous spot fires along the river. A half mile below the Jerry Johnson cabin I ran into the edge of the fire. Getting through on the trail seemed out of the question, so I dropped down to the river and made my way along the beach to the camp, where I got the history of the preceding day from Simpson and Thieme. The fire had spotted over from the Colgate ridge inside of Thieme's line, and set fires across the river just below the Colgate Lick. Thieme withdrew part of his men to try to get these spots, and about the middle of the afternoon everything broke loose at once. The fire swept clear over Thieme's line, and Simpson lost everything on Post Office Creek. The Colgate Lick fire cut them off from everything on Post Office Creek. The Colgate Lack fire cut them off from retreating up river, but fortunately the main fire on the north side did not advance that far, and, while the fire burned to the water's edge just across from camp, the beach camp itself was safe, though they spent a pretty anxious night.

Evidently another retreat was in order, but it was impossible to get a pack string through the fire on the trail to get out the outfit, so kitchen outfit and supplies were temporarily abandoned on the beach, and each fire fighter took a bed roll and one tool and made his way up river to the Jerry Johnson cabin, which was to be our next base of attack. The whole outfit was pretty well disorganized, and one detachment, which had been working on Post Office Creek, had not been able to get in to the beach camp the preceding night. We were somewhat worried about them, but they straggled in about noon.

We now had 160 men strong at the fire camp. The fire had run so far that we hardly knew where to start a new attack until we had done some scouting. One crew picked up the most advanced spots along the river while the other cleared the Jerry Johnson trail for a back fire, to be used if necessary. Fortunately, as often happens after a big run, the fire lay rather quiet that day.

In the afternoon I scouted up Warm Springs Creek, which comes into the river from the south two miles above Jerry Johnson. There is a splendid big hot spring which pours into the creek, and a big lick even larger than the Colgate Lick. I surprised two elk and three blacktail deer in it as I walked up the trail. As near as I could tell in the dense smoke, the fire had not gotten into Warm Springs Creek, but stopped in the ridge to the west.

That night at a council of war we decided that, in the hopes of a better break in weather conditions, we would try the same tactics again and start new lines on both sides from the river close to the fire, rather than to try backfiring. I got encouraging reports over the phone from the Clearwater and Selway. Paul Gerrard was making great headway along the Lolo Trail, moving his camp forward across one drainage after another, and had already reached the West Fork of Post Office Creek. The Selway had one 25-man crew at Gold Meadows and one at Flytrap Butte, and were gradually moving their lines forward along the north side. We had a few drops of rain at night which would hold the fire from running much for a day or two.

From the 26th to September 1, in spite of many setbacks, we were successful in driving the fire lines pretty well back from the river, and felt that we had checked the main run of the fire. There was still an unburned strip of a mile between the Colgate Springs fire and the main fire on the north side, so we moved crews back to the beach camp and the Post Office camp.

On the first we had a man killed. I had just been over a hot sector of line which we were having difficulty in holding, as it was on a steep slope below the fire, and big rocks loosened by the fire were rolling down across the line and snags dropping frequently. Two brothers were working with a saw on the line when a tall snag came down without warning. It caught one of the men before he could move, crushing his skull and killing him instantly. There is always a considerable element of danger on the fire line. In my own experience I have seen three men killed in this manner, and narrow escapes are frequent. Minor casualties, such as axe cuts, broken limbs and sprains, occur regularly.

On the eight of September, fire lines were connected with both the Clearwater and Selway crews, and the fire was under control. As near as I could figure, there were about ninety-five miles of held fire line. The fire-fighting forces at the end of the job totaled four hundred eighty men. After thirty-three days in fire camp I was glad indeed to take the trail to the Powell Station and a car into Missoula. A soft bed and a civilized meal with a white tablecloth seemed the most desirable things in the world.

**DAVID LAKE, District Ranger
LEWIS & CLARK
(Retired 1940)**

Harlowton, Montana
February 22, 1944

AN ADVENTURE IN FIRST AID

It was in October 1918. I was over on the north side of the Little Belts doing some range inspection, and since practically all travel was by saddle horse in those days I was riding.

I had stopped for the night with a local resident named Norton Meyers, as he had some range in mind that I was to look at the next day. And as the next day was Sunday we did not hurry much in setting out on our little trip. We left the ranch about 10:00 or 11:00, and rode up the little valley to the foot of the mountain where the piece of range was located. There was an old drift fence coming down from the mountain running almost due north.

The mountain is very steep at this point. It had been burned over about fifty or sixty years ago. Young growth was coming in quite thick, but there was considerable dry timber still to be had, and the settlers had made steep snake trails down the mountain side. They would take a team up, get together a snake load of poles, and drag them down. Pretty dangerous business, and awfully hard work - but they wanted wood. Well, on this particular day Norton Meyers and I had ridden to within a half mile of the drift fence when we thought we could hear someone calling. I should here state that the day was clear, quiet and warm - very warm. We listened a bit, thought we were mistaken, and went on. But we heard it again, and it seemed to be coming from off the mountain and very high. Finally we could make out, "Help! Help!"

We hurried over to the fence, and there being no gate, we tied our horses and proceeded on foot. It was a tough climb, and Mr. Meyers, a man around seventy, could not keep up. I could now see a team, standing quietly. Next came in view a load of poles, the team still hitched to them. And last, a roan showed up, lying on the mountain side. He was hard to see due to the brush.

Upon reaching him, I found the man was a local settler named Al Morgan, and that he was badly injured. His leg was broken, and the bones were sticking through the flesh. I saw we were in for a lot of difficult work.

Morgan was coming down the trail, riding the snake load of poles, when, in making a turn, the load upset, pinning him underneath and breaking his leg. Well he saw the spot he was in, pinned under a load on the mountain side and alone. No one likely to come along, and no one likely to hear him. There was only one thing for him to do - get that load off his leg. So he called to the team, started them up, and they dragged the load off his leg, grinding up the bones so they pierced the flesh.

Well, I saw that something had to be done, and quickly. The leg needed some first aid, and I started to cut some splints, thinning down some poles.

Finally Mr. Meyers came along, and another man, Charles Litchfield, who had also heard the cries. Litchfield had nothing with him, so we sent him back for blankets and while going down he ran into another neighbor in a Dodge car. This was Frank Wilhelms, owner of the place. So in perhaps an hour Litchfield came back, and Wilhelms drove his car up the bench as far as possible and they both came up the trail on foot. I noticed Wilhelms was breathing hard, but being busy gave it no thought.

Anyhow, together we bandaged the broken leg, made a stretcher with poles and blanket, placed Morgan on it, and started down. The man in the lead, who was myself, had to hold his end of the stretcher about shoulder high, while the back end had to be carried just off the ground. It was really hard going. We had to rest every few minutes, and Morgan's leg had come to life and was paining a lot - about all he could stand.

There were two of us in front and two behind, and as we proceeded I noticed that the stops were becoming more frequent, and when we were about three hundred yards from the car Meyers says to me, "Wilhelm is about played out - guess he can't do any more. We three will have to take Morgan on down, dump him off the stretcher and go back after Wilhelms. I asked him what was wrong. He said, "Heart trouble, and this heat is too much for him."

So on we went to the car, and then back after Wilhelms, and in a few minutes we had two patients, one with a broken leg and one with a bad heart, and of the two Wilhelm was the worst off. His face and arms turned spotted, yellow and black, and he was gasping for breath. And again we had to do something and do it quick.

Wilhelms finally managed to say that if he had some of his heart-strychnine tablets he would be all right, and he asked someone to drive the car down to the ranch for some. But none of could drive that Dodge with its back-action shift.

My saddle horse was about a quarter of a mile to the east on the other side of the fence. I got hold of a pair of pliers, ran to the fence, cut it, and started down the country on a dead run. About half-way down I met Wilhelms' wife coming afoot, she having suspected something wrong, since her husband had not returned as planned. And she had the heart tablets. Well, I grabbed them and raced back, arriving just in time. He took one, and then two, and in ten minutes he was as well as ever.

We put Morgan in the car, and Wilhelms drove him down and on to Lewiston. And with the exception of Norton Meyers, all parties are still living.

**FRANK F. LIEBIG, RANGER
FLATHEAD NATIONAL FOREST
(Retired 1935)**

Kalispell, Montana
January 1944

Dear Mr. Kelley:

Your letter of December 29, 1943, at hand.

I am no writer, but will make a stab at it, and hope it will not all go into the waste basket.

In 1898-1900 I was a foreman on a cattle ranch near the southwest corner of the Bearpaw Mountains, about sixty miles east of Big Sandy and close to the edge of the Bad Lands. I didn't like this country as there was not enough timber to suit me, so I went back to the west side of the Rockies and stopped at Belton, Montana, to look around. This was in August 1900. Incidentally, the Great Northern depot at that time was a derailed box car. Here in Belton a small oil boom was in progress. Some parties had found oil seepage around the Kintla Lakes on the North Fork of the Flathead River not far from the Canadian boundary line. Some men from Butte were in Belton, going up to the Kintla Lakes to take up oil claims. The people hired me to survey out their claims, which I did for four months.

After that period I quit the company and went on my own hook - even took up oil claims in the Belly River on the east side of the Rocky Mountains which is now in Glacier National Park. I made this trip to the head of Lake McDonald by canoe, thence walked up McDonald Creek for ten miles, thence Mineral Creek, to the head, and, crossing the Chiney Glacier, hit the head of the Middle Fork of Belly River as far as Glens Lake and the Canadian boundary. I made the foot of Lake McDonald my headquarters.

In the early spring of 1902 on one of my trips to the foot of Lake McDonald, a man was waiting for me who said his name was F. N. Haines and that he was "looking for a good man that would like to work as a Forest ranger for "Uncle Sam." He said he had heard much of me, that I didn't drink or get on a spree, and the main thing was that I knew the country and was not afraid of anything. He then asked me if I would like to tackle the job. He said the pay was \$60 a month, board myself, and furnish a horse or two. I told him I made twice that much with my oil claims. But he insisted that I should take the job, as there would be some promotion and higher pay if I stayed with the Service. So I finally consented and went with him to Kalispell where I had to fill out several forms nearly two feet long and go before a notary public, also get my citizenship papers all fixed up, and then the whole works was sent to the Department of the Interior in Washington, D. C. This was about the end of March or first of April 1902.

After that I went up the North Fork and the east side of the Rockies, and forgot all about my ranger's job. When I finally came home to the foot of Lake McDonald, I found in the Belton post office letters from Washington that I was a Forest ranger for over a month, and had to go to Kalispell to take the oath of office and get more definite instructions.

The Supervisor gave me a notebook or two and a nice shiny silver badge. It said on it, "Department of the Interior, Ranger." The Supervisor also gave me a couple of big sheets or forms, on which I had to state what I did every day, and send the sheet in at the end of the month to Kalispell. This report was sometimes half a month late, and the officials in Washington could not understand why I wasn't on time. I guess they didn't know that I had half a million acres to patrol, with very few trails in the area.

Then the Supervisor gave me a double-bitted axe and a one-man crosscut saw and a box of ammunition for my 45-70 rifle, and told me to "go to it, and good luck." He said, "The whole country is yours, from Belton to Canada and across the Rockies to the prairie or Waterton Lake and the foot of St. Mary's Lake." It comprised nearby the present Glacier National Park.

The instructions were to look for fires, timber thieves, which were plentiful all along the Great Northern Railway, and to look for squatters and game violators. I sure had my hands full, and then some.

A ranger and a mounted police were on the same footing. People always liked us a long ways off. More than once I have been waylaid, but, like the preacher and the bear, the Lord was on my side. My reputation as a good shot or Uncle's badge buffaloed the trespasser, and I always came out on top.

I guess the only time I was a little worried was once when word was brought to me by some homesteader that a bunch of Cree Indians had come across the Canadian border on the North Fork with about 10 or 12 lodges and 40 dogs and were killing all the moose and smoking the meat. I sent word to Ranger Herring, stationed at Fortune, to meet me at Round Prairie near Bowman Creek. I also took F. Geduhin, a homesteader from the head of Lake McDonald, and we all met at the place mentioned.

F. Herring was one of Roosevelt's Roughriders, and a quite imposing figure. He generally rode a dark bay horse, decked up with a silverstudded bridle and martingale. He wore mostly high-top boots, a big 44 strapped on his belt and a 45-70 in a scabbard, and he wore the ranger's badge always in plain sight, and a big Russian wolfhound was his steady companion.

Well, to make the story short, we found nine tepees north of Kintla Creek near a big willow flat. And we found plenty of meat over some poles with a fire underneath. Ranger Geduhin held my horse while I walked up to the tepees, where three or four Cree Indians were cutting up some meat. Ranger Herring rode just fifty feet behind me, his rifle all ready for action. I had my rifle in my hands too. When we got close to the camp we were met by about twenty or more dogs. Men came from everywhere, and all the squaws and kids ran into the tepees.

I hollered for the chief to come out. Finally a diseased-looking Indian stepped out and made himself known as the responsible party. I told him that he came across the line and not to kill any more moose. He said they had had a fire across the line which drove all the moose into the United States and they were hard up for winter food. I told him again that they ran all the game out of the country with their dogs.

Some of the Indians didn't want to go. I told them they had to break camp next morning or we would kill all the dogs. The Indians could not exist without the dogs. These dogs were trained to surround a moose and hold him until the Indian comes up and kills him.

We went to their camp next day about the middle of the forenoon, and no signs of breaking their camp. This time Indians were hiding behind tents and trees, no squaws in sight, but plenty of dogs. The old Indian chief was there to meet me and said they couldn't move for a week yet until all their meat was cured.

First thing three or four shots crashed out, and a couple of dead dogs rolled on the ground. Ranger Herring couldn't stand it any longer, and wanted to mop up all the dogs. I got ready for action also, thinking that the Indians sure would get even with us. So I hollered to Herring and Geduhin to hold their fire for a minute to see what the Indians had to say. Everything was confusion in the camp, and I thought lead would be flying in our direction any second. Then the chief hollered and told me they would move immediately.

The lodges went down, and in three hours they were on the trail up the North Fork and across the Canadian border. We hung around for several days, but the Crees stayed away.

I got the cramps in my legs in the ice-cold water. My legs refused to move, and I had to drag myself on my hands to the shore in about 20 inches of water. Herring just got across, when he was looking and saw what happened. He rode the horse right back and caught me just in time and dragged me to the shore. I lost my memory for 20 minutes, and when I came to Herring was rubbing my body and legs to get circulation in my body started. After an hour I was in shape to hit the trail again, and had quite a stretch of the fire surrounded when the settlers arrived. One settler had a horse which didn't mind a double load in crossing the river, and I sure made use of it. The fire was either a lightning hangover, or started by hunters. I think it was the latter.

Our first ranger meeting, if I remember it right, was held at the foot of Lake McDonald in 1904, with about five or six assistant rangers helping out, a Mr. Sherman and a Mr. Clapp from Washington, D. C. visiting us, and mostly supervising the meeting, telling us there would be a great change in the Forest Service in the near future, which was true. The very next year the Forest Service was transferred from the Department of the Interior to the Department of Agriculture.

Under the old Department our Forest was called the Northern Division of the Lewis & Clark Forest Reserve. The present Flathead and Lewis & Clark Forests were once one Forest and called the Southern Division of the Lewis & Clark Forest Reserve. Its first Supervisor was a man by the name of Moser. He lived in Ovando, and he made the round trip through the Forest once in a year - at least I only saw him every other year in Belton. And the first Supervisor stationed in Kalispell was Page Bunker.

A man by the name of B. Daughs started at Lake McDonald as a guard, now retired also, helped me in the early days of 1904-06 on trail work. We were working at one time on the Continental Divide near the headwaters of the Belly River and Mineral Creek when we spotted a big smoke in the North Fork Valley between Quartz and Bowman Creek, so we cut across country, below

Vulture Peak and down Logging Creek and Lake. The shortest distance not over 20 miles, but what a country. We made it, but that was all. Horses nearly all in, and ourselves too. Not much clothes left on us either. Half the time a trapper's trail and the other half a mountain goat's trail. And when we finally got to the fire a thunderstorm came up. Lord, how it rained, and how cold we were. We didn't say much, but we thought a lot - nothing pleasant either.

In 1905 or 1906, I made a round trip across the Rockies and back via Flattop Mountain and down to Waterton Lake, where the million-dollar Prince of Wales Hotel is now. At that time there was only a dim trapper's trail to follow up and a trapper's but to stay in overnight; but as a rule I preferred to stay in my small tent, which I always carried on my pack horse. On these trips I stayed quite often overnight with the Mounties in the barracks at Pincerton. These redcoats were sure a fine class of men and helped me out on several occasions, one time even putting out a small fire for me. I was treated like I belonged to them, and they were much interested in our affairs. I used to stock up with grub at a store in Mountain View, a Mormon settlement near the Belly River, and always found one or two redcoats.

The very next year Ranger Herrig saved me from drowning. It was in October, and bitterly cold nights. Sheet ice was floating down the North Fork. Riding up the river, I saw a big smoke rising up in the Coal Creek area on the west side of the river. I rode to the head of the Big Prairie to get a couple of settlers to help me on the fire. Just before I got to the place the horse stepped in a badger hole and nearly broke his leg. He was useless for a week. When I arrived at the homesteader's place nobody was home. I put the horse in the corral to look the fire over on foot.

Before I got to the river here comes Ranger Herring to pay me a visit. He saw the smoke also. And we decided to tackle the fire at once. We got a mattock and a couple of axes and left word for the settlers to follow when they came home. When we came to the river crossing, which was about 100 yards wide and 22 feet at the deepest place, I had to wade across the river, as his horse would not stand for a double load. So he crossed over with the horse, and the big Russian wolfhound, and myself following. I had off my shoes and pants and underwear, to be dry when I got over. Before I got two-thirds across hanging around. One overnight stopping place used to be at Babb's near the foot of the lower St. Mary's Lake and back into the good old U.S.A. Here we had a small sawmill near the lake and I had to check up on the timber and stumpage. At the narrow on upper St. Mary's, another old hut provided shelter for the night. Sometimes I stayed in the old mining town Altyn if I returned over Swift Current Pass. By St. Mary's Lake I came out over Gunsight Pass and Sperry Glacier basin and thence to Lake McDonald.

On one of these trips coming in across Gunsight Pass, I came in late one evening into Sperry Glacier basin with my horses, ready to set up my tent for the night. I saw a crowd of people a little ways off and heard someone saying, "There is the ranger now." And soon some people came running over and said a woman had fallen into a crevasse in Sperry Glacier and they didn't know how to get her out. In the meanwhile they had sent a man down to the hotel ten miles away to get some ropes. No telephone on the Forest yet. The first telephone was installed from Belton to the hotel in 1910.

When the people told me about the woman falling into the crevasse, I turned the horses loose in a hurry, and grabbed two lash ropes and the ax, and told the men to come on. The place was a

quarter of a mile to the edge of the glacier, and about 250 yards across the ice to the crevasse. I cut a stunted green fir tree four or five inches and five feet long, and had the men pack it along. When we got to the place three or four men stood at the place where the woman slid in. Two women and three more men came along, with them a minister of the gospel by the name of Falls - a real mountaineer. He died in Seattle two years later. I selected a place on the lower side of the crevasse, and set the green post into the hole and packed ice all around to make it fairly solid. Then tied the two lash ropes together and tied a number of knots into the rope for a good hand hold. Then tied the rope to the post sticking above the ice and told a couple of men to hang onto the post so it couldn't slip out and threw the rope into the crevasse.

I could see the woman lying almost horizontal in the ice. The crevasse was about four or five feet wide on the top, and came together to a knife edge on the bottom, about 35 feet down. She was wedged in at about 30 feet, and dead as a door nail. (So we thought.)

I slid down the rope, and had some sweat worked up, and when I got down (Was it cold!) I tried to hang onto the rope and pull the woman loose, but couldn't budge her. The walls of ice were smooth as glass and I could not get a foothold. We thought she was dead anyhow, so I stepped on her body to rest my feet, and told the men to haul up the rope and send the ax down, which they did. Then I chopped a hole on each side of the ice big enough to put my feet in for a hold, then sent the ax up again to the top. When the rope came down again I started to pull the woman loose and nearly pulled her arm out, she was wedged in so tight. But I finally got her loose, having a foothold chopped in the ice, then managed to get the rope around her waist and the men pulled her up to the surface and then let the rope down again.

I was so frozen by this time I was in doubt that I could climb the rope, so I put it under my arms and was hauled out by the men too. When I got out I could hardly stand up I was so cold, and had to stamp around a bit to get my blood in circulation again.

We had plenty of help by this time. Someone brought a lantern and candles from the camp, and it was getting dark. There was no stretcher, so four men got hold of the woman, one on each leg and one on each arm, one ahead with the lantern. When we got to the edge of the ice there was a narrow trail leading down through the rocks and around some cliffs, one over 20 feet high. We thought it would be safer for all of us to let the body down on our rope over the cliff. Someone went ahead to receive the body below. They had a palouser going, and we could see the light below. When the body was half-way down, the woman began to spin around and hit her head on the rocks, cutting quite a gash in her head, which must have brought her to. Because she let out an awful yell, which scared us half to death, as we had all thought she was a goner for sure. Then she fainted again.

We got her to the camp finally, where they had a big fire going and lots of hot coffee and lots more of hot drinks, and we all had our share of the hot brandy. Even the minister of the gospel and yours truly, even if I was on the water wagon. I had my share and don't know today how I got into my sleeping bag only half undressed. I think someone else must have helped me.

A doctor came up towards morning and pronounced the woman O.K. Some men and women filling her up all night with hot brandy, until she was glorious drunk. We sure had a late breakfast

next day. All thought I had done a wonderful job. But I pulled out ahead of the crowd in order not to attract so much attention. I didn't even stop at the hotel and went direct to the ranger station. The woman never even said thank you for getting her out of the glacier. She surely would have been dead if she had stayed in the ice all night. But such is the world.

In 1903, I came across the divide from the Camas Lakes on foot, and cached my canoe in the woods to cross Lake McDonald to the other side. A big swell was on the lake and four-foot waves, but not dangerous for the canoe, and I could handle it without trouble. When I got nearly across I saw a bunch of people standing on the shore with their arms stretched out as if they were pointing. I thought at first they were watching me and the canoe disappearing in the trough of the waves, and then on the crest of the next one. It finally dawned on me that the people were pointing in another direction. I began to look around, and when I came up on top of a high wave I spotted a rowboat full of water and a man and woman hanging on to it.

I worked the canoe close to the outfit to look her over. The people were pretty well chilled and nearly done for in the cold water. The woman said she could swim a little, but the man could not. When I got real close, the woman let loose of the boat and grabbed the canoe, nearly upsetting me. I had to hit her on the hands with the paddle and once over the head, partly stunning her, before she let loose, and moved to the end of the canoe. It was a ticklish business to get her into the canoe without upsetting. I got hold of her hair and, watching my chances, I told her to kick hard with her feet, which she finally did, and I managed to drag her into my canoe. I also got it half full of water, and I had to bail water with a five-pound lard pail to beat the band. The woman had fainted when she got into the canoe.

After I had most of the water out so that I could manage my canoe again, I went carefully up to the man and tried to give him the rope from the canoe to hang onto so that I could tow him to shore, but he was ail in and would not let loose of the boat, although every other wave went over his head. I finally got the rope around under his arms and told him to keep his head above the water, and started for the shore.

It didn't come out the way I had it planned, as the man rolled over in the water and was half drowned when I reached shore. Several men, women and children were on the beach, and three or four rowboats, and the men were afraid to go out and help. They sure would have perished if I hadn't come along. Neither one of them ever said "Thank you." They all thought it was a ranger's job to do all those things. The woman is still living here yet: in Kalispell.

I think it was late in the fall of 1907 when I received a letter from the Supervisor to meet Forester Pinchot and a party from Washington, D.C., at Swift Current Pass to take them down to Lake McDonald and thence to Belton. It was a two-day trip from the head of the lake to Granite Park, where I had an old mining cabin which was ready to fall in. Here was good horse feed. From the cabin it was about two miles to the pass.

During the night the weather changed, and by noon a regular blizzard was raging. Nevertheless, I hit the pass by noon and hung around there for several hours, when I finally gave up, intending to go back to the miner's cabin. I knew the party never could make it over the pass in such a storm. When I turned back I couldn't see 25 feet ahead. The horse trail was obliterated by the snow, and

everything looked alike to me, and the horses refused to go ahead. The storm was getting worse. I had to get off the saddle horse and lead both of them. I was floundering for over an hour in the snow when I realized I was lost. I found a clump of scrubby whitebark pine, and got some shelter. Here the horses quit altogether and turned their heads with the wind. I wanted to go alone to hunt for the cabin, but was afraid I couldn't find my horses again.

I stuck it out for an hour, trying to figure out where I was. It was an area only two square miles, but, in a snowstorm like this, a quarter mile is plenty big enough. I finally dragged the horses after me again, and by good fortune hit a patch of heavy timber that looked rather familiar to me. I left the horses and began to scout around, and found a blaze on a tree and discovered I was in the trail. I hit the old cabin in 15 minutes. I went back at once and got the horses and gave them a feed of oats in a sheltered place behind the cabin.

And how the storm raged all night: Three feet of snow in the morning, and the blizzard stayed another day. I had to go half a mile before I left Granite Park to get down into the valley. It took me one hour to make that half mile. By noon I was on the bottom of the valley and found only one foot of snow, and hardly any wind, but you could hear the storm still raging around the peaks.

A week later I received a letter stating that the party gave up the trip across the Continental Divide after they got as far as to the foot of Swift Current, the miners advising the party that it wouldn't be safe. A good thing they took the hint.

More than two dozen horses lost their lives over the cliffs and one person was killed while I was ranger over that Continental Divide district. And all these worries could have been avoided if we had had a telephone in those days.

I could tell lots of bear stories, but you will no doubt have lots of them from other sources. I have a story about a Rocky Mountain goat that might be of interest to you, but it was not to me.

I had always a craze to have a pet bear or deer or something around the station. In 1905 or 1906, Supervisor F. N. Haines and myself made a trip after Christmas to Avalanche Lake to see if a bridge could be built across the creek without much expense. On the head of Lake McDonald we had about a foot of snow, but near Avalanche Lake there was about three feet and we had to use our snowshoes. When we got to the foot of the lake we saw a bunch of mountain goats crossing on the ice, going from one shore to the other. The goats had a regular trail through the deep snow, only their backs sticking out above the snow once in a while.

I said to the Supervisor. "Here is a chance to take home a live goat without much trouble." Mr. Haines was skeptical, and said I couldn't handle one of the big goats alone. If I picked a real small one, we might get one to the station between us two. I told him, "Just watch my smoke." I was in good shape them days and didn't take my hat off for nobody.

Anyhow, I cut across with my snowshoes and headed the goats off before they reached the shore, and fell on the nearest goat that was handy, and it happened to be a good-sized one at that. There was no time for a selection. In that narrow trench were goats everywhere, one climbing over

another to get away. I thought I surprised the goats, but the surprise was on me. I was on top of the goat when I started, trying to hang on to his head; the next thing I knew I was on the bottom and the goat on top. I had snow and goat hair and what-not in my eyes and down my neck. He tried his darndest to hook me with his sharp horns, and I had my hands full to keep him from hooking me in the face or other parts of the body. His feet got lodged in the webbing of my snowshoes and tore most of the webbing out. Half of my pants and coat was already gone when the Supervisor came up to help me. But what did he do? Lay down in the snow and laughed until the tears ran down his cheeks, and me getting more mad every minute. Finally one snowshoe, came off, and not long afterwards the other. After that I could handle him better and straddled his back and just watched out for his horns. He could kick like a mule, but his hoofs were not as sharp as those of a deer. I rode the blooming goat back and forth in that ditch until he was plumb petered out, and the Supervisor yelling, "Ride him, cowboy!"

I told the Supervisor to bring my pack sack and what was left of my pants. I had some rope in the pack sack and fixed up one of my broken snowshoes and tied a piece of rope around his horns and one piece around his hind leg. I thought we could lead him home. It worked fine in the deep snow on the ice and while the goat was still petered out. But when we hit the timber and solid footing the goat changed tactics. He was leading us, instead of us leading him. Once or twice the Supervisor couldn't hang on to his rope, and the goat charging me, and I had the choice either to play hide and seek behind a tree or lose another piece of my pants, which, by the way, the Supervisor said "belonged to the Adam and Eve variety." I finally tried to put my coat over his head. I thought he would lead better; and in the shuffle the rope came off his hind legs, which the Supervisor had to hang onto to keep him from running me over. After the rope came off he was too dangerous to handle, so after he got tangled up in the brush with the rope on his horns I managed to cut the rope and set him free. It was just as well. If we had had to tug the goat another mile we would have had no clothes left on except our rubbers and socks, and they were all wringing wet.

The very next spring I packed down a goat kid from above the station in my pack sack. But as he refused to drink any milk, in a couple of days I packed him back up again on the hillside where several nanny goats and kids were feeding. I had quite a time getting rid of the kid, as he tried to follow me. I finally stuck him behind some big rocks and ran a little distance and when the little fellow couldn't find me he wandered off. I was watching, and when the big nanny goats spotted the little kid running around, came over to investigate. When they got near enough so the little kid could see them he ran over to one of the big nannies and wanted his dinner right away. But she bumped him so hard that he rolled over several times. Another nanny came up and smelled him all over, bumped him once or twice but not very hard, and by good luck took him over and let him have some of her milk. Boy, was the little fellow hungry: It was a sight worth seeing, and I swore never to take a little goat home again. I had dozens of chances afterwards. I even had young mountain sheep in my hands, but I never took one away.

I have one more item I would like to mention. Our regular full-fledged ranger meeting was held on April 4, 1910, at the Point of Rocks Ranger Station near Olney, Montana, on the Blackfoot National Forest. I still have the photograph (a four by six-inch) in my album, and I prize it highly. I don't know who has the film. I have all the names of the men and the Supervisor and

Mr. Silcox, at that time District Forester. Mr. Silcox, with his derby hat, looks more like a lawyer than a forester.

Best wishes to you all.

Sincerely yours,

/s/ FRANK F. LIEBIG

LIONS

By Frank F. Liebig

In the winter of 1905 we had early snow. By the end of November there were two feet, and snowshoes were necessary for travel in December. I was stationed at the head of Lake McDonald, now part of Glacier National Park, and had orders to estimate the timber in my district. I started the work on McDonald Creek and along the slopes of Mount Stanton and Mount McPartland. This was a great place for mule deer to hang out all winter. The benches and cliffs extend down into the timber and with deep snow the mountain goats come down there. I have seen goats and mule deer several times not more than a few hundred feet apart. I ran across lion tracks the first day, and found the remains of two deer killed by them. After finding another the second day, I decided to bring a couple of number four steel traps, which I set around the carcass in hopes of catching the marauder. During that day at the foot of the cliffs, I found where coyotes and a lynx had been digging to get at a goat killed by the lions.

In one more day I finished the work on this mountain, but continued to use the same snowshoe trail coming to and going from work. The next morning I was prepared to shoot my lion in the trap, but there was only a coyote. Coming home that evening, I passed the trap to take my coyote hide, and saw where a couple of lions had come close to the traps during the day, but a raven got ahead of them and got caught in the trap. Cursing my luck, I set the trap again, but during the next few days nothing showed up. Then I caught a lynx, then drew ciphers for a number of days. On Sunday I went out on this mountain to get my deer, thinking the lions might get them all if I waited longer. The hunting season was open at that time until January 1, and the limit was three deer. I could stir up nothing. The lions had them scattered all over the mountain, and they were very wild. Several goats showed themselves, but I did not care to eat them unless I had to. I found several more carcasses of deer killed by the lions near a thirty-foot cliff where a well-used runway in dense maple brush passed right under a bench along the margin of which was a fairly dense growth of fir trees. The deer were browsing heavily on maple at this time of the year. I shifted my traps to the last killing, but got only a coyote.

Another week went by and no lions. As the season was getting late, I was determined to get my deer soon, for otherwise I would have to go down to Belton for meat, a distance of fifteen miles. When Sunday came, the wind and clouds suggested more snow. After finding my traps empty, I made a big circle onto the cliffs and worked down to the lower benches, against the wind. All of a sudden my eye caught a gray or brownish object, apparently a deer lying down. To make sure of my shot, I got as close as possible. Things did not look right. I could not see the big ears. Taking advantage of a few friendly bushes, I got closer. Imagine my surprise at discovering a big

mountain lion lying on the edge of the cliff right above the deer trail, looking right at me. The movement I had seen was the end of his tail, just like a house cat ready to spring at a mouse. I shot. He jumped, hitting the ground at the foot of the cliff with a snarl and scream. I shot quickly once more to make sure he was my lion. Five or six deer ran away. My first shot had pierced the lion's nose and come out the side of his chest. He had seen the deer coming on the trail and was so interested lying in wait to spring on them that he had not seen me, and I was so interested in stalking him that I had not seen the deer.

I skinned my big tomcat, took the hide home, and during the night we had more snow. Visiting the place next day, I saw where his mate had come right to the carcass, but had not eaten from it. She evidently left the country, for I never saw her tracks again. These two lions had the band of deer just scared to death. From about twenty-five, the number in three weeks dwindled down to about six. And besides this, a number of goats had been killed.

Above story sent Regional Office with letter of February 26, 1914, in which Mr. Liebig wrote:

"It is not very often that a fellow has a chance to kill a mountain lion without some dogs along. I sent this same story in a number of years ago to one of the hunting magazines (I believe it was Field & Stream) with the permission of Supervisor Hornby.

"Was out in the Thompson Lake country a week ago and following a mountain lion all day, but didn't get a sight of him, as he was longer winded than I was."



Blackfoot National Forest Ranger Meeting at Point of Rocks, near Olney, Montana, April 4, 1910.

From left to right, standing: Rangers Brunner, Frank F. Liebig, Jos. C. Cosley, Theo. Christensen, Jack Wise, Raymond L. Woesner, Eastland, Ray E. Taylor, and Forester Silcox.

From right to left, sitting: Supervisor F.N. Haines, Herbert H. Bissell, Peter DeGroot, Fred F. Clark, Bill Owens, Fred Herring.

(Contributed by Frank F. Liebig.)

JOHN W. LOWELL
Forest Supervisor Bitterroot
(Retired 1935)

Missoula, Montana
January 15, 1940

**EARLY HISTORY OF THE U. S. FOREST SERVICE AND EVENTS LEADING UP TO
THE AUTHORS CONNECTION WITH IT**

By John W. Lowell - Dedicated to:
My best of friends, Elizabeth Flint
and
My old friend and chief, Gifford Pinchot

In the early days of 1904, I was looking for something to do other than the range business which I felt did not hold any future to me that was worthwhile. I had heard occasionally about the Forest Reserves and some of the troubles that were brewing between the cattlemen, sheepmen, and the Government in what we called the high range country, much of which was set aside as Reserves. It seemed to me that here was a field that might be interesting and worthwhile; I had the vision that I might fit in as an experienced stock man, or an intermediary between the old range men and the Government which I had heard was withdrawing the timbered and partly grazing lands with the idea of protecting them against devastation.

During the past decade, my father had been a legislator for Colorado, later State Examiner of Public Institutions and Auditor of State. He had some political friends with whom I had become fairly well acquainted; a man by the name of Brooks was Congressman from Colorado, and his chief lieutenant in Colorado was John F. Vivian who was a political friend of my father's. I went to Vivian and told him what I wanted. He wrote Brooks, and in a short time I was notified by Brooks that he had requested the Supervisor of the Battlement Forest Reserve, whose headquarters was at Mesa, Colorado, to put me on as Assistant Forest Ranger as soon as possible.

In due course of time I received a letter from Supervisor A. R. Craig, who was also a country doctor that he recommended me for appointment effective June 1, 1904. I was not too well pleased because I knew Craig well and knew him to be one of the cheapest kind of politicians and a quack doctor. However, since the country surrounding the Battlement Reserve and even a part of the Forest itself was my old stomping ground, I accepted the appointment and so went to work for the Forest Service, then known as Division R of the Interior Department. In the meantime I had looked up the matter more and through a friend who was a Ranger on this Forest, I learned that the principal duties were riding the range, marking trails, looking after small timber cuttings and special uses. A lot of this was all "dutch" to me, but I thought I could pick it up if given the chance.

So on the morning of June 1, 1904, I reported to the Supervisor. I knew he did not like my appointment because my father belonged to the Free Silver branch of the Republican Party and

he to the Gold fraction. Our conversation was short; he did not give me any information as to my duties except to tell me that I was to report to Ranger Dave Anderson, and the one thing to remember was I was to go to the Forest with him and stay away from the towns entirely through the summer periods. He gave me a marking hatchet, a Use Book (one of the old red-backed ones of about twenty pages), which was supposed to contain all one needed to know about the job, a Scribner Decimal C scale rule, some pencils, writing paper, envelopes, and free use timber application forms. All other equipment and food supplies and horses I had to furnish, all for the munificent sum of \$60.00 per month.

It was fortunate for me that I was assigned to a ranger district as Assistant Forest Ranger under my old friend. Dave Anderson; he was an uneducated man, could barely write and sign his own name. We were supposed to keep a diary record of each days work and happenings and I wrote both his and my own diary at the close of each day. He became dependent upon me to a large extent for such records and reports as we were required to keep which were simple in the extreme.

The summer was spent almost entirely in marking trail routes; sizing up cattle on the range; occasionally making out an application for a permit to cut free use timber which had to go to Washington for final approval after passing through the supervisor's office, then finally turning over the permit to the applicant and either marking the timber for him or designating the area from which it was to be cut; examining special use cases or areas and reporting to the supervisor; occasionally going to the nearest town for supplies; looking after our saddle horses and pack horses; and quite frequently resting.

During these periods of nothing else to do, I had the habit of fishing, hunting, or just riding around to see what I could see, while Ranger Anderson either made a trip to his ranch for a day or two, or went to town for a change. The result was that without purpose to do so I knew more about the business and the Forest than he did. My past experience on stock ranges led me to observing the effect of stock grazing in this comparatively high country. At this time certain portions of the stock range were badly overcrowded and little to no use made of just as accessible ranges adjacent to the overcrowded area. Here was opportunity to plan distribution of stock to arrive at fairly even distribution of stock on the range, and I began to talk distribution of salt and locating cattle on the salted areas. Salt had been regularly placed on the ranges but only along streams at handy places to drive to and dump the salt, with the result that the stock concentrated around the salted areas, with ever-widening circles of badly over-grazed and tramped-out range. Cattle had to go increased distances each year for feed and yet the nearby areas around the salt grounds got worse from tramping of stock back and forth; a study of these conditions stood me in good stead later although I was unable to put my ideas over at the time.

The timbered areas on the Battlement Forest consisted almost entirely of subalpine type (Douglas fir, balsalm, Engelmann spruce and aspen). The largest and most extensive aspen stands occurred on this forest that I have ever seen. While this cover had a high value for watershed protection, it had little commercial value. Timber sales were small and nearly all products of local mills were used locally. So for the first few years of my service, I obtained only rudimentary knowledge of timber management. Such sales as we had were handled without any

particular restrictions, and such restrictions as there occurred in the contracts were not sufficiently supervised to obtain compliance.

One of our diversions, either while marking trails or just riding around the country was killing porcupines. We regarded them as a pest because of their habit of eating up our saddle or pack saddle leather unless they were hung up out of reach, and girdling the tops of young forest trees during the winter; they would eat both the outside and cambium bark off sometimes of a large group of young trees, completely girdling the tree, and the entire tree or at least the top would die. In all my after experience on various National Forests, I have never seen as many porcupines as I did in this first summer; it seems that here was an area that they thrived on and multiplied so fast that it was hard to keep them cleaned out. I don't know how many Anderson and I killed that summer but it ran into the hundreds. A number of local residents criticized us for our action in killing them because of the oft repeated story that once upon a time a man was caught in a big snow storm late in the fall in the high country and would have starved to death if it had not been that he killed a porcupine and cooked it which saved his life, there being no other animal life that he could kill.

In spite of lax game and fish laws and the lax enforcement of such as there was, this forest area abounded in fish and game, the game animals consisting of deer in plenty, a few elk and a very few moose. Blue grouse and pheasants were plentiful as were also native trout - rainbow trout and Eastern brook trout in the numerous streams. I believe the country surrounding the Battlement Forest at that time was the best watered country I have ever seen. The Forest area seemed like a great sponge that absorbed the heavy rain and snow that occurred, letting it out gradually during the dry summer period through the many streams that flowed from the Forest to the surrounding agricultural country, thus furnishing water for all the available agricultural lands and making prosperous farm homes. This situation helped me more than anything else to gain a concept of what conservation of cover on the high forested areas meant to the continued welfare of the immediate surrounding country and the nation as a whole.

Of the nine Forest officers who were employed on the Forest at that time, including the Forest Supervisor who would make ten, there was only one man besides myself who seemed interested in conservation in the broad sense and could at all vision the future development of the Service; I met him before I went to work in the Service and had opportunity to converse with him the following year after I was furloughed. This man was W. R. Kreutzer, then a Forest Ranger and afterward Supervisor of several different National Forests and who reached retirement age and retired about 1938 after about 35 years of service. To him I owe much of my early information on subjects that were new to me.

Since my previous life had been spent mostly out of doors, I became intensely interested in the field life of a Forest officer; much of the actual work was natural to me and I felt that I wanted nothing better than to do my bit for bringing about proper administration of our national resources as applied to Forest areas.

As the Ranger, Dave Anderson, also owned a small ranch and a small herd of cattle, we obtained our food supplies such as potatoes and other small fresh vegetables from his ranch which was closer to us than town. Anderson paid for all the food supplies and we split the cost evenly. We

bought no fresh meat as we could obtain without cost all the fish, grouse, rabbits, and sometimes larger game as we went about our work. Our fare was simple, consisting entirely of meat, vegetables, no canned goods except milk, sour dough bread and biscuits, a little dried fruit and game. At the end of the season my share of the food costs amounted to \$6.10 per month.

As this first season in the Service passed, my thoughts were mainly directed to the evident misuse of the range, lax administration of timber resources and the value of the Forest as a watershed protection. During the field season neither the Forest Supervisor nor any other forest official came into our district. It was a case of trying to work out our problems without any personal direction, our only guide, the use book previously mentioned.

There were nine forest rangers on the Forest at that time, for the administration of an area of about 600,000 acres, not much larger than the average Ranger District handled by one Ranger but with a number of summer temporary employees when I finally retired from the Service in 1935.

It was the custom to furlough a part of the Ranger force in the fall, about November 1, their furlough extending to March 1 of the following year. I was the first one of the nine men to be furloughed, and without any information as to whether I could return to the work the next year. During this five-month period I had never seen any other forest officer than the Ranger I was working under, and the circular letters or other information that came through were meager indeed.

Stockmen, ranchmen, and in fact the general public living adjacent to the Forest were antagonistic to the administration of the Reserves as they called them. We were rather outcasts in the community, looked upon as interfering officials that they could much better get along without.

At this time there were no sheep grazing on this particular Forest, so a few of the cattlemen were halfheartedly favorable to us as they expected we would not allow sheep grazing on this Forest Reserve. As a matter of fact the number of stock grazing on the Forest whose owners were mostly owners of ranches where they fed their stock in the winter, was sufficient to fully occupy all the available range and no sheep were ever permitted to graze on that Forest until after 1918.

I spent the following winter in Denver, Colorado, working for my father at the Denver Union Stock Yards, and could have continued in a good job there but that I had become interested in the general idea of conservation of natural resources and through some pressure I returned to the forest work on March 1, 1905.

My first job in the early spring of 1905 was to make a long trek with Ranger Henry Dingman, each of us with a saddle and pack horse, from Mesa, Colorado to Hotchkiss, Colorado, and then up Lareux Creek to the Lyman Rich Ranch which was located about eight miles south and down Lareux Creek from the southern boundary of Battlement Reserve.

Our job was to watch principally the Ed Hanson cattle and find out how many, if any, drifted onto the Forest before the opening of the grazing season (April 1st). Hanson owned about a

thousand head of cattle and had been trespassing on the Forest with them for some time. When we arrived, the entire southern boundary of the Forest was covered with from two to three feet of hard packed snow. We rode back and forth from the Lyman Rich Ranch to the Forest boundary nearly every day except stormy days until April 1st, and not a single cow or horse crossed the boundary up to that time. W. R. Kreutzer was the ranger, in charge of this part of the Forest at that time and he visited us from his headquarters at Paonia, Colorado, twice during this period. He had no authority over us but he had nothing much to do and just came to visit.

During these visits Kreutzer and I spent hours together, talking about the forests and the various things to be done on them in the future. He had previously been a ranger on the Pike Forest and had a fund of knowledge he was perfectly willing to impart to an interested listener. He told me that he could just as well have ridden down to Lareux Creek and examined the conditions once a week and saved us wasting time for two months since it was not possible for stock to get onto the Forest before April 1st, which was true.

While we reported these conditions to the Supervisor once a week by letter, he took no action to change the situation. I always thought that he was just keeping me out of the way. Dingman, the ranger with me, was a particular friend of his and was at all times cool and uncommunicative to me.

Our time for watching the boundary having expired, we went back to Mesa, starting on April 1st. I was instructed to go to Mesa Lakes and report to Ranger B. F. Jay who with all the other rangers on the Forest except Kreutzer, was camped in an old log cabin built by the owners of reservoirs there. The whole bunch of us spent about a month building a half mile of drift fence with aspen poles. This fence was built to keep Ranger Jay's saddle horses from drifting back to the low country when he turned them out to graze.

At this period the regular summer headquarters were located in some old log, dirt-roofed cabins and a small pasture to hold saddle horses as a part of them. The cabins did not belong to the Government but were occupied with the consent of the owners. The one exception was at the Grand Mesa Lakes Station where the rangers had built a one room cabin and pasture fence on the shore of Carp Lake on the Cedaredge District. I believe that cabin was built by Ranger Kreutzer with the help of other rangers in 1902, under the direction of W. T. S. May, who was the Superintendent of Forests for Colorado at that time.

About June 1, 1905, I was assigned as Assistant Forest Ranger to the Cedaredge District under Ranger Frank Barnes, our headquarters being a log cabin at Carp Lake. While Barnes later became my brother-in-law, I soon recognized that I had been assigned under him to get rid of me if possible; but in spite of the fact that he was a big bully, entirely uneducated, with only farm training, we made friends together.

I took the load of diary writing, making reports and keeping such records as we had off his hands; handled the timber marking and general dealing with the public, which was not much. He did the hunting, most of the fishing, and during harvest time helped Supervisor Craig put up his hay and grain crop on his ranch near Mesa - at the same time drawing pay from the Government.

While Barnes was away I busied myself riding the District, making notes on number of cattle seen in the different brands, examining special uses, and particularly picking up trespass cases.

During the season I picked up a number of cases where pastures were being used by stockmen without permit and in trespass, all of which I reported in detail and none of which were acted upon by my Supervisor.

About October 1st, without previous notice to us, Inspector Smith Riley rode into our station and happened to find us both at home. I learned later that Mr. Riley had been making an investigation of Supervisor Craig because of complaints that had gone in at headquarters. Mr. Riley was particularly interviewing rangers for two reasons. First, to get information from them about Craig; secondly, but maybe more important, to conduct a sort of personal examination of each ranger to determine his fitness and give him a Civil Service rating of some kind, or recommend dismissal, pending transfer of the Forest to the Department and placing the personnel under Civil Service rules.

Mr. Riley introduced himself to us by showing his appointment as Inspector signed by Secretary Wilson and a letter defining his work signed by Chief Forester, Gifford Pinchot. My first impression of Riley was that he was a cold, sharp, and unlikeable man; but I came to regard him very highly in later years.

After having dinner with us, Mr. Riley asked me to find something to do for an hour or two outside, but to keep within hailing distance to the cabin. So I went down to the lake shore only fifty yards distant, sat on a raft and caught a nice mess of trout for supper. In about an hour Barnes came out of the cabin and called me in. It was not a warm day but Barnes was sweating like an ox at work. We both went into the cabin together where Riley was pacing the floor, apparently in bad humor.

I was asked if I had written both my own and Barnes' diary record, and if so, why. I told him Barnes had asked me to do it as he could not get the thing down in very good shape, that where I knew what each of us had been doing I used my own information for writing, but when Barnes was away from the district or away from me, I got the information from him. He picked out a two weeks away from the district and asked me if Barnes told me what to put in the record when he came back, and my answer was yes.

Then he asked me to find various things that should be in our file record which Barnes could not find. He said, "In fact, Barnes doesn't seem to know anything about the records or the conditions on the district." At this time he sent Barnes out and Riley and I went completely through the records, which did not take long as they were meagre and simple. He seemed most interested in trespass reports and asked why Barnes had not signed them. I told him they were made while Barnes was away, and that from discussing these things with him I knew that he (Barnes) was not in favor of investigating or making reports on trespass. Riley said, "Apparently you have been handling everything on the district, and the ranger in charge doing little or nothing, even in the field." I made no answer to that statement.

I gleaned, however, that Forest Assistant T. D. Woodbury who had been assigned to the Forest that spring and who had visited our district once, had given Riley a pretty good idea of what to expect. Woodbury was comparatively young and somewhat inexperienced in the West and western ways, but a very intelligent and likeable person. He was the first trained technical man I had come in contact with, and I began through him to pick up knowledge of forestry in the technical sense. In return I took great pains to help him to learn the technique of the western man on range and camp life and the range stock business in general.

The first time I saw Woodbury was in May of this same year when we were building drift fence at Mesa Lake for Ranger Jay. He had just arrived and the Supervisor sent him up to us to get acquainted. He spent a week with us and much fun was had at his expense, by the old timers.

At the end of that week we were all going down to Mesa to spend Sunday except Ranger Jay. Woodbury wanted to return but had no saddle horse; Jay had brought him up in a buckboard. Jay let Woodbury have one of his driving horses with saddle and outfit. When we started, the rest of the men all went off at a gallop and Woodbury's horse started on a high trot which was all he could do except walk. We were going down grade and Woodbury was not used to riding; all he could do was hang onto the horn of the saddle and let the horse trot. Soon the rest were out of sight, I staying with Woodbury. We had to stop often for him to dismount and roll up his socks and put down his pants and drawers' legs as they kept rolling up above his knees with the result that by the time we got to Mesa his legs were skinned raw, his muscles all sore and he was indeed a sad plight. He laid in bed in the hotel for about two days before he could get around. Woodbury took it all in good part and appreciated my sticking by him, so our real friendship dated from that time on.

To get back to Riley - he left the next morning and Barnes was in a stew until about two weeks later he received notice of his dismissal from the Service. Craig was also dismissed the following spring, but in the meantime gave me all the grief he could. Craig notified me about October 15th that I would again be furloughed for the winter, but in the meantime we were all over at Debeque, Colorado (the nearest railroad point) to take part in the so called annual lion hunt which was staged each year by the stockmen and ranchers.

Here again I met Smith Riley who had come by train from Denver ostensibly to attend the lion hunt and get acquainted with the stockmen. On his asking me how I was getting along, I showed him the letter from Craig telling me I would be furloughed. He asked me if I could keep a confidence strictly, and when I said I could, he told me to go about work as usual, that I would not be furloughed, and that Craig would be succeeded by Ranger Dave Anderson as Supervisor within a short time. Pleasing news to me.

I spent the winter at the town of Cedaredge on the Cedaredge district without anything eventful happening and was promoted to ranger in charge of the district the following spring. In the spring of 1905, the Forests were transferred to the Department and all of us who were passed as satisfactory were blanketed over to Civil Service standing. Thus, thanks to President Theodore Roosevelt and Gifford Pinchot, political preference was practically at an end and remained so until the advent of Franklin D. Roosevelt as President in 1935.

At the same time my old friend Dave Anderson became Forest Supervisor, and T. D. Woodbury his assistant, with a change of headquarters for the Supervisor's office to Ranger Anderson's residence at Colbran, Colorado, where I resided for a number of years before entering the Service. Supervisor Craig remained an arch enemy of the Forest Service and particularly of Gifford Pinchot and Smith Riley as long as he lived.

Thus ended my connection with the Interior Department. My impressions at this time were that we had a fine leader in Pinchot, and that he might now be able to straighten out the inefficient administration that we had suffered under political preference control.

During the summer of 1906, as ranger in charge of the Cedaredge district, things began to open up for me. The change to the Agricultural Department seemed to step up the administration of the various Forest activities. Woodbury as forest assistant began to do intelligent inspection work which included training along his lines. While Supervisor Anderson was in the main dependent upon Woodbury, still he had had a lot of practical experience that kept him fairly well in line. Timber sale contracts were revamped and insistence on compliance with regulations began to be really effective.

Charging of grazing fees for grazing stock and holding permittees or others responsible for their stock drifting onto the Forest was arousing the stock men to real resentment. In the fall, Fred Light and others were making a hard fight to show that the Forest Service was trespassing upon State and individual rights and that owners were not responsible for their stock drifting onto the Forest Reserves. So started the famous Fred Light Case which was eventually carried to the Supreme Court of the United States and settled these questions in favor of the Government for all time.

While the Battlement Forest was not directly involved in these cases, I knew all the trespassing stockmen as I had ridden the range with most of them before entering the Service. I handled a few small trespass cases during this period, learned to handle timber sales in a small way, and got a lot of experience on special uses of which there were about 100 on my district.

Cattlemen had built a number of pastures for stock on the Forest, and these had to be investigated, placed under permit, and a charge made for annual use. In general, there was objection, but before the season was over permits were made, and a few were abandoned and the fences torn down.

At this time W. R. Kreutzer had been particularly obnoxious to the stockmen and had been transferred the fall before to the new Gunninson Forest. He was soon made Supervisor of that Forest. Kreutzer's case was an example of what followed in many cases within the next few years. All we had to do now was to attend to our jobs, be fair and cooperative with the public, and enforce regulations. It soon proved that if we did this a bunch of dissatisfied users could not go to a Congressman and obtain our removal. In short, political pressure ceased to bother us.

I spent the winter at Cedaredge, a small town south of the Forest boundary. Aside from making regular reports and issuing a few free permits for timber, time was hard to put in at actual work.

My time was largely put into studying what I could get hold of that applied to my job, and getting better acquainted with users of the Forest and others living anywhere near my district.

Early in the spring, under new instructions, I located or made rough surveys and reports for withdrawal of several administrative sites to be used in the future for ranger stations or pastures for forest officers' stock.

Late in that year we got notice of the Homestead Act (act of June 11, 1906) and we were given detailed instructions as to its application on Forest Reserve land. This Act was the direct result of efforts by Congressmen to hamper the Service and cater to certain people around the Forest Reserves that were opposed entirely to Government administration.

A very large percentage of the so-called Forest Homesteads that were later listed for entry under this Act, while complying with the letter and spirit of the law, were absolute failures as homesteads. This was proved by attempts to make homes on them and their later complete abandonment. In general soils were too thin, or altitudes too high with accompanying seasons too short for growing other than wild hay crops. While I did not get into the handling of this part of Forest work until a year or two later, the above is written as the result of many years later experience in applying this freak act to the National Forests.

In the spring of 1907 I again went to my summer headquarters on Grand Mesa and spent the summer much as I had the previous one until August 1st. Then T. D. Woodbury was called to Denver and appointed District Inspector under Mr. Riley who was then establishing inspection headquarters in Denver, Colorado. On the advice of Mr. Riley, Supervisor Anderson called me into his office to assist him in place of Woodbury. So this was my last work as a ranger, although my title was not changed until sometime later.

I found the work in the Supervisor's office very difficult for me. There were no Forest clerks or stenographers at this time. I had to learn to use a typewriter, keep the files and records, and in general keep the office work going. Anderson could not give me any help, but was a good and kindly man to work with; while he was inclined at times to be abusive to others, I shall never forget his unvarying kindness to me.

These were stirring times in the Service. Stockmen were on the peck; politicians were fighting the administration of the Forest under our first Chief Forester, Gifford Pinchot, who was really putting the Forests under administration.

I believe it was in the latter part of 1906 that I attended a Western Slope Stock Growers Convention at Glenwood Springs. It was a large gathering and all the so-called fighters were there including Fred Light, Joe Luxen, Charlie Shidler, and other notables among the cattle owners who were, or had been, getting into trouble with the Service through allowing their unpermitted stock to graze on Forest Reserve lands.

There were other representatives of the Service at this meeting, but I remember particularly Gifford Pinchot, then Chief Forester. There were a lot of speeches and resolutions attacking the Service and its officers, and it looked like the meeting would close with still further antagonism

to the Forest Administration. I shall never forget the quiet, convincing attitude and speech of Mr. Pinchot. He was a tall, lean striking figure at that time. His cool logic, complete information with not undue persuasiveness, and evident determination to stand by the policies and regulations of the Service, brought about a tremendous change. While all the stockmen had regarded him as their arch enemy, before the meeting closed many, if not a majority of them, changed their attitude entirely. Some, because they realized they would have to comply; and some because they were beginning to believe that after all reasonable regulation of stock grazing on the Forests would in the end be to their interest.

One of the important things agreed upon at this meeting was that there would be only one major case taken to the courts, and that was the Fred Light Trespass Case. It was a semi-friendly understanding that whichever way the lower courts decided, the case would be appealed to the Supreme Court of the United States. In the end, the Supreme Court sustained the Government, and the right of the Secretary to make and enforce regulations was settled for all time.

The first really hard job I had to undertake in the Supervisor's office was to make a drainage map of the Battlement Forest. At this time we had nothing in the way of maps save a so-called boundary map which showed the location of the exterior boundaries of the Forest with reference to survey lines. The work had to be done largely from information obtained from the rangers and only own personal information of topography in the office. Much of the Forest was unsurveyed, and the surveyed portions were old, with many of the corners and witness trees obliterated either partially or wholly.

We began at once through the rangers in the field to get known survey corners and others that could be found, tied in nearby known topographic features. These ties were rough but had to be accepted. I did a little field work in connection with the project, but my main job was to make the map. Supervisor Anderson had a good rough knowledge, as did I, of the topography of the entire Forest.

The first thing I had to do was to learn use of a ruling pen, and how to handle it on tracing linen. It took a lot of practice, but by the time I had actually started to make the map, I could draw and print fairly well without spoiling a map after it was once started. The deadline for having the map in the District office at Denver was March 30, 1907.

About the 15th of March, after a lot of difficult work for me, I had what I thought was a presentable job on tracing linen sheet about three by five feet in size. It was all ready for the Supervisors signature. I shall not forget that day. Supervisor Anderson had been watching the progress of the map for months, and I had managed to keep him far enough away from it to prevent his getting it dirty or in any way mussed up. The map was thumbtacked to a sloping map board with bottles of ink on a flat strip at the upper edge.

I stepped out of the office for a minute and when I returned, there was a two to four inch black strip of ink from top to bottom. Mr. Anderson had decided to sign the map while I was out. He took a cork out of a bottle of black India ink and in doing so knocked it over so that it rolled clear across the map, spewing ink as it went.

I never saw a man so sorry as he was. But there was nothing to do only start over again. However the blueprinting of the sheet as it was, then tracing the blueprint with only the inked streak to fill in, was not a long job. We had the map in on time. This map was duplicated in the Denver office and used as Forest Map for at least ten years afterwards.

As I have previously stated the main and outstanding activity of this Forest was grazing of cattle and horses. In the spring of 1907 there were about 30,000 cattle and about 500 horses grazing on the Forest during the summer period. Naturally at that time the rangers and the supervisory staff were either cattlemen or ranchers who had had some knowledge of the stock business, with one or two exceptions. Most of the rangers were an easy going lot with little education and in the main lazy.

For example, there was a little Irishman by the name of Duffy. He owned a small ranch adjacent to the Forest boundary, but he was more of a horseman than a rancher. He was so reluctant to do any work on foot that he blazed trails from his horse. I saw him hunting section corners by using a hand compass while riding and counting the steps of his horse for distance.

Another example of a ranger of those times was Walt Borom who did everything even to fishing on horseback. Both of these men were then about 45 to 50 years old. The public generally was friendly to them principally because they did not bother the public unless they were forced to do so by someone higher up.

During this period of assignment to the Supervisor's office as his assistant for both field and office without any clerical assistance, it developed that I had to stay continually in the office because the Supervisor could not handle anything connected with the office. Novice as I was it required close application to keep us out of trouble.

I had to read the ranger diary records to the Supervisor at or near the close of each month, and here are a few illustrations of the type of rangers on the force at that time.

One Bill Wallace, who was a common cow puncher type but also a horse trader with a rated unsavory reputation in general, was assigned as ranger of the Muddy District. The following is a close transcript of a few days of his work as written in his diary record:

June 1, 1907 Left West Muddy Station 8 A.M. Travelled horseback to Bainard Ranch on East Muddy (the distance was 4 miles) stayed at Bainard Ranch overnight.

June 2, 1907 Rained all day; stayed at Bainard Ranch

June 3, 1907 Sunday, stayed at Bainard Ranch

June 4, 1907 Tools needed sharpening, no grindstone at headquarters; good grindstone at Bainard; put in day sharpening ax, shovel and knives.

At this point Supervisor Anderson stopped me and said, "John, why in hell didn't he sharpen his tools when it was raining? Write him a letter and ask him about it."

Here is another diary entry by another ranger stationed on Buzzard Creek:

Left camp 8 A.M. Rode up Buzzard Creek, saw track of large bear, returned to camp 4 P.M.

If brevity was a virtue, there was plenty of it in the rangers' diaries.

As time went along stockmen and general users realized that administration of the National Forests had come to stay and instead of making a general fight against any administration, they began to fight individuals for individual privileges. The large stock owners naturally wanted to hold all the range they had been occupying, graze all the stock they had been grazing, and in many cases fought for enlarged privileges. They could not get away from the old idea that through political pressure they could get what they wanted; so, complaints to Congressmen and Senators were frequent and extremely annoying to administrative officers.

In practically every instance, the local administrative officers were sustained. In general Congressmen came to understand that political preference in the allotment of privileges on the Forest was out. As a natural result Congressmen, notably Edward T. Taylor of Colorado (who in later years became a good friend of the Forest Service while he was in the House and in the Senate), blocked increases in appropriations to the Forests.

In these days Secretary Wallace, Gifford Pinchot, and the President, through their belief in conservation of natural resources and their confidence in the Forest Service as a whole, kept the whole thing from going on the rocks of political manipulation.

While it is a little ahead of the story, an illustration of political interference came to me personally while I was Acting Supervisor of the Battlement Forest in 1909.

Charlie Shidler, Joe Luxen and others of Rifle, Colorado who had been grazing from 500 to 1000 head of cattle each on the Grand River watershed of this Forest which was already overgrazed - asked for material increases. If granted, or even continuing the total previously grazed on this portion of the Forest, it would automatically shut out a number of smaller owners who had ranch property adjacent to the Forest, and who were dependent on grazing their stock on the Forest during the summer period to make a home of their hay-raising ranches.

I refused to grant the increased numbers and also made a cut in the total to be grazed on the district in order to bring the number down to near the carrying capacity of the range. I also insisted on proper distribution of salt to prevent overuse on individual areas.

These men appealed to the District Forester at Denver, Mr. Smith Riley. Riley turned them down, sustaining me after Jessie Nelson came out and went over the range with me. Mr. Nelson was then chief of grazing under Smith Riley.

However, they appealed their case to the then Congressman from Western Colorado, Edward T. Taylor, who persuaded the Secretary to cause an investigation. Mr. Will C. Barnes, then Chief Grazing Inspector under Chief of Grazing Albert Potter in the Washington office, came out and we went over the range and my actions. Mr. Potter and Mr. Barnes sustained me, and Taylor took it up personally with Gifford Pinchot by letter. Among other things Taylor requested that I be transferred to some other Forest, as it was a case of a man without honor in his own country.

In fact these men had ridden the range with me as stockmen and cowhands long before I entered the Forest. I received copies of Taylor's letter and Mr. Pinchot's reply. Mr. Pinchot, then Chief Forester, told Mr. Taylor shortly that the entire matter had been thoroughly investigated, and I was just the kind of man they wanted on the Battlement Forest and that the Service proposed to keep me there.

Taylor, who as I said later became a friend of the Forest Service, was responsible for two bad congressional acts that were designed to strike the administration of the National Forests. One was the Act of June 11, 1906 to open homesteads to entry on the Forests, and the other was the 640 Acre Grazing Homestead Act.

The Act of June 11, 1906 caused a lot of friction, a lot of unjustifiable expense to the Government, and real harm to a lot of well intentioned homesteaders who tried, but wasted their efforts in trying to make homes at the high altitudes and thin soil conditions that generally prevailed in Forest areas. However, the act did result in less eventual criticism of the Forest Administration because we went at the job of listing possible agricultural lands for entry with honesty and efficiency. This proved in the long run that practically all the lands included within the boundaries of the Forests were of principal value for non-agricultural purposes.

Looking back over the years, there are certain facts and convictions that stand out prominently in my mind for these early days of the Service.

Beginning with the time when the National Forest Administration was transferred from the Department of the Interior to the Department of Agriculture, there was a jealousy of the growing Forest Service by the Department of the Interior. It began to dawn on people generally and particularly Ballinger who was Secretary of the Interior, that here was an extremely important Governmental Bureau that was destined to affect materially the lives and happiness of the majority of the people in the United States.

This situation led up to the eventual conflict between the two departments that resulted in the discharge of Gifford Pinchot as head of the Forest Service. Ballinger, the Secretary of the Interior, and Glavis as head of the Land Office, apparently had two particular motives in mind: (1) the discrediting of Pinchot; (2) the dismemberment of the Forest Service and eventual return of this Service to the Department of the Interior.

During this period, I knew from my own responsibilities and activities in tree Service that the Forest was fully cooperating with the Department of the Interior without bias of any kind. This was particularly so in reporting after examination on mining claims and easements within the Forest boundaries, as well as fire cooperation and general land matters and jurisdiction of the Interior Department outside the boundaries of the National Forests.

Gifford Pinchot, in an attempt to save the integrity of the Administration of the Forests, violated what was then a steadfast administrative rule: that Bureau Chiefs must not appear before Congressional Committees to give testimony in behalf of their particular interests.

President Taft, either because of lack of knowledge of the real situation, or being incensed at Pinchot's taking the matter in his own hands with the Congressional Committees, together with his belief that Ballinger and Glavis had more political pull than Pinchot and the Secretary of Agriculture, removed Pinchot - or required the Secretary of the Department of Agriculture to do so.

The esprit d'corps of the Forest Service suffered a severe blow in Pinchot's removal. He was followed by Henry S. Graves, an old classmate of Pinchot's but he was never able to put the punch and loyalty into the Service that had been initiated by Pinchot.

As the Forest Service grew to be an outstanding, efficient organization in the handling of national resources, the jealousy of the Department of the Interior increased and still exists to this day in 1940.

The balance of my time in the Forest Service from 1922 to the time of my retirement in January 1935 was as Forest Supervisor of the Bitterroot National Forest. That is with the exception of the last field season and the following winter when I was assigned to a survey of the seven Eastern Montana Forests to determine and recommend the degree of presuppression and suppression of fire efforts that should be given to those areas.

One of the early timber sale cuttings on the Bitterroot was known as the Lick Creek area. Today, twenty-five years since this area was cut over, it stands one of the finest examples of timber management that I have ever seen. The area could be cut over now and yield as much yellow pine as the original cutting without impairing the future of the stand.

Looking over the cut-over areas on the Bitterroot where in the past there had been many large timber sales, and where for some years after I arrived a number of important sales were still in progress, gave the first real inspiration and interest in silvicultural methods. It also added greatly to my knowledge of the values lying behind our administration of the National Forests. I became somewhat of a selection cutting field man which I had never been before.

By this time the general procedure in the Service had developed from a somewhat scattered ineffective effort at intensive management, largely because of lack of funds to carry on the work. But as time progressed with continually greater support by the general public, who had been gradually educated to the real purposes of the National Forests, Congress became more liberal every year and the work progressed apace.

I suppose it was inevitable that as these things occurred, so-called red tape (paper work) would multiply itself as it did. During my last few years in the Service, paper work multiplied so fast that field work did not receive the percentage of effort it was entitled to. I was, and still am, of the opinion that with the right kind of effort, particularly in the Washington office, a lot of nonessential paper work could have been avoided, and the savings thus made better spent in actual field investigations. However, it must be said that the scientific work carried on by the Service, both in timber sale management, land uses, grazing, and last but not least fire control, which took up most of the paper work, has been fully justified by the condition of the Forests at this time.

FRED MORRELL
Regional Forester, R-1 1920-1929
(Retired from W.O. 1943)

Hotel Raleigh - 314
Washington, D. C.
March 24, 1944

Major Evan W. Kelley, Regional Forester
United States Forest Service
Missoula, Montana

Dear Evan:

I have not heretofore attempted any reply to the several requests for my early experiences in the Forest Service. I take it that you are preparing a history of Region One and I have no early experiences to contribute, since I did not go there until 1920. The Forest Service was well established and well received in the region by that time and aside from the inevitable difficulties with individual permittees we had no problem - in fact, I should say our danger might have been along the lines of complacency because we were so well established.

Looking back at my eight years there, there are two or three things that rather stand out. First I think the region had failed up until about 1926 to use its relatively small allotments for roads and trails to the best advantage from protection standpoint. The region had begun away back to build what in those days were pretty high-class trails and to build roads in the canyons where construction was exceedingly difficult rather than getting out on top of the ridges where it was both very much easier and of much more advantage in protection. I think that with a good deal of prodding from you and Headley we began to really correct that after the 1926 season. Of course, we didn't get very far - wouldn't have gotten a long way with available funds anyway, but it would have helped, and about the time you arrived there, the tractors and bulldozers had begun to move in, with the result that the quantity of material used was not so important an item in cost of construction, and with CCC and other emergency funds, real progress was made.

As to the private land situation, no one that I can recall had begun to think about a second crop of timber. The larger companies, A.C.M., Humbird, and others, had active land sales, departments selling cutover land to would-be farmers. It had become pretty evident that people could not make a living on most of this land, but the companies were following the traditional method of disposing of it and, we were seeing the last of the old idea that farmers followed logging operations. If they were to follow, then the less timber growth left on the land the better and slash burning was the cheapest way to get results. That idea - cut-over timber land farms - was still prevalent throughout the region, the high percentage of people believing it still feasible and the Chambers of Commerce and other booster organizations being for it. That made the problem of protection on privately-owned timber land exceptionally difficult. The facts were that up to the time that I left the region in 1929 very few operators had begun to think of going back to the land for a second cut as even a possibility, and protection of cut-over land was pretty definitely limited to what was considered essential to prevent the destruction of virgin timber. A number of

companies, of course, lost very heavily, and in some cases, it was due to failure to recognize that valuable timber could not be protected without protection of cut-over and previously burned over areas. Looking back now, it seems to me that we did about all we could under the circumstances and I hope that there has by this time been a sufficient change in the attitude of both public and operators that more progress is being made.

In the silviculture field, we, of course, struggled with the "mixed" problem - fir and diseased hemlock for which there was no market and seemingly no future occupying much of the best timber growing land. That, of course, had always been a problem in the region and I assume is still a problem, and such young pine stands as we were able to establish came at an exceedingly high cost and were, of course, always in great danger of destruction by fire, blister rust and bark beetles. The job of establishing a really worth-while forest on some of those climax areas was more expensive and difficult than to establish a stand by planting on an area completely devastated. I suppose some good results are showing, but it was to me a rather discouraging outlook.

We had no unusual problems in the administration of grazing - most of our ranges were in relatively good shape and range administration had been pretty well accepted. We, of course, had the game vs. livestock problem in a few areas and we had the usual difficulties in finding State Game Commissioners whom we could interest in constructive game management programs. Commissioners and Game Wardens changed with each change in state administration and sportsmen's groups were, generally speaking, the most inconsistent, unprogressive, and difficult groups with which I ever worked in national forest administration. We made progress one year and slipped back the next, and I don't know that the situation was much, if any, better in 1929 than it was in 1920.

These are some very hasty observations, perhaps not at all of the kind you want. They are not in the field of "personal experiences." Frankly, I never had any personal experiences that would seem to me interesting enough to write about. There were, of course, many clashes over the years with irate forest users and others. I always succeeded in escaping both black eyes and hiding under the table and I have always had some reservations in my admiration of the old timers who did not. All of my years in the west were of course full of interest and my years in Region One perhaps the best in my long experience in Government service, but I can't honestly say there is any single thing to which I could point with particular pride or any single incident with enough dramatics in it to be of interest to other folks.

In closing, may I wish you good luck and satisfaction in what I understand you plan to do in this connection. If there are any particular points that you think I might be helpful on I shall be glad to contribute anything that I can. I understand that you have fixed definitely a date for your retirement, and in that connection too, I wish you all possible satisfaction and success.

Sincerely,
/s/ Fred. Morrell

WILLIAM W. MORRIS
Forest Assistant
Coeur d'Alene, 1909-1914

EXPERIENCES ON A NATIONAL FOREST

By William W. Morris

I have always loved the woods. This love has doubtless come down to me from a line of ancestors who could build ships from timber they had hewn with their own hands, and others engaged in the sawmill business.

Four years of sedentary work was enough to increase this affection for the great outdoors, so that I determined to make a study of the then comparatively new subject of forestry, hoping to make it eventually my profession. I soon found that in order to be a forester one must have a knowledge of many things, which apparently on the face of them did not pertain to forestry. For instance, it was necessary to have a considerable knowledge of the arts and sciences, and it was not until my third year at the large university, that any subject dealing directly with the subject of forestry was taught me. It was with a light heart that after five years of study at this university, I was able to pass successfully the Civil Service examination given by the Government for admission into the U. S. Forest Service.

Soon after taking this examination I was summoned by wire to report at the District Office of the Forest Service at Missoula, Montana. I arrived at Missoula July 3, 1909. Met Mr. Silcox, Mr. Rutledge, Mr. E. E. Carter, Mr. Greeley and many others. From Missoula I was soon detailed to the town of Wallace, Idaho. To be frank about it, I had never heard of the town of Wallace before, and as the train puffed up the beautiful valley of the Bitterroot River, over the summit of the Bitterroots, which marks the Montana-Idaho divide, then glided rapidly down into the Coeur d'Alene Valley, I wondered many times what kind of a town it was going to be my lot to strike. I was very agreeably surprised, for as the train sped into the station I saw a unique little city, set like a tiny jewel in the heart of the mountains, where five canyons meet.

It seemed like a toy city as I obtained better views of it later on from the high surrounding hills, but it was clean and spotless, and very much up to date, with fine homes and fine people. The hills on all sides of the town, coming down to the very doorsteps in fact, were covered with a beautiful young growth of timber. I had very little difficulty in locating the office of the Forest Service, as one can walk the entire length of the city in a few minutes. Here I met my Supervisor, W. G. Weigle, under whom I worked for two years, and for whom I always had the greatest respect and regard.

A few days after arriving I was sent out on my first trip on the Coeur d'Alene National Forest. At that time this forest comprised about a million and one-half acres, and included the land drained by the St. Joe and Coeur d'Alene Rivers, in northern Idaho. As there were only a few rangers and forest officers on this forest at that time, it kept one constantly on the jump, attending to fires, timber sales, and other work that needed attention. Few were the trails in those days, and much of the forest was unknown. Most of the trips were taken on foot, with one's blankets and supplies in a large Duluth packsack carried on the back. A walk of twenty-five miles carrying from forty

to eighty pounds was not uncommon and often the distance was even greater than this in a single day's trip.

My first trip on the forest was to look over some burned timber on the Little North Fork of the Coeur d'Alene River. A man had applied for this timber, as he thought it would still make good lumber. Our duty was to make a map of the area and an estimate of the amount, with recommendations as to the manner of cutting, and the proper price at which to sell it. From Wallace we went to Harrison by rail, down beautiful Coeur d'Alene Lake, to the town of the same name, which is ideally situated at the north end of the lake. From this point we made the walk into the river, the deputy supervisor, two rangers, and myself. At the river I saw for the first time beautiful stands of white pine timber, one of the most valuable timbers that the U. S. has produced. I soon learned that the main species growing on this forest were western white pine, Douglas fir, western larch or tamarack, western yellow pine, lowland fir, western hemlock and cedar, the order given showing about the relative importance. We were fortunate enough to find a settler's cabin the first night. The next day we went on up the river, located and mapped the burned timber. The following night we stayed at a cabin belonging to a small mining company. Holes in the ground and old mining prospects are common throughout this region. This particular mine or prospect had a good copper showing, and we explored it for a distance of about fifteen hundred feet, with the aid of a "palouser." There are several things in this region called "palousers." Later on I will mention the word again and mean something entirely different. In this case a "palouser" means simply a tin can with a hole cut into it, and a candle inserted in the hole, so that the lighted end is inside the can, and the wind will not blow it out. I had occasion to use these devices often.

At this mining cabin our host happened to be a man who had come in from the town of Wardner, Idaho, where the great Bunker Hill and Sullivan lead mine is located, one of the largest in the world. He had come into the river to tell the man who was working the claim, where we were staying, that his brother had just been killed in the mine at Wardner. Thus I got my first idea of the dangers attending this rough mountain life, in the mines and logging camps.

The rest of the summer, which was in the year 1909, I had the good fortune to be assigned, on rough reconnaissance work, with an old lumber cruiser. In this manner I was able to get over a great deal of the forest, and become acquainted with the timber, and other conditions. At that time it was not known what areas were timbered, and what were burned or bare, so our methods on this reconnaissance were to make a map of the watershed of timber, that we were estimating, showing by suitable colors on the map, timbered, burned, and bare areas. Then we would go into areas of timber that were good averages of the whole, and made a careful estimate of a small plot. After determining the amount per acre, the total acreage of timbered country was obtained from the map, and a rough estimate of the timber made.

I considered it lucky to get out with a man trained in the woods all his life, and the experience proved valuable later on. Most of the summer we spent in a little tent, or sometimes in the open, doing this sort of work. You may be sure it was all most interesting to me. The country was new and almost unexplored. Occasionally we would come to an old settler's cabin, and sleeping in one of these one night, I had my first experience with pack rats. The pack rat is a large mountain rat, so named because it has the habit of packing off to its nest almost everything that it sees.

They seem to be particularly partial to all bright shiny objects, such as spoons, silver dollars, etc. The woodsmen regard them with more or less superstition, as they have a peculiar method of tapping in the night time, when one is trying to sleep, much in the manner of the Morse telegraph code. This they do with their back feet. I remember one old cabin where we slept one night a carpet had been hung out at the head of a bed built of logs. When we laid down in the bed our heads touched against this carpet. I remember waking up several times in the night, feeling a pack rat rubbing against my head, as it ran back and forth on the other side of the carpet. There had been some volunteer potatoes come up near this cabin, and that night the pack rats had been working diligently, and had cut all these potato stalks down, and placed them all in front of our cabin door, where we saw them the first thing in the morning on going to make our ablutions in the cold mountain stream flowing near my friend the cruiser remarked that he thought it was a "whitecap" warning to get out, which we did as our work at this place was completed.

It was my good fortune to spend a considerable part of the fall of that season, on stem analysis work. This is a detailed study of the growth of trees, and consists of a measurement of the diameter growth, usually at every sixteen foot section of the tree, for ten year periods, and other diameter and height measurements are also recorded. In this way the contents of the tree in board feet can be obtained for ten year periods, and from these figures yield tables, showing the average stand per acre at different ages are obtained. These yield tables are of great value in determining what any piece of land, not now timbered, might be expected to grow in any given period of time. This work was done along the line of the new Chicago Milwaukee and Puget Sound Railway, which in order to conform to a certain grade had been cut through the hills in a great loop just on the Idaho side of the divide between the two states.

The whole line at this place consisted of tunnels and large bridges over gulches. It was a great piece of engineering work. The longest tunnel was the Taft tunnel, named from the town of Taft on the Montana side. This tunnel was over seven thousand feet long. It was very interesting walking through it, especially when one met a train in the middle. On our own side of this tunnel there sprung up a new characteristic railroad town called Grand Forks. It was universally admitted that the town of Taft was the toughest town in the country, until Grand Forks came into being. This town quickly went into first place for that honor. Many times its inmates were arrested for selling liquor without a license on forest property, but each time, except the last, they escaped penalty, on the ground that they were on a mining claim. The last time they were tried however, they were fined, and made to leave the place within a short time.

Shortly after my work was completed in this locality, I was detailed to the Menominee Indian Reservation, in Wisconsin, marking timber to be cut for logging. On my return from this trip, about the first of February 1910, I found the town of Wallace buried under snow, figuratively speaking, with more coming almost every day. At this time I was initiated into work in the mountains in the winter time. If it was hard to carry a forty pound pack in the summer, it was doubly hard when one had to wade through five feet or more of snow.

However after a little practice, I soon became adept with snowshoes. As there were several tracts waiting to be examined at the time, I was assigned to make these examinations and reports.

The Idaho woods in the winter are wonderful. In the month of February the snow fell quietly almost every day. Sometimes stumps and logs get covered to a height of six feet or more, as there is usually little wind, to blow the snow off. The great boughs of the spruce, hemlock, and cedar bend almost to the breaking point with their white load. The silence is awesome but inspiring. I often thought, as I worked in these snow clad regions how few people have the opportunity for the enjoyment of such absolute solitude and quiet as are afforded by these mountain fastnesses in the winter time. Frequently we saw the large round tracks of the mountain lion, or the smaller ones of the lynx, the dog like track of the coyote, the deep hoof like marks of the deer, and down by river streams the claw marks of the marten and mink. None of these animals will molest one unless they are cornered. The snow often came so wet that it would cause great branches to be broken off the trees. I remember one night a young fellow (Wilfred Willey) just graduated from Yale University and I had turned in early after a hard day's work. A wet snow had been falling heavily for some time. We were camped in a little log cabin, built by some prospector who evidently had an eye out for the timber, but it had been abandoned. I was dreaming peacefully when a great roar awakened me, and then all was silent. Thoughts of snow slides went into my head, but I was soon asleep again. In the morning we saw that a mighty branch of a giant old fir tree, standing near the cabin, had been broken off by the weight of the wet snow. The fact that the snow would pile up so high on stumps and logs, often caused us a great deal of annoyance if not of danger. The only means of crossing the small streams where we were working was over foot logs covered high with snow. One day, crossing on the top of one of these snow laden logs on snowshoes, the snow suddenly gave way, and I found myself holding wildly on to the footlog face upward, gradually slipping into the water. I called to my companion to come to my assistance, but before he could do so, I was forced to let go my hold, and found myself lying back down in the icy waters. Fortunately the stream at this point was not very deep, and the discomfiture of a cold bath in the winter time, several miles away from dry clothes, was the only bad result.

The supervisor had an application for a large body of timber on the drainage of the St. Joe River about this time and had been planning during the latter part of February to make an expedition to this area. The purpose of this was to get an estimate of the timber, and to make a map of the country, in order to obtain an idea as to the cost and feasibility of logging it. The trip involved a hard climb over a high divide, and our ranger in Wallace, who is by the way a direct descendent of Count Pulaske of Revolutionary fame, built a large toboggan to carry our equipment on this trip. Many were the speculations by the old timers, as to whether this toboggan would be a success in the mountains or not. One had never been used before, and we were all eager to give it a trial, when an event occurred that held us back for some time.

THE GREAT SNOWSLIDES

It had been snowing every day in Wallace for some time. On one Sunday about the last day of February 1910 it was raining for a change, but snowing in the canyon town of Burke and Mace about seven miles up the large canyon where there were two railroad lines connecting these towns with Wallace. The high hills and mountain peaks were covered with a mantle of snow many feet in depth. That night just before going to bed I was talking with an old resident, who had been in the country before Wallace was started. He remarked at the time how favorable the weather was for a snowslide. It only needed a little wind perhaps, or the movement of some

animal on a high bare peak, to start a little snowball sliding, which would develop in its downward path into a mighty avalanche carrying everything before it, and dealing death and destruction in the valley below. That night I was awakened shortly after midnight by the sound of several locomotives giving four loud blasts in succession. Then I heard several people passing in the street; talking in excited tones. I could not sleep for some time, especially as the locomotives kept up their shrill blasts. I tried to convince myself that nothing was wrong, and finally fell asleep again. In the morning on going to the restaurant to get some breakfast, I learned that a great snowslide had almost swept the town of Mace out of existence a little after midnight, and that a second slide had just struck the town of Burke. It did not take me long to go to the office, where I obtained a camera, and, accompanied by another Forest Officer (Joe Halm), was soon en route for the scene of the disaster. The Burke canyon is only a few hundred feet wide. High mountain peaks were on either side, much of the timber having been burned off or removed several years before. On reaching Mace we found that the town had almost been buried under a great mass of snow that was as hard as ice from the impact when it struck, and people were walking on top of this. Remains of houses and furniture were scattered everywhere, and a train of freight cars had been half buried in one place.

Many bodies had already been taken from the ruins, and I believe that in all about nineteen people perished in these two slides. The impact of the slide had been so great that the high school about five hundred feet away from where the slide struck had the windows broken, and the small growth on the opposite side of the canyon from which the slide had come had been bent over and covered with snow, as if struck by a hurricane, so great was the rush of air.

The slides had come from the top of what is known in the locality as Tiger Peak, high and bare, and it was not the first time that it had sent a great snow mass to the valley below. This mountain is largely undermined by some of the richest lead and silver mines in the country. The slides as their custom had followed the draws, and those who had been unfortunate enough to locate at the mouth of these draws were first awakened by a great roar, only to be buried under tons of snow a few seconds later.

The prompt assistance of the miners from the mines at this place saved many lives. It was some time before we got over the effects of this calamity, and felt as if we cared to venture forth in the mountains.

OUR TRIP WITH THE TOBOGGAN

March of that year was a beautiful month. One perfect day followed another. Along about the first part of the month we started out on our trip to estimate and report on a large area of timber lying on Big Creek, tributary to the St. Joe River. Our route lay from Wallace up Placer Creek of the Coeur d'Alene over the divide to Big Creek on the St. Joe. It was a beautiful March morning when a party of six of us (Weigle, Gregory, Willey, Halm, Pulaski, Morris) started out with our toboggan. Ropes were attached from the front and two from either side. Several feet of snow lay on the level in Wallace, and grew deeper as we increased our elevation. It was easy work at the start, and we were all feeling our oats, and light hearted with the beautiful day, the crisp mountain air, and the ease with which our equipment was moving along on the toboggan. We felt that it was going to be a success. It was after leaving the road, however, and turning up the West

Fork trail, that we began to experience trouble. Here the trail had been built in some parts on a thirty degree slope, and with about five feet of snow on the level no sign of it was visible. It was necessary for us to go ahead and break a level place in the snow for the toboggan to travel on. Moreover we were somewhat fearful of snow slides as a result of this, for the slopes above us were all bare of timber, and we had already passed over a large slide that had vent its fury on the few trees that had been in its path. These were strewn promiscuously in the gulch below. None of us felt that we would like to be substituted for one of these trees.

By night we had travelled about three miles. We sought shelter in a small cabin, where I taxed icy culinary ability by baking a loaf of baking powder bread. The roof of this cabin was covered with about six feet of snow. We saw several cabins that had been completely broken down by their weight of snow. The following day was when our hard work really began. Our trail now lay up a steep hogsback, which led to a large ridge running to the main divide. By hard work, which involved packing some of the things on our back, we succeeded finally in getting the toboggan to the main ridge. Before starting this climb, we took a drink of water in the creek, and filled a canteen which however did not go far among several perspiring men. Soon we began to suffer quite severely from thirst. Eating snow only aggravated the situation. The going was somewhat easier on the ridge, as it extended for a mile or more at an easy grade. We sat down in the snow at noon, and snatched a bit to eat, but without water our food stuck in our throats. Slowly and with increasing labor we continued on. About four o'clock we suddenly came to the divide, the highest point of our trip. The top was covered with an enormous snowdrift which ended in a sheer drop on our side of about ten feet.

There was no other way than to cut steps up this, and by putting a stout cruiser's stick deep into the snow on the top, we were enabled to pull ourselves up. We now saw that the usefulness of the toboggan had come to an end, and with great reluctance we hid it in some bushes near by, where it finally burned in the great fires that swept the country the following summer. We had left some of our things behind, and one of my companions (Wilfred Willey) and myself went back to get these, while Halm and Pulaski returned to Wallace. The things which we went back for were mostly blankets, and putting a large supply of these in our packsacks we started again for the summit. It was a wild scene that lay before us. Darkness was coming on and to add to our discomfiture, it began to snow, so hard at times that it was hard to see many feet in advance of us. The wind too was blowing a gale as we neared the exposed summit. At this point, the ridge narrowed to a sharp edge, with steep slopes on either side covered with frozen snow. The footing was difficult and my companion (Wilfred Willey) lost his snowshoe, which slid for about a hundred feet down the mountain side and fortunately stopped by striking a tree. He had to cut steps down to it, which took considerable time. We finally made our way to the summit up the steps cut in the frozen snow by our two companions in advance. It was quite dark now, but the ridge was level and the walking good. Weigle and Gregory had constructed a rough shelter in the snow in the most secluded place they could find. They had dug a hole in the snow, covered a portion of the top of it with boughs, from a nearby tree. After spreading a "tarp" on the snow under the boughs, we put the blankets we had brought on top, and then built a large fire in front. We would have been very comfortable, had we not suffered so from thirst. We ate our supper of boiled beef, bread and some preserves with great relish. We tried to melt some snow in the preserve can, but without success. We estimated that there were twenty or thirty feet of snow beneath us, and it made a soft and feathery couch. Shortly after turning in a heavy blizzard struck

us, the wind howled, the air was thick with hard pellets of snow which came even through our roof of boughs. The storm stopped as quickly as it came upon us, the wind ceased, the stars came out, nature was at rest again, and I knew no more until morning.

The sight that greeted our eyes on arising was one that only a few people get a chance to behold. The sun was just appearing. The air was exceptionally clear, and the bare mountain sides glistened as if set with myriads of diamonds. Miles and miles of the rough mountain country lay before us, with shining snow clad peaks and ridges as far as the eye could see. Even the Cabinet range was visible in far away Montana. I did not wonder at the remarks that I had so often heard that if Idaho could be levelled off and pressed out it would make some state. I longed for a camera, but on a trip of this kind it is hard enough to pack necessities. That day we made our way down to Big Creek in the St. Joe watershed, where we were to do our work. Water never tasted better to me than that morning when we first struck a mountain stream. Weigle and Pulaski returned to Wallace, Gregory, Willey and I stayed to make the estimate.

We remained in this watershed almost two weeks, estimating the timber and making maps. Some of our trips were hard, but most of our work was enjoyable. I know at one time we were troubled with snow blindness, and used to rub our faces with the burnt bark of the red fir, which is quite corky. This apparently gave some relief, but we presented ridiculous appearances. I remember one evening a companion of mine and I had wandered on our snowshoes many miles from our cabin in our estimating work. We were in another fork of Big Creek at a place where in the following summer eighteen men, fire fighters, were to lose their lives in the great forest fire. We could not reach our camp that evening and were contemplating sleeping out in the snow when we came in sight of a neat little cabin. Nobody was at home and we took the liberty of staying for the night. We found flour and I made some cakes and tea, and altogether made out very well. The cabin was as neat as a pin. In one end was a crucifix and a folding bed. We were indeed fortunate to strike such a place in this wilderness. The next day we returned to our camp, and a few days later went down the creek to the St. Joe River, where we returned home by rail and boat to Wallace.

THE HEADWATERS OF THE COEUR D'ALENE

At the time of which I write the Forest Service had few trails on the Coeur d'Alene Forest, and many regions were not only inaccessible in case of fire, but almost unknown. One of the first things we wanted to know in order to make a working plan for the forest was how much timber we had, what areas were timbered or burned, and what areas might be profitably planted or restocked. A working plan is a detailed plan of running a forest. In the plan a certain amount of timber is allotted to be cut each year on a certain area, or during a certain period, so arranged that the forest will not be overcut. The plans also show the areas to be restocked, and the improvements to be made. In order therefore to get an idea of the timber located at the head of the Coeur d'Alene River I was detailed by my supervisor to take a party of three men, go up there and make a map of about a township of the timber, with a rough estimate. About the middle of May we started out. This party consisted of rangers George Hamilton and Allen, guard Millsap and myself.

Our supplies were sent from Wallace to the town of Prichard, which is located on the river. At this point we took boats. These were long flat bottomed affairs, pointed at both ends so that they could be more easily poled, if the term "easily" can be used as applied to pole boating. To all those who have never poled a boat up a swiftly flowing river, I would say that it is not the easiest job in the world, and requires a great deal of skill and endurance, a fact which I soon learned. I had with me three rangers, one of whom had charge of the district which we expected to examine, and two sort of general men assigned to various parts of the forest as the occasion demanded. We finally reached what is known as the forks of the river, above which the two streams are known as the East Fork and the West Fork. From here our work was done, and we camped the greater part of the time at this place.

It took us three days to reach this place, a distance of about twenty five miles, for it was in May and the water was high, from the melting snow that even yet remained on some of the timbered areas. Often we were compelled to jump out of our boat, wade the river and tow the boat by a rope fastened to the bow. It was slow hard progress. However as we got near the head of the river the fishing became good, and a good mess of trout tasted fine and cheered our drooping spirits after a hard day's work wading the river.

Isaac Walton himself probably never had the beautiful spots in which to fish, which this river afforded as it wound its sinuous way through the wilderness. Here it glided swiftly over a shallow bar, and was not over a foot in depth, again it would pass very slowly by a great rock cliff, where the water was deep, and dark, and where the big ones loved to play, and how savagely they would take hold of one's fly, as it alighted quietly in some likely spot, easily accessible to the poorest angler from the passing boat.

We stayed for several nights at a natural meadow near the "Forks." Here a small cabin was located, and we had a stove on which to cook our trout, with all the comforts of home. The first night here we were awakened by the snorting of a deer in our meadow, who evidently suspected that someone was trespassing on his domain. In this little meadow grew the camas plant, the root of which is a bulb, and starchy and which the Indians of the West often use for making bread. We found some very good timber in this region especially in the river bottoms, but the slopes were mixed with a large percent of defective hemlock. In one place we came across a large white pine about five feet in diameter, and one hundred and seventy five feet tall, which had been cut down, and about sixteen feet of the tree near the butt had been used to make a dugout. Some trapper had evidently taken his skins out down the river. The rest of the tree was wasted, beautiful wood, which in this section of the country can hardly be bought at any price. At the "Forks" camp we had company - i.e. a great number of little crossbills, pretty little creatures of all colors, and with their bills crossed so that when they ate anything they had to bend their heads sidewise. These little fellows had evidently never seen a human being before, for they were exceedingly tame, and would eat out of one's hands before we left. On this trip, we saw lots of new country, and located a great deal of bare land which some day we hoped to restock. We also saw a number of peaks, which we climbed, commanding great views of the surrounding country, some of which are now lookout stations, connected directly to the office by telephone. We usually worked in twos, except where we took some careful strips, and calipered the timber on them, when all four of us worked together. In this way we obtained some careful estimates per

acre on certain areas, and applied these estimates to corresponding areas on our maps, in this manner getting the total stand of timber.

I had heard before starting on the trip that Halley's comet was to be visible in the northwest for a certain time in the evening, and so I attempted several times to locate it, but the mountains or the timber so completely shut off the view of the heavens that I was doomed to disappointment. We stayed up in the wilderness without seeing a soul until after Decoration Day. On the morning of that day we worked, but thinking that a rather unpatriotic thing to do all day, we devoted the afternoon to fishing, if not more patriotic at least a delightful change. As we expected to return to Wallace in a short time, we decided to let the office force have a taste of brook trout, which we had been enjoying so much. Accordingly we dammed up a little stream, a minute portion of the main river at the "Forks," and converted it into a very small pond a few feet wide. Then we went fishing, and what fishing we had! One of the rangers caught sixteen out of one hole, and I got eight out of another. The largest one was about seventeen inches long. These fish we put into our fish pond, where they lived, and were in good shape a few days later. My rubber blanket served as a seine to catch them in, and it was only a short time before we had them cleaned, salted, and packed with ferns in one of our provision boxes. We had almost the limit allowed by law, and several residents of Wallace, as well as the members of the office force enjoyed a trout supper.

The return trip was worth all the hardships of going up. We glided by places in a few minutes that had caused us hours of toil on the upward journey. Swiftly we would shoot over narrow bars, where the water was bubbling and writhing, and where occasionally we could feel the canoe rub on some stone or hidden log, then into the deeper quieter waters, looking black and treacherous, with perpendicular rock cliffs overhead, and at these points we would almost stop. But we got through without a mishap, and were down to Prichard in less than a day, where we returned to Wallace by the one daily train.

From this time on until about the middle of July I was kept constantly on the go both in and out of the office. About this time I had the pleasure of visiting one of the great copper mines above Wallace, with my brother, who had made me a short visit. There is only one large copper mine in the neighborhood of Wallace, the great mining industry being in lead. The copper is not native but is found in various forms. We first travelled by a car electrically propelled for what seemed to be miles into the solid rock, then were let down several hundred feet in a bucket. Here we saw the men in the stopes, where the ore is obtained, working machine drills into the ore bearing rock, preparatory to the insertion of a blast of giant powder. This is dangerous work, as large pieces of stone frequently fall from overhead, and blasts are discharged by accident. The man working here is never safe, though many of the old miners I have talked to like the work better than other occupations. It is like the sailor who believes himself safer on sea than on land. A few hours later we were both glad when we saw daylight ahead of us as we rapidly sped on our car from the bowels of the earth to the beautiful sunshine, with the songs of the birds and the colors of the flowers and sky, which would mean so much more to us, if we were to lose them.

THE GREAT FIRES OF 1910

Never within the memory of all the old timers did the Coeur d'Alene experience such a dry spell as occurred during the summer of the year 1910. Even as early as April the south slopes were

quickly relieved of their snow burdens, and became quite dry. A fire was reported to the office on one of these slopes the latter part of that month. A few scattering showers in May and June about completed the sum total of the rainfall for the summer.

Returning from another hard trip up the Coeur d'Alene River by pole boat in early July, I was taking a somewhat needed rest in the office, by writing up reports, etc. when Professor Kirkwood from the University of Montana made us a visit. As he wanted to make a study of the flora found upon our forest, I was very much pleased when the supervisor asked me to accompany him on his trip, and show him some of our more accessible timbered areas. July 13, 1910 saw us climbing the top of Striped Peak, about five miles from the city of Wallace, and reached by what is known as the West Fork trail. It was a beautiful day, but quite hot and dry with a stiff southwest wind. We arrived at the top of Striped Peak, which has an elevation of over six thousand three hundred feet, about lunch time. We had hardly sat down on the top of the peak to eat our lunch when I noticed smoke in the southwest. I took a compass shot in the direction of this smoke and then sat down to finish our lunch. As we were eating smoke suddenly appeared in the southeast, and fanned by the gale that was blowing quickly developed into what looked to be a stiff fire. Looking carefully in the direction of the other fire we also detected smoke, a thin narrow band of it, in the southwest but nearer than the first one we had seen. This was too much. It was necessary to report these fires at once and postpone, for a time at least, our trip. Hastily taking a compass shot on the three fires and estimating their distance as near as possible, I plotted them approximately without the aid of a protractor, on my map, and we started on the return trip to Wallace.

At that time no telephones connected this peak with the office, as is now the case with all of the mountain peaks that command a good view of the country. Before descending we took a look at the fire in the southeast. It was coming our way rapidly, and although possibly twenty miles away, it seemed as if it might be at our mountain peak in a short time. Little did I think as we left that high point that day, a point commanding a view of timbered slopes and canyons, bare peaks and green ridges, stretching away as far as the eye could reach, that it would be my last view of this beautiful panorama of green clad hills. The next time I was to behold it again it was with a feeling of great sorrow, sorrow for a fallen race whose scattered and broken remains lay spread out before me. The greenness had vanished. The canyons and hillsides were covered with a twisted mass of broken blackened trees, in some places five trees deep. It reminded me of jackstraws more than anything else. Great pines almost two hundred feet long were there, broken, twisted and fallen, the product of hundreds of years of slow but sure accumulation of food from the earth and air. What a sad sight it all was for one who had viewed the same country from this spot only a few months before.

We reached the forest office in Wallace in the afternoon. The stenographer said that the supervisor had already gone out on a fire. The fires we had seen had all been reported, and action taken. From then on until about eleven o'clock that night, the telephone was going continually, either the same or other fires being reported from various sources. Thus the fires had caught us all at once, and from then on until the middle of September it was one continual fight, though at that time we did not know it was to be. The next day I was sent out to one of the fires that we had sighted the day before from Striped Peak. This fire was on the North Fork of the Coeur d'Alene river about thirty two miles from Wallace by rail. Professor Kirkwood was to accompany me. I

was to stay until the fire was under control, then go on up the river with Professor Kirkwood. It was thought it would probably take a day or two to control this fire. It took just fifty five days and nights. The one daily combination freight and passenger train took us up the river quite near the scene of the fire where the Graham Creek Ranger Station was, and is still located. A small stream emptied into the river at this point, and it was up this stream the fire was burning. With the ranger from the station we started for the scene immediately. A road led for about two miles up the canyon along this little stream. Three settlers had taken up claims in this canyon some time before. The fire originated probably from burning brush from the furthestmost claim, about two to three miles up the stream. It had started the day before we arrived, and conditions were just right to give the fire a great start up the mountainside. At the first cabin about one mile up, some young ladies from Spokane had been visiting. Their suitcases full of clothing were still in the stream where they had thrown them the day before, in their hurry to leave the place. As it happened it was not until about fifteen days later that anybody on this little road would have been in any great peril. The fire was burning quite near the second cabin and that afternoon we confined our efforts to stopping it at that point, which we did temporarily. Only a few men were working, and we all had to turn to with axes and mattocks. Professor Kirkwood proved himself to be an expert with the mattock, as well as in the classification of plants. A camp down the river had promised to send up a big gang of men, but they did not arrive until the following day. When they finally came I divided them up into two groups, one going up to the head of the fire, another group working to head it off in some valuable timber on the slope just over the ridge from the second cabin. These fire lines eventually met. Most of the men were foreigners and not highly satisfactory. We had a crew of about sixty all told. In making a fire line axes and crosscut saws are first employed to clear away all windfall and dead stubs, and these are followed up by men with mattocks who clear a trail exposing the mineral soil, about three feet wide. Patrol men are sent back on this trail as it is increased in length, to keep sparks and fire brands from blowing over it, or to put out fires caused by these being blown over the line, before they have developed into a large fire. Usually these fire lines are constructed a little to the lee side of a ridge, as it offers a favorable place to fight a fire, and it will run down hill on the lee side much slower than it comes up on the other.

Everything was going along favorably except the weather. It seemed as if it could not rain. Several times clouds appeared that under ordinary circumstances would have poured rain copiously, but not so this year. After getting a fire line around the fire on the east slope of the canyon, we tackled the west slope, where a fire had been burning lightly in some small timber. That day the wind came up strongly, and scattered fire everywhere. However we were enabled by working several nights to get a fire line up to the top of the divide, on the west side of the creek, so it was kept for the time being from going down towards the mouth. Many of the men had left or were unsatisfactory, so I went about the last part of July to Wallace to get hold of some more men. I returned with twenty-nine. Conditions were then bad in Wallace. The air filled with smoke and fires were raging everywhere in the mountains. Our supervisor was almost exhausted with the strenuous work, both night and day. I met a man on the train when going to Wallace, an old timer, with whom I conversed relative to the fires. He said "We will be all right as long as we don't get one of those 'Palousers' lasting about three days, which would scatter our fires everywhere now that it is so dry." Now a "Palouser" this time referred to a gale of wind from the Palouse country which strikes the whole region occasionally. The Palouse country is famous for its wheat, and the wind picks up the fine red soil and carries it for miles, filling one's

throat and nose and covering everything with a fine powder. Fortunately these are rare and the country is usually calm, with very few violent storms. But this year one of these was to come along with many other things. The wind is one of the chief factors in fire fighting. When the wind blows hard and other conditions are right, the fire leaps up into the crowns of the trees, and travels along at a great pace, by brands blowing ahead of it and starting new fires. When it is quiet one may work quite close to a fire, but let the wind blow, and it is necessary to keep a respectful distance. It is also well to get on a fire early in the morning for this is usually the coolest and quietest time of the day, and the dew has a tendency to check the fire.

At this time we had only one small fire that was not under control. This was burning in a small area of rather poor timber on the east side of Graham Creek but nearer its mouth than we had been before. But this fire was to be our downfall, for it was in an old slashing, and a wind came up strongly the day we attacked it, and soon it was leaping and rushing over our fire line in all directions, but mainly towards the mouth of the stream. We could do nothing with it. Bringing down the men we put forth all our endeavors keeping it on the east side of the stream. Here for the first time we had a chance to use water, its natural enemy. But it was no use. Looking up on the west slope we suddenly saw smoke, and in a short time this side was a roaring furnace, traveling rapidly down towards the mouth of the creek, and threatening to shut off our escape in this direction. Men worked like heroes that day. I remember one man a "lumberjack" who had come to the camp drunk. I had hesitated to employ him, but being short of men at the time took him. I will always remember how that man dashed into the fire with buckets of water or shovels of earth, as cool as a cucumber, doing everything that human power could do and much more than most human power. The men called him Patsy, and I will always be grateful to Patsy for his strenuous endeavors against such great odds, as well as to many other faithful ones. It was necessary for us to get out of the canyon now in a hurry, and running through some fire that was already before us we reached the railroad. At the mouth of the stream just before coming to the railroad track was a small schoolhouse (Graham Creek School near the Prichard Ranger Station).

The fire was there as quick as we were. As we lay down on the track exhausted I remember hearing the school bell give a final clang as it fell to the ground its supports being eaten away by the tongues of fire. As the fire came down the west side of the stream toward the mouth of the river the timber was uprooted at just about the time the flame struck it. The falling trees caused a continual roar, and in some places were thrown in rough whirls, resembling the work of a tornado. Arriving at the mouth of the stream, the fire jumped the railroad tracks and river, and started burning in a flat on the opposite side about an eighth of a mile from the mouth of the stream where we had heretofore confined it. On this flat was a cabin belonging to a logging camp, and in this cabin were several boxes of giant powder. This we buried in the river, so that no sparks could get at it.

Taking a much needed rest that night, we began early the next morning to fight the fire on the flat. Had it gotten away from here the whole upper river would have been threatened. The fire jumped the main Coeur d'Alene River and threatened the Grizzlies. Fortunately we were able to get a fire line around it the first day. Once it jumped the fire line, and for a moment the upper river seemed doomed, but by quick work this danger was avoided. The next few days our efforts were confined to stopping the fire on the west side of the river slope. After building several miles of fire line, only to have the fire jump over it in spite of all efforts, we finally succeeded in

running a fire line to the summit of the slope, taking advantage of a rock slide part of the way. Here we stopped it completely on the western front. The watershed in which we had been fighting the fire was now almost burned over. So far however we had confined this fire within it, with the exception of some small areas on the main river. It was away up at the head of this watershed on the east side that the danger now threatened, for the fire had jumped over our lines, and was threatening the large watershed of beautiful timber to the east. We established a camp on this high ridge, separating the two watersheds, and cut a fire line along it. This camp was not in a very desirable place as far as water and provisions were concerned, for everything had to be packed in with horses, and for a time it was necessary to carry the water on our backs with five gallon water bags that we had for that purpose. A logging camp was situated in the watershed below us, and possibly three miles away to the east, nearer the main Coeur d'Alene River. From here our supplies were packed by pack horses coming to camp every two or three days. It was necessary for us first to build a "shotgun" trail as they call a very rough trail in that country, and this was so steep in some parts it was hard for a pack horse to get over it, even with a moderate load.

About this time a man appeared for work who said he had been a cook. We had been bothered a great deal heretofore by not being able to get a man who knew the art of cooking for a crew of men in the "open." Formerly we had done a good deal of the cooking at the ranger station, and at one of the cabins in the watershed below. I determined therefore to give this man a try, and he proved to be a wonder, and soon had order out of former chaos. He had a place for everything, and built a fireplace with stone he found on the mountain top. He had the men line up for their meals, and dished it out to them in a lordly manner as they passed in review. He could turn out some dishes that would make some of our fine hotel chefs take notice, and with very little in the line of provisions or dishes to do it with and under the most trying circumstances.

We were situated on a bare ridge, with a lodgepole thicket a little way below us. The men built Indian "tepees" with this young lodgepole, and we looked for all the world like an Indian village stuck away up there on the top of a high ridge.

There were a great many bears on this ridge, attracted there probably by the huckleberries that grew in great profusion, and which sometimes stayed our thirst, when water was not obtainable. One of the boys in his spare moments made a bear trap of logs. This was made in the nature of a figure four, the bear having to crawl under a heavy log to get the bait. On eating this bait, stick holding the heavy log would release, and allow it to fall on the unfortunate bear. But we were destined not to have any bear meat, much as we wanted fresh meat, for although Mr. Bruin got into the trap one time, he managed to pull himself out.

One time we had been out of bread for some days, and the packer had promised to relieve the situation on his next trip. Bread of some kind is essential to the happiness of camp life. We all were looking forward to the packer's coming. He finally arrived one day, and after unloading the faithful horses, a few of us who happened to be in camp exclaimed "But where is the bread." The packer said he had brought about three dozen loaves, but that the pack horse carrying it had slipped off the trail on a steep rocky hillside, had rolled over a couple of times, and the bread had scattered in all directions. He had succeeded in getting the horses on the trail again, but he had not been able to pick up the bread, as some of the horses had continued on ahead, and he was

afraid of losing them. Accordingly I threw my packsack over my shoulders and went down the trail in search of a few loaves. I found the point at which the horse had slipped off the rocky slope, and soon began to pick up scattered loaves. It reminded me of picking up manna in the wilderness, or stories I had read of breadfruit trees. The loaves were scattered over a distance of more than an eighth of a mile, as the hill was very steep. I had picked up possibly twenty loaves, and was about to leave when I decided I would climb a tree and take a careful look around. Something caught my eye a way down the hill. I went down to it, and there was one of the boxes that had been packed on the pack horse. All around this box were scattered loaves of bread, and I believe I must have picked up a dozen more at this place. This was quite a find, and I returned to camp with a bulging pack sack and rather proud of my ability to secure bread in the wilderness.

Thus passed the first stage of operations at this camp, days of most strenuous toil on the part of everyone, but days which I can now look back to with somewhat of a feeling of pleasure, for the fire at that time was under control, and the life in the camp went along smoothly. But this was the calm before the storm. It had been a fight against nature from the beginning, and so far it looked as if we were getting the best of it. But soon nature was to show us what she was capable of doing when in her rougher moods.

It was near the twentieth of August and our fires had been surrounded by well made fire lines and things looked fairly favorable. But it was extremely dry, so much so that the soil was like powder, and a spark dropped at any point would quickly start a conflagration.

On the afternoon of the nineteenth of August I walked down to the ranger station, to talk over the situation with Ranger Schneider. Our fires were smouldering, but I felt they were under control. The following morning the ranger and I started for the fire camp. The wind was fresh in the early morning and strengthening every minute. When we reached the camp it was blowing a gale. Our "Palouser" had arrived. With great rapidity the smouldering fires below began to gather headway, and in a few minutes had gone over our ridge below the camp with a mighty roar, and down into the watershed we had been working all the summer to protect. But it was necessary for us to get busy now to protect our camp and ourselves. We cleared a place on the ridge where we placed all the provisions. We made a fire line below in the lodgepole thicket, but while doing this the fire jumped up into the crowns of the trees, and the head axeman was almost suffocated. We had to abandon this fire line and confine our attention to work on the ridge above our camp, where the fire was threatening to come over.

It was getting late and I was strongly hoping the wind would die down with the coming of night as it so often does. But there was no let up this time. It was blowing about sixty miles an hour now from the southwest. Our work on the ridge above us was in vain, for with a rush the fire was upon us at this point, then over. No human means could stop it now. Over the ridge it went into our precious timber below. The work of the summer was undone, at least I thought so then. We were too in a somewhat serious predicament. Fire had gone over our ridge below us in the morning, and above us in the evening. Trees were falling and burning on these areas continually. Our food supply was covered with sand and dirt. The men were called in. We sat down and ate what we could.

Never had any of us seen such a wild sight. In the direction of the city of Wallace great masses of smoke were blowing wildly up the valley of the South Fork. Southward toward the St. Joe River stood a great white cloud pillar, apparently still, looking like a great thundercap, or the steam cloud that attends the eruption of a volcano. Many of the men thought it was a cloud and predicted rain at last. Westward the sun was setting in a flying black mass, looking like a great red ball of fire. Our high ridge gave us a wonderful view. The weird scene greatly impressed them, and one could not help having the feeling of fear and awe which the scene produced, as if a great tragedy was about to happen. Many fire fighters from other parts spoke of this later. They said the very air was afire. And tragedy was taking place in all these regions.

At Wallace at this time women and children and the sick from the hospitals were crowding the cars to escape the wall of flame that rolled down the mountainside that same afternoon and burned almost a third of the town. Where the great white pillar of smoke hung townships of timber were being consumed, great trees were being uprooted and snapped in pieces by the thousands with a mighty roar that could be heard for miles, and many a brave fire fighter met his doom on that fateful day and the day following. In all, about eighty men perished in this great fire at our camp.

The wind continued to blow all night. Most of the men, dead tired, turned into their lodgepole shacks. The situation however looked too serious to make me think of sleep. At nine o'clock it was apparent that something must be done. The men were awakened, and each one told to take his blankets and other belongings, and start off down the ridge. Two of us buried all the tools we could find. Our provisions had already been put together in an open space.

It was rather dangerous work going through the fire in the dark on the ridge below, where trees were still burning and falling, from the fire that had passed over in the morning. The trail was completely obliterated by fallen trees, and in the darkness was hard to follow. We made it all right and after walking several miles, lay down on the ground and slept until morning. I was awakened by one of the night patrol men coming in. "Say," he said, "you ought to see our old camp there is nothing left of her." I went back to take a look. The lodgeshacks, provisions and all tools that had been left were completely gone, and the ridge was swept bare. A few tools had been left near the provisions, in the cleared open space, yet only the iron parts were left showing with what heat this fire had rushed over our camp.

We were indeed fortunate to have escaped so well. It was necessary that something be done at once. The men had had very little supper, no breakfast, and no dinner was in sight. They were worn out from overwork, and lack of water both for drinking and washing purposes. Sending some men down to the logging camp for provisions, I went to the ranger station to see what I could get and report the situation to the Wallace office, and try and get some more men to tackle the fire again. Supervisor Weigle answered my telephone call. He said "The situation is serious. A great deal of Wallace has burned and our ranger here (Pulaski) has lost six men in a tunnel. I can't send any more men. You will have to do the best you can without them." I got several loaves of bread at the ranger station, and hastened back to camp. It was a dark day and the sun was hidden, as it was for many days following.

When I arrived at camp, I found most of the men leaving. I was unable to make them stay by either persuasion or force. However some of the faithful few stuck, among whom was my cook fortunately. We made arrangements with the foreman of the logging camp to get a line around the lower part of the fire, which was now burning in the watershed where the logging was being done, and we attacked the fire at the top and finally connected up with their fire lines. A patrol was established on these new lines, which formed a circle four or five miles long, and on completion of their trip around the circle the patrol man would report at the camp. The wind continued to blow for four days, gradually slacking on the last day and getting colder, so that the fire went down greatly. It was traveling down hill, and protected from the wind, as well as being on the more moist eastern slope, so we soon had it under control again.

The last few days on the fire in camp on the high ridge I look back to with somewhat of a feeling of pleasure. The weather had changed. It was getting colder and a feeling of approaching autumn was in the air. Everybody seemed to feel that their hard work was nearly over, and their spirits rose accordingly. Around the campfire at night I had a chance to size up my crew. A number of men who had been with me all through the fire were there. One was a young Englishman who had fought in the Boer war. He could tell many exciting stories of his experiences, and also was quite a poet and singer. Often he held the attention of the whole camp as he recited bits of poetry of his own composition, or sang some old English airs. There were also two Montenegrins who were the best workers I had, and they had been with me from the first. They were very faithful and never seemed to get tired. One time one of these men was carrying water for the camp in two five gallon water bags. He had a hard climb up a steep trail, but there was not water enough for all the men to wash. "That all right, I get some more" he said, and though it was late and he had been working hard since early morning, back he went for more water. We also had two southern boys with us from South Carolina. They were a different type from most of the others, but good workers. They were out for a trip to get adventure and experience in the West, and I believe they went home satisfied.

Another young fellow who had been one of the foremen throughout the fire was with us (Guard Burk, later a ranger). He was the wag of the camp, and always making the men laugh with his jokes. I remember he said in regard to our first cook, "He was so greasy that every morning he had to roll in the ashes of the fire to keep from sliding down the hill."

On the night of September fourth raindrops on our faces awakened us. First only a few fell, and then, increasing, it soon began to come down quite heavily. We lay there and enjoyed it. We were glad to get wet, for we knew our long fight was over. The next day the rain continued, so we broke up our camp, and I bid an affectionate farewell to the faithful crew, the men going on their various ways, most of them never to see each other again. I returned to Wallace, where the people were just recovering from the effects of the fire, which had burned a large part of the town. The hills surrounding the city, which formerly had been so green and beautiful, were now bare and black.

One of the first things that we found it necessary to do after the fire was to clear out our old trails. Most of these were absolutely impassable, and not an easy matter. Gangs of men were out on this work all the fall. Great tree trunks were piled across the trails in twisted and broken tangles,

often five trees high, and it was necessary to cut through all this with axe and saw. This work took much time and money.

PLANTING WORK

Late in the fall of 1910 the government sent to the Coeur d'Alene Forest about a ton and a half of walnut seed, red oak acorns, and hickory nuts. This seed was sent as an experiment to see if such deciduous trees would grow so far away from their eastern home, and in a country where their only neighbors would be mostly the conifers. It was a very interesting experiment, for there have been many conjectures, as to why the hardwood trees were not found to any extent in this mountain region of the west.

As it was too late in the season to plant the nut seed that fall, they were stored for the winter in a long trench, dug in the ground, where the nuts were laid several layers deep, covered over with plank, and then with earth, where they could keep cool and moist, but not rot. The following spring they were in fine shape for planting, the walnuts just beginning to sprout a little. They were planted in May in two large areas, covering altogether about ninety acres. A crew of fifteen or twenty men did the work. The nuts were planted four by four feet apart. The men had pointed sticks with a projecting iron piece near the pointed end, on which the foot was placed, to thrust the stick into the ground. The nuts were carried in bags hung around the neck. The head man or "Head nut" as he was nickname by the planters, obtained a straight line from a row of red flags, placed in line on long straight poles. The second man worked four feet from the first man, and a little in the rear of him. The third man worked in the same position from the second man, and so on down the line. When the head man came to a flag, he passed it down the line to the end man, who placed it in the ground four feet from the line he was planting. In this way the alignment was well kept, and the area necessary to plant any given amount of seed could be figured in advance.

The red oak and the walnut came up fairly well. It was strange a few years later to go there and see these little fellows growing so far away from their natural home, surrounded by strange neighbors. Especially in the fall were the red oak pretty, for they turned a brilliant red, and made themselves quite conspicuous. The cold nights of the Coeur d'Alene were apparently not the best thing for the black walnuts; nevertheless they grew fast in the summer, but many got winter killed. However the experiment is still going on and the final outcome will be interesting.

After the fires much more attention was given to planting and restocking denuded areas. The tremendous loss through the non-use of vast areas of waste land began to make itself felt to some extent. In the fall of 1912 almost twenty four hundred acres on the Coeur d'Alene National Forest were seeded to white and yellow pine, the seeding being done with corn planters (the little red oak were so attractive that a potted one was soon seen in many of the Wallace homes). This area was rather inaccessible, and it was necessary to build three miles of trail over a high ridge to get to it. Many a farmer's boy has used a corn planter all day where the fields are level and free from obstructions, but it is quite another thing to work steadily all day long, climbing steep hills and rockslides, and jumping over windfalls, all the time trying to keep a straight line, and an even distance apart. A small strip of western yellow pine plants were planted, this strip running clear across the seeding area, including all slopes. This was done in order to get comparisons on

planting and sowing, and comparisons on the rate of growth on various slopes. At this camp our supplies were first shipped by rail to the town of Prichard, Idaho from Wallace, a distance of about thirty-eight miles. From Prichard they were hauled by a wagon a distance of six miles up the Coeur d'Alene River, much of the road being in the river bottom, to the mouth of Lost Creek. From the mouth of Lost Creek, they were packed on horses, and taken about five miles over the temporary trail, which we had built. The difficulty of getting supplies to these inaccessible places is one of the chief factors for a logging company to consider, when undertaking a logging operation in these regions.

The area that we were attempting to restock was almost completely denuded of tree growth. Several fires had run over it and the last one in 1910 had almost cleaned it up. Hardly a seed tree was left which might in time restock the area. It was an ideal place for such work.

One night at this camp we had a very heavy windstorm. There were several burnt snags standing near our tents, and we were much afraid one of these might go over. These old snags are one of the most dangerous things with which a woodsman has to contend, and they are always careful to pitch their tents away from the reach of one. In our case we had chosen as clear a place as it was possible for us to find. On the ridge above us we could hear almost a continual roar, as tree after tree went over. Fortunately being between two ridges we were not exposed to the wind, and few trees near us went down. The only mishap we had was when a tent blew down in the middle of the night. Although this was a large tent and had quite a number of occupants all slept soundly until morning, in spite of the fact that the canvas was lying directly upon them. We had quite a character in that camp. He had been a circus performer, gave balloon ascensions, was a vaudeville actor and a singer, and could turn his hand to most anything. He used to get out in the evenings and in his old boots do stunts on the slack wire which he had found in camp, and strung up between two trees. One time he told me his greatest ambition was to invent a parachute, in which he could safely drop from an aeroplane.

The following year I read in a Spokane paper where a man of the same name, Francis Thayer, had attempted to drop from an aeroplane in a parachute near Seattle, and was drowned in Puget Sound. The wrist strap had broken or become released which attached him to the parachute.

The work on this area lasted about a month. The following spring a large area was planted on Placer Creek near Wallace. This was planted with western yellow pine, Douglas fir, and some western white pine. In order to get to it, so that our planting could be done in the month of May it was necessary to cut through a snowslide which completely blocked the road at one point. In all about five hundred thousand young trees, mostly two years old were planted at this place. This covered an area of approximately six hundred acres. The trees were sent to Wallace from the Savenac Nursery at Haugan, Montana, and from the Boulder Nursery at Helena, Montana. They came done up in bundles of one hundred each, all packed in wet moss, and placed in large strong boxes. Some of the fastest men on the work would plant as many as a thousand trees a day. Our camp at this place reminded me of a young array, for at one time over a hundred men were employed here. At this planting camp I suggested to Pulaski the value of a tool that a man could dig holes with and plant trees also. Pulaski produced one.

Possibly it may be seen to some degree, from what has been said above, something of the nature of what the National Forests are endeavoring to accomplish, in selling their mature timber, in restocking their waste lands, and possibly above all things in giving these lands adequate fire protection. Experience along these lines has improved the methods used wonderfully and the Service is every day becoming more efficient.

The remainder of my work in this Service was of a somewhat similar nature to that already described. I had many other wonderful trips and wonderful views. I agree with most westerners that the mountains do have an inspiring and uplifting effect on those within their environs. In looking at them from some high divide, I have often thought how they typified all nature. There is the great lofty peak, from which radiate out in various directions great spurs, and in turn from these spurs come ridges, and from these ridges smaller ridges, and so on till they reach water level. Everything seems to be composed of smaller parts. The most powerful telescope cannot find the end of the universe, but constantly reveals new worlds and new suns; and the most powerful microscope cannot separate matter into its smallest units. Once it was the molecule; now it is the ion. The moons revolve around their planets, the planets around a central sun, and this whole system or universe is probably in turn influenced by a larger controlling body, around which it may be revolving. It is the theory of limits over again; on one side approaching zero, on the other side infinity. Thus, a great mountain peak, lifting its massive head above the clouds, covered with eternal snows and reigning supreme over all times and civilizations, may well typify the Infinite.



Forest Service cabin constructed by Rangers Wilkerson and Tuttle in June 1899 at Alta, Montana. Believed to be the first Forest Service building and the first flag floated by the Forest Service.

THOMAS G. MYERS
Senior Forest Ranger
Procurement & Supply
(Retired 1936)

Chamberlain, S. D.
c/o Robert M. Myers
April 4, 1944

Reference is made to the first ranger examination which was held in Neihart in August 1905. I had put in my application to take this examination, and as I wished to get some pointers on the job, I went up to the Belt Creek Ranger Station about three days before it was to start. Wellman Holbrook and a lad by the name of Ratliff were there, and I had them show me how to read the Forest Service compass and other things that had a bearing on the examination.

The first night I was there I went out to cut up some wood and found the handle in the ax broken. I spoke to the boys about it and they both asked, "Can you hang an ax?" I told them I could, so they dug up four with broken handles and I put in new handles and ground up two of them.

Well, the day of the examination we were all at the office at Neihart. As I remember, there were fifteen of us waiting for the officer to arrive who was to hold the examination. He finally showed up. One of the axes was leaning against the office building. He picked it up and said, "I suppose the axes will have to be rehung before they can be used." I spoke up and said, "Brother, if you can do a better job I'll take my hat off to you." He said, "It is a good job."

We were to have three days to take the examination, but the officers cut it to two. We had a half day of written work, a half day to see if we could pack a horse, and one day in the field, estimating and mapping an area of timber and reading the compass, then cutting down a lodgepole pine tree each and telling where it was to fall. My turn came and he pointed out a tree with three bends in it and asked me where it would fall. I pointed to one of the boys and said I would use him for a stake, but he stuck a stick in the ground and moved away. My guess was good; my tree almost hit it.

I finally heard from the Civil Service that I had passed the examination. The next thing was to get an appointment. I wrote the Supervisor at Neihart about a job on the Little Belt Reserve, now part of the Lewis & Clark. Along the following March I received my appointment, to take effect May 1, 1906, at \$900 per annum. I could not report for work until June 1, which was O.K. with the Supervisor, so that was when I started work for the Forest Service.

There were four new men besides myself, and we started in at the Belt Creek Station building fences and fixing up the old house and barn there. From Belt Creek we went to Dry Wolf, and built a log house and fixed up an old barn, and built quite a lot of fence for pasture and meadow.

The first of August I went over to the Judith, as I was to have charge of that district. There was an old log cabin that was built in 1876. I found out later, that was to be my home, and there was an old log barn and a shed, but not any pasture under fence, so I started in cutting posts. The

other boys arrived and we gathered up a lot of barbed wire scattered through the timber, left by the sawmill outfit that had been located here for years. I wrote the Supervisor about money to buy wire to finish the fence. He replied he had no funds for that, so I bought it myself.

I had my own ax and a few other tools, as there was only one hand saw, one one-man crosscut saw, and an old pole ax.

About the last of August the Supervisor and his ranger assistant, that was supposed to be at the Belt Creek Station came into the Judith Station on their way to the Musselshell for a ranger meeting at the Spring Creek Station. So it was pack up and go with them. We left the next morning, going up the South Fork of the Judith. It started raining by the time we got to the Trask ranch. I wanted them to stop there for the night where we could cook our supper out of the rain, but no, we had to go on and make camp in the rain. No tents, and we had to cook our hot cakes over a campfire in the rain. We had them fried, boiled, and spoiled; but they were good. The Supervisor told us we must not sponge off of the permittees. I said, "Hell, all we would do is use the house to get in out of the rain." There was no one living there.

Well, the next morning we pulled out for the head of Haymaker Creek, but before we got there the fog got so thick you could not see the fellow twenty feet ahead of you. I brought up the rear and every time they found the trail I put up a fire-warning notice (the old cloth type).

We did not make it into Haymaker that day as the Supervisor got lost. He was the only one who had ever been through that way. We finally made it to the old Spring Creek Station after four days' traveling. I found later that the trip could be made in one short day's travel. Grub was getting low so two of us had to go to Martinsdale for supplies. Five days. Went fishing the sixth day; had good luck. There was a rancher the Supervisor wanted to see, so we all rode up the Musselshell fifteen miles. Seventh day gone.

The eighth day we pulled out for Hoover Springs; camped there for the night. The rancher we went to see yesterday made up a party and there were four good-looking girls in his crowd, so we had company for the night. Ninth day - packed up and pulled out for Neihart; got in that night around 10 p.m. Tenth day - split up some wood for the Supervisor's house and the office, then rode down to Belt Creek for the night. Eleventh day - pulled out for Dry Wolf Station with Ranger Ensleth. Twelfth day - pulled out for Judith Station. When I arrived there, I found about 100 head of cattle in the patch of oats I had planted for hay. Some ranger meeting!

On my first advertised timber sale, I was to have help from the office in working up data, but no help arrived. So I studied my Use Book on "Timber Sales," and went at it alone, surveying the area, making my estimate of stand and notes for forest description. Finally got my field work done and came back to the station and started in writing up estimate sheets, forest description in longhand (no typewriters in those days). Well, I worked on the damn thing and after getting it finished, map and all, I thought it looked good. So I sent it in to the office. In about ten days or more I got the thing back from the office with a six-page letter, telling me how much I did not know after being in the Service for six months and about all the mistakes I had made. Well, I got mad and the next morning I saddled up the pony and that night I was in Neihart, but did not see the Supervisor until next morning, when I went into the office, put his letter and everything on

his desk, and asked him what the hell he wanted. We went over the papers together and he approved them, and the sale went through.

My first year, 1907, with grazing applications and permits, I only had six cattle and horse permittees, so I rode from ranch to ranch getting their applications. I rode in to Mr. Ethen's ranch; got there in time for supper. When I told him icy business he said, "I'll be damned if I will apply for 500 head." I asked him who said anything about the number he should apply for, and he dug up a letter from the Supervisor stating his application would not be accepted for less than 500 head on and off. During the fall and winter I had been counting the number of head of his stock I found on the Forest, and I never found 350 head on at any time. His stock were not near the Forest through the summer, but he said he was willing to apply for 350 head on and off yearlong. I handed him the application and told him to make it out the number he wanted to, and he applied for 350 head on and off yearlong. I O.K.'d his application and sent it in to the office. A few days later I received a letter telling me I should not have O.K.'d this application and to get another for the 500 head. Well, I made another trip to Neihart, taking with me my counts of the number of head I had found on the Forest. The application was approved for the 350 head.

This Supervisor and his brother had a ranch in Belt Park and they had about 60 head of cattle. The ranger at Belt Creek had this brother make application for their 60 head. When it reached the office the Supervisor said, "Here is where I save a little money," so he tore up the application, but issued the permit.

The storekeeper in Neihart had a few head of stock, and his application was approved. One day the Supervisor was in the store and the man said, "Here is the money for my permit." The Supervisor said, "Never mind the money; just give me credit for it on my account."

I was in the office at Neihart when a Mr. Darling, engineer from the Washington office, was making up a list of tools and equipment that would be needed for building the telephone line on the Forest. When they came to the reels for paying out the wire the engineer said we ought to have one single and one double reel. I laughed and asked him what we needed the double reel for. He said, "You might want to string wire out both ways." I said, "Can't we do it with one single reel?" We got both. I asked the engineer if he was working for the Forest Service or the outfit that had the stuff to sell. He did not have much use for me I was told later.

Paul G. Redington took charge of the Forest in November 1907, and after he got things lined up he put W. S. Perrine in charge, and Perrine put me in charge of completing the telephone line to Judith Station. I got through with it the last of November after cutting the crew from 28 to 12 men.

In 1908 I received my authorization for \$450 for building the dwelling at the Judith Station, blueprints and all made by an engineer by the name of Work. The building was 24x24 with hip roof. The lumber was bought in Great Falls, shipped to Benchland, and I had to have it hauled from there by team 26 miles to the station. It was about 13 miles to where the logs were cut, at a cost of \$1.25 per log, which was not bad.

What got me down was when I started studying the blueprint and found it called for the hip rafters to be 24 feet long. I called the office and told them I thought the hip rafters should be cut 20 feet long, but I got the "No, don't do it" answer, but to follow the blueprint; so I used the full 24 feet for pattern, but when I put two of them up I saw the roof with that pitch would split a raindrop. So I cut off 2 feet and tried that, but they were still too steep, so I cut off 2 feet more and it was still quite steep, but I let it go at that.

I did not have a level so I wrote in to the office for authority to buy one, but got word back no money to purchase level, so I bought one myself.

When I got the walls up and roof on, all I had was one big room down stairs and plenty of room upstairs but no floor. I had a good neighbor at the American Sapphire Mine who said I could use their team and sled to haul logs to their mill, so I went over and cut about 3 M feet of logs and sawed them into boards and 2x4 and put in partitions and a rough floor upstairs. I still had lumber left, so I put a porch across the front and one half-way on the rear of the house; but no shingles for the roof. The Supervisor came into the station, and in looking things over asked me where I got the lumber. I just said the porches looked awful without shingles, and by gosh I got them. When the fiscal year ended the office had to turn back about \$3300 of unspent funds. Was I mad? NO. I finally got the dwelling in fair condition.

I think it was in the fall of 1909 that two rangers were picked from each Forest to attend the ranger school at Missoula. So I was put in charge of Belt Creek District while Ranger L. T. Morgan was at school. There were all kinds of timber sales from one end of the district to the other saw timber, smelter poles, mine props and ties and cordwood. At that time the district extended from the Divide south of Neihart to Ming Coulee southwest of Sand Coulee.

The office sent the Forest assistant out here to map and estimate a large block of lodgepole pine for props and tie timber on O'Brien Creek, and requested me to assist him in getting started. So I went up and helped him run or survey out two lines almost one mile in length and about a quarter mile apart for a working base. Then I had to go to scale up sawlogs at Logging Creek and Ming Coulee. When I got back there was a letter from the office telling me to assist the boy with his estimating. I spent three days with him and found out he had not done a thing since I left him. There was about three feet of snow up there. I had to go into the Barker country to measure cordwood and up into Belt Park and scale up sawtimber and mark trees for cutting. Plenty of snow here too. When I got back to Belt Creek Station and got my mail sent down from Neihart I found a wire from the office saying, "Please help Forest assistant with his work." Well, I almost hit the ceiling. I went up to Neihart and told the boy if he would just take over my work and do it I would try and do his for him, but I helped him for a few days more. I had to stand my own expense, while he had his paid. He was in Neihart through December, January and part of February. The Service never got anything from his work as Ranger Morgan completed it after he came back from Missoula. We had plenty of snow that winter. I traveled on skis all the time.

I had a little experience in the fires of 1910 on the Coeur d'Alene Forest. I had just got back to the Judith Station from my honeymoon trip when I got orders to report to the District Office in Missoula for assignment for fire duty, and was sent to Wallace, Idaho, to report. I got in there on Friday night and was sent out to the fire at the head of Boulder Creek out of Mullan to size up

the fire and report to the office Saturday night. I walked from Mullan up to fire camp nine miles; arrived at the fire camp about one in the afternoon. Put in all afternoon going over fire, and when I got back to camp at 7:30 p.m., I was too tired to make the hike back to Mullan so stayed at camp. This was the night of the big blow-up and we had fire all around us. All of us were burned quite badly and one boy lost his life. I was only on the fire a half day when the blow-up came; spent the rest of the season in the hospital and reported for duty after the first of January 1911.

Ranger Bonham and I had an argument with a grazing inspector from the Regional Office in 1911 or 1912 about the use of rock salt for cattle while on the Forest. The inspector did not approve of the use of rock salt. When we asked his objections he said it took too much of the cows' time. Bonham said, "Hell, what is time to an old cow?" We kept on requesting the use of rock salt.

I was on a grazing inspection with one of my Supervisors at another time. (I only had fifteen of them during my twenty-five years at the Judith District.) It was quite early in the spring. We had covered most of the lower C&H range and rode out on the divide going over some S&G range. I was ahead with pack horse when the Supervisor called to me, saying "Meyers, you have bedded sheep too long here." I pulled up and said, "What did you say?" He told me again. I said, "My God, man, sheep have never bedded here." He said, "What is the matter? The grass is all killed out." I said, "The snowdrift has just melted; that's all." A few years later we were riding over the range and he said, "Myers, there was a hell of a lot I did not know when I came here." I laughed and said, "Yes."

In the fall of 1909, I think it was, as that was about the time we were getting new Supervisors quite often on the old Jefferson, I did not have much work on hand and was in Hobson one evening when the train to Great Falls arrived, so I went into Great Falls. As I had not had any letters from the office for some time, I thought I would give them a call. Got in quite late and no lights in the office, so I took in the town that night. Next morning I went up to the office, and found a new force in charge - a Mr. H. Graff as Acting Supervisor, and a new clerk (I do not remember her name). I told them who I was and where I was stationed. Graff spoke up and said, "Gosh, I am glad you came in," and handed me two telegrams from the District Office, both requesting that his office submit the annual grazing report. Graff asked me what he should do about it. I said that should not be very hard, and he said, "Hell, man, I have been out on a timber cruising crew in Idaho all the time I have been in the Service." He had got a wire from the District Office to go to Great Falls and take charge of that office. Well, he had all right, as he had all the files out of the cases and piled on the window sills, and whenever he wanted to look something up he would start in at one end and go through the folders until he found it. Some job. The clerk was having an easy time. Well, to make a long story short, I told him to get out a letter to the rangers requesting them to submit a grazing report. He wrote the letter out in longhand and gave it to the clerk to type. I got a chance to ask her if she could not take dictation, and she said, "Sure, but he can't dictate, so there you are." I often wondered why that poor boy was put on the spot like that, for I never heard of him after he left Great Falls. We got out the grazing report, but it was a little late. I know that there were three of the boys on the Forest force who could have handled the job much better. But in those days the forest was in a messy, but probably the D. O. thought an outsider in charge would be best for the job.

Have any of you ever put in a night with a crazy sheepherder? Well, I did, and what a night! The poor cuss had been seeing bears all day, and when I came into his camp about 7 p.m. I found the poor fellow trying to cook his supper carrying his gun in one hand. He would not put his gun down, and all he could say was "Damn big bear; I shot him." I helped him get supper and while we were eating he pulled a big knife out of his belt and gave it to me (a regular dirk with a 6-inch blade), so all he had was he gun. I pitched my tent off some distance from his and spent the night. Not much sleep, but I rested some, as he was up several times through the night and would fire his gun and he kept talking all night about the bears. In the morning he was a little quieter and after we ate breakfast I packed up and told him I would get word to the camptender to come to his camp. In about three days I got on the phone and called Ranger Bonham to tell him about the crazy herder, but he and the camptender came into his camp the day I left and took him out. He told them he killed that damned big ranger.

My first contact with an officer from the District Office was back in 1911 or 1912. Mrs. Myers and I were sitting out on the porch when a car came down the hill to the station and a man got out to open the gate. I said to the Mrs., "That's John F. Preston from the District Office." She said, "Do you think he is going to fire you?" I said, "I don't know; wait and see." So when we were eating supper Mrs. Myers asked him why he had come to the Judith. He told her he had been in the office at Great Falls and he asked them where he could put in a few days' inspection so that he could visit his brothers over the week end, and they sent him out here. We rode over on Sage Creek, where I had a timber sale for mine props and ties. As we were walking over the area, John F. said, "Myers, what are you trying to do here?" I said, "Sell timber." He laughed and said "It looks like it." So I got some instructions in regard to marking trees for cutting. This was the first time I had seen Preston since he was Forest assistant on the Forest back in 1908.

Here is something that seemed rather odd to me. It was the fall of 1931 while I was at the Remount. The stock all had the distemper and the veterinarian was working over the bunch when someone said, "Hello, Tom." I turned, and it was Major Kelley. While we were talking he noticed his saddle horse, and he asked me what was the matter with him. I told him he was just getting over distemper. He asked me if it was bad and I told him yes. About that time C.P.F. saw him and came over where we were. The Major said, "Tom tells me the stock has the distemper." C.P.F. said, "Yes, a light case." Later that evening Williams said to me, "Why the hell did you tell the Major the stock had the distemper?" I said, "Why should he not know about it?" And he said, "Why bother him about it?" So we had it out. In January I was ordered to report at the warehouse. I have often wondered why!

CLARENCE B, SWIM
Assistant Forest Supervisor
Gallatin National Forest
(Retired 1939)

602 North Garnsey Street
Santa Ana, California
February 23, 1944

My father was born in eastern Iowa and spent his boyhood life there. One of his playmates and early school-day friends was Will Cody, who in later life became Buffalo Bill and Colonel William F. Cody of Wild West show-days fame. Colonel Cody founded the little town of Cody, Wyoming, on the Stinking Water River (now Shoshone), and owned the Irma Hotel, named after his daughter Irma, and a livery stable there. He also owned several ranches in the locality, including the TE on the upper South Fork near the mountains, and the Carter ranch near the Carter Range.

My father enlisted in the Civil War at the age of sixteen as a drummer boy, and remained a soldier until the end of the war. After the war he married and raised a large family. He moved to western Iowa, where many lean years were spent. He finally purchased a farm in eastern central Nebraska and moved his family there. Most of my active farm life was spent on this Nebraska farm.

In the spring of 1903 I decided to leave the farm and seek fortune farther west. Colonel Cody's career and exploits appealed to me. I decided to cast my lot in the Big Horn Basin country, and bought a ticket for Cody, Wyoming. I had never been a hundred miles from home and of course was a babe in the woods in so far as the ways of the West were concerned. The first spring and summer at Cody I tried my hand at ranching, and did a little irrigating, etc. I tried a little railroading with intention of becoming a fireman. There were fifty-seven on the list ahead of me. I nevertheless started and fired up the engine the first night in the roundhouse at Cody. The following day I was called on to clean out the coaches. I cleaned one and notified the foreman that my career as a fireman was now ended, and left the job permanently without even collecting my wages. From Cody I went to Sheridan and tried my hand at coal mining, I might have been successful at this job had it not been for a big burly Irishman. I ruined a perfectly good water pail over his head, and here ended my experience as a coal miner. In the late fall of 1903 I left for the old Nebraska home, but during the early spring of 1904 I again returned to Cody.

There were a considerable number of close relatives of Colonel Cody in Cody and vicinity at that time: three sisters, several nephews, a niece, etc. The oldest daughter Arta had lived on a ranch in the vicinity of Poker Jim Butte in the Tongue River country. One sister was a manager of the Irma Hotel, and one of the nephews, Roy Meyers, was manager of the ranches and the livery stable. I became a close friend of Mrs. Goodman, one of Colonel Cody's sisters, and met and was acquainted with all of the remainder, including Colonel Cody, who visited the locality occasionally. A short time after entering the Forest Service in the spring of 1904 I was talking with Roy Meyers. He asked, "Are you a Forest ranger? God, rangers are getting thicker than fiddlers in hell." The job of being a Forest ranger at that time did not rate very high.

There may be some hardened sinners who might scoff at attending church. My attendance at church in Cody one Sunday evening in the early spring of 1904 resulted in a complete change in the affairs of my life, and the beginning of a career that remained unbroken for over thirty-four years. I was seated beside a sturdy, pleasant young fellow about my own age. We exchanged the usual few words as strangers might. He introduced himself as Clarence N. Woods. I replied that my name was Clarence also, but Clarence B. Swim. This, of course, was before the services had gotten under way. Woods asked me if I was employed. I told him that I did not have steady work. He told me that he was a ranger on the Shoshone Forest Reserve, and for me to call at the Supervisor's office the following morning and that he might be able to arrange for me to start work. I called at the office; Woods was the only person present. After the usual questions of qualifications, health, etc., he told me that with approval of the Supervisor he felt sure that he could start me in on Forest Service work as Forest guard at \$60 per month, pending final approval and appointment from the Washington office.

About an hour after my arrival at the office the Forest Supervisor came in - W. H. (Dad) Pearce. Mr. Pearce was a short, stocky man with good physique, and with the bearing of an Army colonel. He had a short, grayish moustache, and wore a well-fitting olive-drab uniform and a gray Stetson hat, western style. Even to my unsophisticated mind it was evident that Mr. Woods was the man at the helm.

My temporary appointment and assignment took place during early May of 1904. The Shoshone at that time was known as the Shoshone Division of the Yellowstone Forest Reserve, and was under the Department of the Interior, Headquarters were, as mentioned, at Cody. The Washington office, in its relation to the Forest, functioned somewhat as it does today. However, over the Supervisor was a Superintendent, in this case Mr. A. A. Anderson, who maintained his home in New York City, and was connected with the Borden Milk Company by having married one of Mr. Borden's daughters. Superintendent Anderson owned and maintained the Palette ranch on the upper Gray Bull River at the mouth of Rock Creek. Mr. Anderson did a little painting as a hobby, hence the name "Palette." A few miles below the Palette ranch was the Z-T ranch, owned by W. H. Pearce, which no doubt had much to do with his appointment as Forest Supervisor by Mr. Anderson.

I was given a lineup of the equipment, I would need to start out with a couple of horses, a riding and, pack saddle, bedding, a tarp or tent, an axe and shovel, cooking outfit, a gun and grub for at least a couple of weeks. My bank account was already low, but I made the best of it and started out, on this new adventure. I bought a little black nag, with black eyes, for a saddle horse, for \$50. I bought a glass-eyed Indian pony with ring bones for a pack horse. I bought a Collins and Morrison saddle for \$56, and pack saddle equipment. Next was bedding. For a greenhorn I did pretty well, I bought a 25-35 Winchester rifle and a 38 Colt that one couldn't hit the broad side of a barn with. I later traded this worthless Colt in on a Luger pistol, an excellent, accurate gun. The American Army at one time was armed with the German Luger. The Army became wise to the fact that the United States might at some time in the future be at war with Germany and discarded the Luger in favor of the Colt's. These Army Lugers were offered to members of the Forest Service and other Government officials for \$5 each. I bought one, wore it out and bought the second (but not from the Army), which I still have. I was riding along with a Wyoming game warden on one trip. It was about time to camp. A flock of young sage hens, just right to fry, ran

across the trail. I shot three, later had them for supper. The season was not yet open. The warden's only remark was that they were fried to a "T." Next on the list was grub. I bought bacon, ham, flour, baking powder, beans, canned fruit, dried prunes and a box of loaf sugar. Woods spent the evening with me giving final instructions and teaching me the art of packing and throwing the diamond hitch.

The following day I packed up early and left for Wapiti on the North Fork, thirty miles from Cody, with many a squeak of new leather, and spurs that certainly did "jingle, jangle, jingle." I first led old Baldy, then tried driving him. I thought, "Not so bad, everything is under control and working nicely." I did notice old Baldy looking back at me frequently with his one glass eye. Fifteen miles out of Cody we came to the South Fork of the Shoshone. The stream was running high. Old Baldy crossed the bridge, and without warning whirled and plunged down the steep embankment into the stream. My new bedding, my flour, my loaf sugar ("My God," I thought, "everything is gone!"), my two weeks' grub supply - and me all but broke flat. I tied the little black-eyed nag to the bridge and rushed back to the opposite side. Old Baldy was bravely fighting the swift current, which carried him rapidly downstream. He put up a game struggle. When he reached the shore I said, "Whoa, whoa; here, let me help you." I pulled at the halter and he struggled up the steep, rocky bank, with water running from each of the panniers. The old S-of-a-B, I had already forgiven him for bringing my outfit safely across the river. The pack did not look so bad. It was still riding nicely. A more meek and docile pack horse one had never seen. We arrived at Wapiti without further incident or mishap. I figured that I was crippled for life. The saddle was new and stiff, the stirrups pigeon-toed in and were laced too long. I was a complete wreck, or thought so at least. Thirty miles in a new saddle, and me never having ridden before, was too much for me.

Wapiti (Indian for elk) was a ranger station built on a narrow river flat a short distance below the mouth of Elks Fork or Wapiti River. Harry W. Thurston, a Bostonian, was the ranger in charge. This station was being remodeled and enlarged to be used as the Supervisor's summer headquarters. The ranger's cabin was a small, one-room log cabin with dirt roof, typical of Wyoming cabin construction. New log cabins were being built for the Supervisor's home, with a little cabin adjacent to be used for the office. These were all of the same type of construction as the ranger's cabin. My job was to help put these buildings in shape for the Supervisor, who would move the office up shortly.

I worked hard but kept a constant lookout for game. Elk were plentiful, and I felt sure that bear or coyotes might show up at any time. During my second evening, about sun-down, I did see a bear - or thought I did. A black object was moving about among the sage brush about 200 yards away, near the road. My little 25-35 had not been used. From the cabin door I took a couple of quick shots at this bear. Denny Start called out, "Hey there, you damn fool, you shoot my dog and I will take a shot at you." I had not seen him.

Ranger Woods arrived from Cody. Work on the cabins progressed rapidly and in a few weeks the Supervisor's office was moved to the new location. The entire outfit occupied the one small cabin room. One Sunday Woods asked me if I would like to go fishing with him. I had a complete new outfit. We rode up the river a couple of miles to find fishing waters. Woods carefully explained the art of trout fishing, and above all things else to keep out of sight. He

pointed out where I was sure to catch fish. I cast and tried every known art without so much as getting a single strike. He pulled out nineteen natives of good size. We traded places. I tried both bait and naked hooks, and finally landed one small pea nose which constituted my catch for the day. To me it remains a secret to this day why I did not at least catch one trout.

June was at hand. I had received appointment as Forest guard at \$60 per month, and was now a member of the Forest Service.

I was intensely interested in the mountains. The work, and each new experience, left its lasting impression. There is always a period in one's life when such experiences and lasting impressions occur. One season when I was nearing the close of my forestry career I made a trip to the Gallatin Valley from Missoula to interview a number of the early-day settlers and obtain affidavits that would have bearing on the Northern Pacific case. The Government and the Northern Pacific Railway Company were in litigation in connection with the land grant. I interviewed about fifteen of these oldtimers, none less than seventy-nine and some as old as eighty-three. They were all strong characters, early-day builders of the West. I was astounded at the clarity of their memory in connection with early-day events, and their ability to call to mind dates and incidents of the sixties, seventies and eighties. They could call up experiences of forty-five and fifty years previous much more easily than more recent events of their lives. The reason was clear. These early-day experiences happened during the impressionable period of their life.

Early summer was approaching. Snow was melting sufficiently from the higher slopes to permit of pack and saddle travel. Ranger Woods and I returned to Cody where he organized and equipped a party composed of Forest rangers to survey and mark the Forest boundary from the Washakie Needles, the southern end of the Shoshone Reserve, northward to the North Fork of the Shoshone River. Each ranger took his own outfit and grub for the trip. The provisions of each were pooled, and the pack string made ready. Woods was in charge of the party. Charlie Sherwood was compassman. Charles Anderson and myself were chainmen, and Ed Heavey and his assistant handled the packing and were responsible for campgrounds, etc. We left Cody. Our first day took us to the Carter Mountains and my first experience at real camping. I was deeply impressed, naturally.

The following morning, after a breakfast of sourdough hotcakes (the Shoshone rangers all carried their sourdough can), we were packed and on our way, and, to me, following a blind trail winding through the timber and among the boulders, but steadily climbing. After floundering through snowdrifts we finally reached the summit of the Carter Mountains. Here to me a new world opened out. This was my first view from the summit of a high mountain. To the eastward at least 125 miles distant we could see the blue outline of the Big Horn Mountains. Near the south end of this range was a little white spot. This white spot was Clouds Peak, not far from Buffalo, and over 13,000 feet in height.

The rough, semi-arid Big Horn Basin, in its seeming desolation, spread out before us to the east and southeastward. To the westward was a sea of snow-capped peaks, to me seemingly endless and without plan. These were the Rockies proper. Frances Peak, near at hand, covered with snow, over 13,300 feet high, stood out clear-cut against the sky, and the most prominent among the peaks. It is little wonder that I stood entranced and spellbound. My dreams of the mountains

had been realized. I had looked forward to this or a similar trip since early boyhood. It seemed natural that I was there, and I felt at home and a part of the mountains - it was the plan of things.

I never tired of the mountains throughout my entire term of service, for I felt as much at home in the mountains as a child playing in his own back yard. From our present home in Bozeman we have a broad view of the Bridger range. No day passes when I am at home, and this range is visible, which is 95 percent of the time, that I do not stand before the window and study the formations and changing colors with an untiring interest. Forestry to me was not just another job, something to earn a living at; it was a planned part of my life. I lived it, and dreamed it, and breathed it.

Our little caravan moved on. We crossed the Carter range and camped in a grassy park along Rock Creek. Several miles of boundary were surveyed and marked from here. Several little impressive incidences occurred. One evening at close of the day's work, equipment was left on the summit above camp, nearly 3,000 feet. The following morning someone suggested that we run a race to the top. We did; all came out even. A silly thing to do. The following evening I noted a white object - an animal feeding on the mountainside about a mile away. I investigated, returned and told the boys that I thought the animal was a mountain sheep, although I had never seen one. Woods suggested that it was probably a stray angora goat from some nearby ranch. I said, "If so, we are going to have some goat meat in camp." I returned with the rifle, climbing carefully around the mountain, and in a half hour had killed the animal. After reaching the carcass I felt pretty sure that I had shot a doe mountain sheep. The boys were watching from camp, and came up with a pack horse. They tied the sheep on and quietly advised me that I had killed a mountain sheep out of season. I told them that in this case we would all land in jail together.

I was the tenderfoot of the party, and of course subject for a good many jokes. One was the old rock rabbit joke. We were running the line across a long talus, or slide-rock slope at the base of the rimrock near the summit of the mountain. We heard a distinct "baa." The boys stopped and said, "Hear that mountain lamb." They explained that Superintendent Anderson was offering \$50 for a live mountain lamb, and here was our chance to get one. They also explained that mountain sheep would always cache their lambs in the rough slide rock as protection from eagles while they went to the top to graze. We diligently searched among the sharp, ragged rocks. When we reached the spot where we heard the plaintive little "baa" it would plainly sound in another locality, and we would hurry there "Hell, Swim, we can never catch one of these little rock rabbits," the boss said, "let's get to work." These ignorant rangers didn't even know that the name of this little fellow wasn't rock rabbit at all, but pika.

Our work being finished on Carter Mountain, we packed and headed southward for the Washakie Needles. We stopped for the night in the little town of Meteteese. I thought we would camp out some place. Not so; the hungry fellows wanted a real supper, and headed for the nearest place where meals were served. I was broke and didn't have even a five-cent piece. I did not join them but went out for a walk while the others enjoyed their supper. Some kind-hearted soul loaned me \$5, but little did I realize that this \$5 would have to be stretched over a period of six weeks before my first little \$60 salary check was to arrive. Our next camp was on Wood River, at the point where this turbulent stream leaves the rugged mountains. I made up a bed of pine boughs a

little apart from the others. Before turning in for the night Woods came over and carefully confided that Wood River was the home of the king of the silvertips - a famous stock-killing grizzly bear. I remembered the rock rabbit hunt, but still, after the others had gone to bed, I carefully tucked the little 25-35 under the edge of the tarp - just in case. In the early morning I went out to round up the horses. Less than 200 feet above our camp, and in the moist sand along the stream, were fresh bear tracks - lots of them. The largest bear tracks I have ever seen, even in later years, in any of the forests or in Yellowstone Park. I took special occasion and delight in pointing these out to Mr. Woods. The following night we camped in an aspen-fringed park somewhere beyond the head of Wood River. I was up the next morning before the others. Beyond the little valley, on the edge of an escarpment, I saw a red fox playing about. I fired several shots. The fox was not hit, but the picketed horses broke loose and took to the hills. Heads popped out of tents or from under tarps. "Swim, put that damn gun up and go out and round up the horses!"

We reached the Washakie Needles, camped, and started the survey. The second evening on returning we took a short cut to camp. I did not even know in which direction the camp was located. We were on the summit where the mountain broke sharply in cliffs and crags. Woods suggested that he and I take another short cut down the face of the cliff - a foolish thing to do where one was entirely green at mountain travel. We went down about 300 feet and came to a sheer drop of about 12 feet to a pile of snow below. Woods looked over, tossed his hat and said, "See that hat; I am going after it." I said, "See that sky line; I am going back to the top." He called back that if he did not show up at camp to come back with some pack ropes. I climbed to the top, and by chance and luck met Ranger Sherwood, who at that moment happened to come along. I did not have the slightest idea where our camp was located. Had it not been for meeting Sherwood I would have been completely lost.

We surveyed and marked a total of 105 miles of Forest boundary. Stone monuments were used. These were set as far as possible in sight of each other. The survey ended, the little party returned to Wapiti and was disbanded. Ranger Woods was transferred to the Teton Forest, with headquarters at Jackson, as Assistant Forest Supervisor. I did not again meet him for over 30 years. Ranger Harry W. Thurston was promoted to fill the place left vacant by the transfer of Mr. Woods.

I was assigned to odd and miscellaneous jobs along the North Fork through the summer. I did trail construction work, and some patrol work along the new North Fork road, the main east entrance to the Yellowstone Park. My job was to keep campgrounds clean, post warning notices, etc. One evening as I was returning down the road I met an elderly man and woman in a covered wagon pulled by one horse and a mule. The man was smoking a corncob and the woman was chewing tobacco. She asked, "Be you the Forest ranger?" I replied that I was. Swish went a big gob of tobacco juice that just missed the toe of my new boots. "How far is it to that hill in the park that pops off every seven minutes?" I told her that she probably meant Old Faithful, which is about 60 miles away. "Thank you," swish, and away they went.

I maintained headquarters camp at Wapiti, using my little 7x7 wall tent for sleeping quarters, and for storage of my few personal belongings and provisions. I cooked over a campfire outside.

Supervisor Pearce remained pretty close to the office, but did make occasional trips to Cody. Mr. Pearce's salary at that time was \$125 a month, or \$1500 per year. He considered that he should be getting a larger salary, and in the late summer of 1904 wrote to the Washington office that unless his salary was increased he might resign. In the following return mail from Washington he was advised that his resignation (which had not been made) was accepted effective at the end of the month. During the summer several parties had been staged at Wapiti. One occasion three ladies came up from Cody - one the wife of the cashier of the local bank, one the daughter of the railroad station agent, and the third the wife of the storekeeper at Marquette. I was not a member of the little party, not having been invited. After I had prepared supper I saddled a pony and rode up the river several miles to the camp of some friends, returning about eleven o'clock. I unsaddled and went to bed in my tent, located in the edge of the timber, and only about 200 feet from Mr. Pearce's home. The party evidently was just getting nicely under way. I unintentionally could overhear most of what was going on, but was soon asleep. About two o'clock I awakened. The party was still on. One lady remarked. "Unless so and so I will go out and sleep in Mr. Swim's tent." She did not make good her threat. The following morning as I was working about the place one came out and apologized for her conduct of the night before. I told her not to apologize to me; that I was not a member of the party.

Mr. Pearce's tenure of office was terminated. Harry W. Thurston was appointed in his place. The office was returned to Cody. I moved to the cabin previously occupied by Mr. Thurston. He had a few months before he married Josephine Goodman, a niece of Colonel Cody.

I entered the Forest Service in the spring of 1904 without taking the Civil Service examination. The Service at that time was under the Department of the Interior and no entrance examination was required.

This Service was shortly thereafter transferred to the Department of Agriculture, the name was changed from Forest Reserves to National Forests, and Civil Service examinations were required by all who entered the Service. Eligibility lists were established based on such examinations. The first examination for the position of Forest ranger was held at Cody during the late fall of 1904. I was requested by the Supervisor to accompany Ranger Sherwood to the Carter Mountains to survey and estimate a 10-acre tract of representative timber to be used in connection with this proposed ranger's examination. We marked the boundary of these ten acres and calipered every tree. I never did learn whether or not, this tract of timber was used as part of the test, but probably not as it was located 20 miles from Cody.

During the late summer of 1904 two Englishmen from Sheridan, Wyoming, Messrs. Wallop and Moncrief, applied for the purchase of a large body of timber on the upper North Fork of the Shoshone River just below the mouth of Middle Fork, a couple or three miles below the park line. Mr. Oliver W. Wallop was of titled rank and was later awarded full earlship from his native land. Lumberman Eugene Bruce from Washington was assigned to the Shoshone to complete details of the sale. A considerable body of timber was finally advertised and Wallop and Moncrief were the successful bidders. A stumpage rate of \$5.05 was the bid made by these men. I have always felt that Mr. Bruce took rather undue advantage of the situation and suggested a price entirely out of line for stumpage in that remote locality. Several million feet were involved. These proposed purchasers were very anxious to become the successful bidders. They asked Mr.

Bruce if there was probability that competition in bidding would be met with. They were assured, that competition could be expected. Undoubtedly no other bidders were in the field. Mr. Bruce suggested that a bid, of \$.5 per thousand might be expected, but that if a bid of \$5.05 was made that such would be pretty sure to be the winning bid. The timber was advertised and the bid of \$5.05 per M was made by Wallop and Moncrief, which was the only bid made. It is very probable that none others were seriously expected. This timber in its remote locality was not at any time worth more than \$2.50 per thousand.

The sale was completed and the operators were known as the Shoshone Lumber Companies. The lumber camp was established about a mile below the mouth of Middle Creek and along the narrow river valley. The Pahaska Teepee, Colonel Cody's new log hotel, was also about a mile above this camp.

The camp was organized and cutting started in the late fall or early winter of 1904. Ranger Sherwood, a little French Canadian, formerly from the lumbering woods of the Lake States region, was assigned as ranger in charge of the sale for the Government, I was designated as his assistant. We moved our outfit to the lumber camp and established headquarters in a tent. Ranger Sherwood gave me training in marking timber, scaling and general management of the sale. We worked through the fall and winter months, until the camp was closed down in early spring because of depth of snow. Compact snow in this locality averaged from 48 to 60 inches.

The following spring when the snow began to melt during early May, and the river began to rise, Mr. Sherwood resigned from the Forest Service and was employed by the lumber company to take charge of the river drive, he having had extensive experience in river driving in Minnesota and Michigan. This first drive was a serious failure. The plan was to drive these logs down the river for a distance of about 50 miles. The river had never been driven. This, combined with the swift water, made driving a difficult and hazardous undertaking. The cost was high. Five river drivers were drowned at one bad log jam center. An attempt was made to hold the logs in a boom, badly constructed, a few miles above the Shoshone canyon. This boom failed under the tremendous pressure. The entire storage of logs broke away and were scattered for more than 60 miles along the river below the boom, most of which were never reclaimed.

After the spring drive cutting was not again resumed until late in the fall. Mr. Sherwood was removed by the company. He did not return to Forest Service work. I lost contact with him entirely.

I was designated as ranger in charge of the sale area and continued as such until practically the close of the operations in the spring of 1907. The camp and woods foreman during the fall and winter of 1905 was obtained from Minnesota, and was entirely inexperienced in western conditions, particularly in logging from mountainous areas. He proved to be another failure, being unable to adapt himself to conditions found present at this camp. I doubted very much if he was even competent to successfully operate a logging camp, even a small one, in the Minnesota woods. Harry Nason, a typical western lumberjack, was the next foreman assigned to take over running of the logging operations. Mr. Nason was a competent logging foreman, and evidently had broad lumbering and woods experience in the mountainous areas of the Northwest, also an ardent lover of both good and bad whiskey. Mr. Nason could estimate the number of board feet

in a given tract of timber, by rule of thumb, with remarkable accuracy. As a man at camp he was friendly, but fearless and hardboiled. One day I met him coming down the mountainside, taking long strides, and headed for camp. He said, "Swim, come on back to camp; they are going to throw the cook into the river, and I am going to take a hand in the fracas." At camp everything was quiet.

Mr. Nason could not leave whiskey alone. Conditions at camp continued from bad to worse as far as drunkenness was concerned. On each return of the tote team from Cody, the lumberjacks would go on a drunken spree, and the woods would ring until a late hour with their carousal. This excessive drinking at camp led to Mr. Nason's removal. Gambling also was carried on to a very damaging extent as far as the men were concerned.

Big "Boney" Davis, known throughout Montana as the King of the Lumberjacks, was the next foreman to take over running of the camp. "Boney" Davis had slashed timber from public domain throughout the timbered areas of the State, tens of millions of feet, with a free hand and without cutting restrictions. He was hardboiled, and was thoroughly disliked by the lumberjacks. On one occasion one irate jack threw a peavy at him. "Boney" was a large, slow-moving man. He was sitting on a log but managed to jump to one side. The peavy stuck in the log where he was sitting. Davis refused to comply with terms of the logging agreement, or regulations in any respect. He cut timber exactly as he had done for many years previously from public domain.

This was a source of great concern to me. I tried everything possible to get some semblance of compliance. One day I asked him to come to my cabin. I read the logging agreement completely to him, since he could not read. When I had finished reading, "Boney" said he didn't give a damn what the contract said; that he would cut the timber exactly as he saw fit. A few days later I met him in the woods and pointed out to him his disregard for cutting regulations, high stumps, unnecessary slashing, brush unplied, cutting of unmarked trees, and leaving other trees that were marked, etc. He said, "Don't bother me anymore; I will cut as I see fit." I said, "Davis, I am through talking to you relative to compliance; either cut according to regulations, or I will report you to the Forest Supervisor's office." He said, "Report and be damned. I will be lumbering here after you are fired and are looking for a job." I returned to camp, saddled my pony, and rode 60 miles to Cody and presented the matter before the Supervisor. A few days later Inspector Paul G. Redington arrived at camp from Missoula. He took each item of complaint and made a thorough inspection. "Boney" Davis was promptly removed as lumbering foreman.

Sherman D. Canfield, also from Sheridan, was employed by Wallop and Moncrief as camp superintendent. Mr. Canfield shared the cabin that I used as an office, I was still working for \$60 per month. I felt that after nearly two years in the Service I was entitled, at least, to a small raise in salary. Since there was no indication that a raise would be forthcoming in the future I wrote my resignation. Mr. Canfield had just returned from Cody, I always addressed his as "Colonel." He addressed me as "Corporal." I said, "Colonel, do you wish to read a masterpiece in English," and handed him my resignation written to the Forest Supervisor. He read it, smoked a cigarette, reread it, and walked over to the stove and dropped it in. "That is what I think of your masterpiece." He advised, "Continue for the present." The following day he returned to Cody, and shortly thereafter I received a promotion as deputy Forest ranger at \$75 per month. At the end of my first year in the Service, although I was not a spendthrift in any sense of the word, I

did not have a dime. All I had was my little job and what equipment I had on hand. Mr. Canfield told me later that, had I resigned he would have given me work with his company.

George H. Cecil, a young Forest assistant, was assigned to the Shoshone Forest. Although not connected with the sale in any way, he headquartered at the camp, and he and I bunked together for over 18 months. I met many Washington inspectors and other officers. These men would visit the sale area and continue on through the Yellowstone Park. My little cabin at the camp was constructed Wyoming style; that is, with dirt roof. Dirt roofs are all right, in the arid districts, but are out of place in the mountains. The cabin leaked like a sieve after each rain. I tried on many occasions to get additional roofing material but none was supplied. Inspector Franklin W. Reed from Washington visited the sale area, remaining several days. The cabin had a double bunk extending along the rear end. Reed occupied one of these. During his visit a heavy rainstorm set in. His bed became so thoroughly soaked that he spent most of the nights sitting by the stove. Inspector Reed returned to the Supervisor's office and a few days later I received new roof material for the cabin.

All early-day Forest officers remember the Forest Homestead Act of June 11, 1906. Immediately following the passage of this act by Congress, thousands of applications were filed by occupants of agricultural tracts within boundaries of the Forests for homesteading. Meeting this new job was a big undertaking that the Forest Service had to face. Men had to be trained for examiners. During the late fall of 1906 Inspector Paul G. Redington again visited the Shoshone, this time to train June 11 examiners. I was selected to do this new job. Ranger Charles Poole replaced me at the lumber camp.

As soon as working conditions were favorable in the field during early 1907, I organized a party to make June 11 surveys on the Shoshone, consisting of Jack Rollinson, Shepherd, Hiscox, Chester N. Whitney and myself. Whitney was the Forest assistant. The other two were rangers. For our first trip we had thirty-two applications, mostly in the Sunlight Basin and along the upper Clarks Fork River below Cooke City in Wyoming. We each had our saddle horse, but equipment, bedding, grub, etc., was loaded and lashed on the front dead X of a lumber wagon on which a box had been placed. Now, each different kind of transportation has a particular name, such as railroad train, lumber wagon, automobile, pack horse, etc., but in this case our means of transportation was called a "jolt-ass" - very appropriately. We started survey in Sunlight Basin. At "Windy" Davis' homestead we stopped at his cabin. We had sourdough hotcakes from a jar solidly caked with sour dough to a depth of at least an inch around the inside of the jar, and coffee from a coffee pot half filled with old grounds. We surveyed the John R. Painter ranch. He mixed for us his famous "traveler's cocktail." On the Al Beam ranch they were going to take Whitney out for a snipe hunt. I slipped a word to him just before the hunt was to start. In Sunlight Basin mosquitoes were in swarms. On the Clarks Fork, near the Montana line, we surveyed old man Smith's ranch. Smith had asthma and sinus. He would lie in bed at night and spit up against the wall. This had continued for so long that the wall was coated for two feet square. A few years after his tract was surveyed Smith was shot and killed with a shotgun by one of his employees. His body was left in the brush along the river.

We examined all of the land covered by homestead applications along the Clarks Fork and in Sunlight Basin, and returned to Cody. As we crossed the Clarks Fork, the day being warm, we

stopped to go swimming in the stream. All began rapidly undressing excepting Mr. Whitney. He made no move to join in the swim. There was a large rock in the middle of the stream. We told him that if he did not make a move to undress by the time we were undressed that we would set him on the big rock in the river. Just as we were fully undressed he dashed for his horse, we for ours. The race continued up the road for more than a mile, until we had crossed over the brow of a hill and were in clear view of a ranch. We were entirely naked; Whitney got away.

During the early spring of 1908 I was again given a small raise in salary, and a promotion. This time I was transferred to the Missoula office to continue June 11 from the District Office. The city band did not escort me to the train when I left; however, Harry Thurston invited us all to the office, to be present about nine o'clock. When Thurston came in he carried a gunny sack that clanked like heavy glassware when he set the sack down. It was. Several speeches were made. About one o'clock I helped Whitney to our room. He and I roomed together about four blocks from the office. He went to bed. I told him I would join him in a few minutes. When I came up he was across the bed asleep. I wakened him. He said, "Swim, is that you, y-you old r-reprobate; what are you coming to bed at this hour of the night for?"

I left Cody for Missoula. Early spring floods had washed out the tracks between Butte and Missoula. Trains were routed south from Butte via Pocatello. I arrived at Pocatello in the afternoon. A long wait was necessary. I went to a hotel and to bed, as I was about tired out. When I awakened the sun was still about twenty minutes high. I thought I had overslept and wired the Missoula office, dating the telegram the following day.

At Missoula my first assignment was a homestead to be surveyed on the East Fork of the Bitterroot - Johnson's ranch. It seemed that Mr. Johnson had a bad reputation. He was an oldtimer, and had caused more or less trouble. I did not know this District Forester E. A. Sherman said, with a twinkle in his eye, "Swim, we will bid you goodbye; you may not return." En route up the Bitterroot, I was asked on several occasions where I was headed for. I would reply, "Johnson's ranch on the East Fork." In each case some guarded remark was made. I stopped at the ranger station near Sula to get Ranger Glogoly to help me in the work. We rode to the Johnson ranch. Mr. Johnson was home and invited us in. The place had been occupied for many years. His house was never locked. There were many articles of value lying around; among them, as I recall, were several quite large gold nuggets. We surveyed 160 acres, with lines established highly to his satisfaction. Everything was lovely.

I was assigned to the Helena Forest and spent the remainder of the working season examining June 11th applications there. The work on the Helena was difficult since there were many border-line applications covering poor scabby land, and many tracts including questionable mining claims. Dwight Bushnell was Forest Supervisor, and Wellman Holbrook his assistant.

I returned to Missoula in the late fall. The following winter was spent in the office there.

During the spring of 1909 I confided to R. Y. Stuart, Assistant Chief in Operation, that I intended to get married in the early summer, and requested a transfer to some Forest where less traveling around would be required, and where I could establish a home. I was again given a little promotion, and transferred to the Kaniksu as Forest ranger, with headquarters in Newport,

Washington. Willis N. (Pud) Millar was Supervisor. I found him to be a highly competent administrative officer. I was assigned to a small ranger district adjacent to Newport, and worked mostly in the Supervisor's office and assignments out from this office.

Supervisor Millar organized his office somewhat following the general plan of the District Office at Missoula. I was assigned in his organization as "Chief of Lands." The lands work on the Kaniksu at that time proved a big and complicated job. All records were in bad shape. The entire Forest, setup was just emerging from the primitive to a well-planned organization. The Kaniksu at that time undoubtedly presented the biggest lands problem of any Forest within the entire Missoula District due to the many tracts that had been occupied for their timber values. The Kaniksu was also a very bad fire Forest. Mr. Millar proved equal to the occasion and built from chaos an excellent and efficient organization, one of the largest individual Forest organizations in District One. He was faced with a difficult task. A number of the old-line rangers had, in the past, run affairs as they pleased. Several of the newcomers failed to fully cooperate with him. He overrode all opposition, including opposition from the District Office. Mr. Millar was undoubtedly the strongest and most efficient Forest Supervisor I contacted at any time in the Service.

During June of 1909 I returned to my old home locality in Nebraska and was married to Miss Grace A. Doyle, an old schoolmate. She had for the past several years been teaching school in the neighborhood, and in the small town of Genoa. After the wedding we packed our few belongings and returned to Newport, where a small home was waiting. The new bride was brave and very soon adjusted herself to the new and strange conditions, and to being a Forest officer's wife. Soon after our arrival several fires were started by lightning west of Priest Lake, near the head of Granite Creek. I was sent by Mr. Millar to take charge of the two fires on Granite Creek. Other fires were burning farther to the northward. Our crew was small thirty or forty men and equipment was shamefully inadequate. The two fires covered about 1,000 acres and soon burned together. We called for more men and more equipment - all we could get. Additional men did arrive. One evening an additional number arrived headed by a likely looking lumberjack who at first sight I figured would make good foreman material, Our tentage and fly material was very limited. I distributed the newcomers to best advantage, pointing out where the big lumberjack could place his bed roll. He asked about the progress of work on the fire and other pertinent questions. He finally said, "Don't you know me? I am R. H. Rutledge." He had grown a large black moustache since I last had seen him.

The fateful and catastrophic year of 1910 arrived. The Forest organization had been enlarged by many young men, mostly from college. Among these were Meyer H. Wolff and John B. Somers. Somers was a Forest ranger and Meyer Wolff was a Forest agent recently from the Gallatin Forest. Mr. Wolff was of Russian descent and was yet to become naturalized, hence his title Forest agent. Mr. Wolff became naturalized the following year. I was present at the hearing in Spokane as a witness. He married our very competent office clerk, Miss Merle Jackson. I was present at a presentation at their little house boat on the lake a few days after the wedding, at Coolin, Idaho, and twenty-five years later had the honor and pleasure of attending their silver wedding at Missoula. My contact with Mr. Wolff was probably more far-reaching than with any other Forest officer I had met during my long term of service.

The late summer of 1910 approached with ominous, sinister and threatening portents. Dire catastrophe seemed to permeate the very atmosphere. Throughout the first weeks of August the sun arose a coppery red ball and passed overhead red and threatening as if announcing an impending disaster. This fiery red sun continued day after day. The air felt close, oppressive and explosive. Drift smoke clouded the sky day after day. District Forester W. Bo Greeley, en route to Missoula over the Great Northern, wired from the train to be met at the depot. His first was, "Where are the fires?" He was very much surprised when told that there were no fires of serious proportions on the Kaniksu and that most of the smoke in the air was reported to be drift smoke from Canada. Shortly thereafter fires began springing up seemingly from no cause. The town of Newport and locality had been cleaned of men and fire fighting tools. About August 18 or 19 so many fires appeared along and within sight of the railroad that trainmen in alarm reported the condition to the depot agent at Newport. The agent, sensing that a conflagration was inevitable, called a hasty meeting of townspeople at his office. Mr. Millar was absent in the field. I attended the meeting. The critical situation was discussed and the nucleus of an organization started. Later during the same day the mayor called a hasty meeting to further discuss best means to protect the town and adjacent property. It now seemed inevitable that the numerous fires burning within and outside of the Forest boundary could no longer be controlled, especially in the event of a high wind. Groups of citizens were organized, and arrangements made with what little there was to work with to keep the fire as far from the town as possible. Every available tool was placed in service, even garden hoes, rakes and pitchforks. August 20 arrived more ominous and threatening than the days preceding. Reports of so many fires came in that it was impossible, with means at hand to even begin to cope with the situation. The wind began to increase in velocity from the west. Small fires were fanned into large ones. The air was rapidly becoming filled with smoke more dense than previously. From the window of the office we could see for several miles along the timbered bench lands northeasterly from the river. These yellow pine slopes were occupied by several ranchers. We could see fires break out from these ranch locations and sweep up the slope beyond. It was clearly evident from location of these new fires that the ranchers were starting what they thought to be back fires as protection to their own property. There is not anything more dangerous than a back fire started by hands of the inexperienced. These fires spread with great rapidity, Finally the expected hurricane broke in all its fury. Local fires burned together and swept through the forest as one vast conflagration. The flames swept across the Pend Oreille River as if it had not been there. The mid-afternoon became dark. The roar of the flames and crash of falling timber could plainly be heard in town. Newport was entirely spared. The flames cut a straight swath to the northward.

The hurricane passed, leaving death and destruction in its wake. Telephone lines were down and only fragmentary reports were received. No deaths were reported among the Forest personnel or fire fighters on the Kaniksu. On the following morning I saddled and rode north through the smoldering burn to the summit of the Priest River divide. Only blackened waste could be seen. I returned and started down the river on the west side. The burned area was a tangled mass. The road was completely blocked. I was forced to turn back. All that remained was to salvage what material that could be salvaged from the disaster and reorganize for a new start.

Lands work on the Kaniksu still fell largely to me. The year 1911 saw practically the end of June 11th work that had taken so many thousands of man-hour time of Forest officials, particularly at

a time when every effort was needed in reconstruction work, for this truly was the real formative period of the Forest Service.

Out of isolated individual homestead-tract surveys grew the problem of land classification, both intensive and extensive. The first project designated for intensive survey, that is, the Priest River project, where blocks of Forest land contained unoccupied and undeveloped agricultural land intermingled therewith that may at some future time, as well as the present, be considered as chiefly valuable for agriculture. I was assigned to this new job as officer in charge. The Priest River project was located along Priest River 12 or 15 miles below Coolin, Idaho, and contained several townships of level to gently rolling fertile land, although for the most part timbered. Some of these level acres were covered with lodgepole pine, while other tracts were covered with excellent stands of young and thrifty white pine. The soil as to depth, texture, types, etc., was classified by a soil expert from the Bureau of Soils, who was a member of the party and worked in cooperation with the Forest Service. His reports became a part of the official report covering the project.

The following year, 1913, I was again transferred to the District Office at Missoula and placed in charge of land classification, both extensive and intensive, for the entire District. My title was changed to the unofficial title of National Forest Examiner. Intensive classification projects were scattered from the Kaniksu to the Custer National Forest. This project classification lasted over a period of several years. Finally the big job of extensive classification was gotten under way. Each Forest made a large bulky report on atlas-sized paper, that is, 18 x 22 inches, covering the entire Forest, and dividing the total land acreage into two general classes - land entirely nonagricultural, and land agricultural or possibly agricultural in character. Such latter tracts were to be covered by intensive survey which would be the conclusive classification. My job was that of organization, coordination and final preparation of reports. This forest classification proved to be a big job, requiring seven years for completion.

During the time above mentioned my wife and young son and I lived in Missoula. I, like all other Forest officers, was subject to fire call and fire duty during the fire-danger period of the summer months. I was assigned to many fires with crews ranging from 30 to about 100 men. The assignment to fire duty was one of the trials and terrors of a forester's life. Most forest work was a pleasure, but fire fighting was a nightmare. On at least four-fifths of these fire fighting assignments I was successful; that is, the fire was placed under control and extinguished. On others I failed, and the fire spread beyond control. On one assignment I was sent deep into the Selway Forest to report to a ranger that I was to meet at 62 cabin, and to replace him, as he was being assigned to the Supervisors office to help out in the heavy duties there. I arrived at 62 cabin late in the afternoon. The ranger had just arrived from the fire which was five miles away. His first remarks were, "Well, Swim, you will have a snap this time; the fire is under complete control, nothing to do but to patrol the fire until it is safe to leave." I thought what a break. We remained at the cabin overnight, and slept in the following morning, as we were both tired. After breakfast we both left, he for Kooskia and me over rough mountain trails for the fire that was under control. I finally arrived. All did not look well. For some distance back I had noted fresh smoke rising far to the north. The burned area covered about 4,000 acres. On arrival I found the entire crew working along a damp cedar swale, close to camp. I asked the foreman what the big smoke was at the northside of the fire. He replied, "Just some brush burning out inside the line."

I asked him to select about 30 good men and to bring them along; we would investigate. On arrival we found a serious condition. The fire, burning free, was just gathering headway for a crown fire, and a complete breakaway. The remainder of the crew was hastily sent for, and only after a hard fight that lasted well into the night was this sector finally controlled. As soon as the fire was safe to leave I continued inspection of the north and northwest end of the burn. I was unable to find any indication that this sector of the fire had ever been trenched. Had the fire not been checked at that particular time a serious breakaway would have occurred.

One morning at this camp one of the men stepped on a partially rotten cedar log. The moist bark slipped and he fell in a twist with his back against the log. He was unable to rise and was carried to his bed. He was given care, and his meals carried to his bed. He seemingly became worse. It became evident that he must be taken out to a doctor or that he might die in camp. He finally refused to eat. A stretcher was made and six men assigned to the difficult task of carrying him out over the rough, mountain trail. The little party reached the Selway River and built a cedar raft, and the journey continued by water. A doctor from Kooskia met the party at the Bungalow Ranger Station. The sick man was carried ashore and the doctor began his examination. He finally gave the man a poke in the ribs and said, "Get up you blank-blank, there isn't, anything the matter with you."

During March of 1921 I was transferred to the Lewis & Clark National Forest, with headquarters at Great Falls. My wife remained in Missoula until she was able to dispose of our little home purchased the year previous in an adjacent district known as Orchard Homes. She made disposal of the place and joined me in Great Falls. I was assigned to administrative work in the Supervisor's office, mostly in the line of training, since this phase of forestry work had been badly neglected due to my long assignment in the more specialized lands work. W. B. Willey was Supervisor. No lands work was done by me during this assignment, excepting checking reports prepared by others.

During February of 1922 I was transferred to the Gallatin National Forest with headquarters at Bozeman, Montana. Here I remained for many years as assistant to the Supervisor, but without the title or the salary of an Assistant Forest Supervisor. I had charge of all the lands work on the Forest, and also timber sales. Burr Clark was the Supervisor. Special uses, particularly for summer homes, were one of the problems at that time on the Gallatin. Recreational work in all its phases was just getting under way in earnest. This rather new phase of forestry work was largely undeveloped on the Gallatin Forest, and required a lot of planning and attention. The great difficulty to proper development was lack of funds. Appropriations for this, as well as most other activities, were shamefully small, but even with this handicap the Gallatin finally became a fairly well developed Forest.

During the spring of 1933 the first CCC camp was organized on the Gallatin. Most of the organization work, selection of camp site, etc., fell to me. This first CCC camp was located about six miles westerly from West Yellowstone and a couple of miles south of Hebgen Lake. Eric White, one of the Gallatin rangers, was assigned as superintendent of the camp. This assignment was made by the Regional Office. The organization set-up of this new phase of work was a dual proposition. The camp management and supervision of enrollees while off duty was in the hands

of the U. S. Army. All work projects, work equipment, etc., were in charge of Forest officials and Forest appointees.

In the case of this first CCC camp on the Gallatin the Army personnel were all regular Army men, and from New York. One incident occurred in connection with this camp. The Army captain, camp commander, had many questionable characteristics, morally and otherwise. His conduct in West Yellowstone, and of the boys under his charge, while on recreational trips there, was very much resented by the townspeople. One night while on one of these trips or visits to the town, both the captain and the boys were ordered out. A staged battle was practically declared, the captain and boys on the one hand, and the townspeople, headed by the night marshal, on the other. The captain and the boys were ordered to halt. The night marshal stood ready with drawn gun. Had the captain continued he would have been instantly killed.

My work on the Gallatin continued as it had started in the early spring of 1922. I was still Acting Assistant Forest Supervisor, doing miscellaneous work throughout the Forest and my share of desk work in the office. My salary had been inched up to \$2600, but none of the raises carried a promotion.

I prepared a recreational land-use plan along the Cooke City highway in the Beartooth Mountains, on the Custer Forest, and later a continuance of the same work for the Absaroka where the new road crossed that Forest.

More and more attention and planning were being given to recreational development by the Forest Service. The pendulum had again swung far to the left. I had noticed for many years these pendulum swings of the Forest Service. When some new activity containing worth-while and progressive measures beneficial to the people as a whole was worked out, the project would usually be put into effect with such rapidity and enthusiasm that the swing could not be or was not checked on a well-balanced center, but would swing to the extreme with a resultant overbalance that usually would require corrective measures. In most every case these corrective measures would result in a later slackening of the project work, loss of interest and a marked setback to the Service. This condition had happened many times during my connection with the Service. I usually was in both the inrush and the outwash.

During the summer of 1935 I was again transferred to the Regional Office. This time in connection with recreational development and land-use planning. Upon arrival I found, or felt, that there was something missing, something lacking from the District Office of days gone by. The old days of friendships were seemingly gone. I was almost a stranger. The oldtimers, once the bulwark of the Service, had slowed down, and seemingly were waiting, just waiting, for old age and retirement. They had given all they had to a great Service. On this last detail to the Regional Office my assignment was principally campground planning and development work. My salary had been increased to \$2900.

I was transferred back to the Gallatin National Forest during the summer of 1937 with title of Assistant Forest Supervisor, and with a salary increase to \$3200. The old horse had been returned to his favorite pasture to pass his remaining active days in Forest Service work.

I was retired at the age of sixty-two July 31, 1939. I had been employed continuously for over thirty-four years, and, missed only two days without pay during this entire period of service. This loss of time was unnecessary. I had never had serious sickness nor hospitalization during this time. After retirement I spent the first four years at our home in Bozeman, shoveling snow during the long winter months, and working in the lawn and garden and playing golf during the summers. On October 4 of the fall of 1943 my wife and I left via auto for the Pacific Coast, spending the winter months at Santa Ana, California, where we are at present as these few memoirs are written.

J. N. TEMPLER
Forest Supervisor
Deerlodge
(Transferred to W. O. 1944)

Butte, Montana
January 11, 1944

Regional Forest
Missoula, Montana

Dear Sir:

Looking back over some thirty years as a public servant, few incidents come to mind which were more or less spectacular or what might be termed "heroic." To my mind, the most interesting are the two events which I am submitting in response to your letter of December 29, 1943. Here they are.

Human beings are said to have certain characteristics in common with those of animals. For instance, some men are brave like the lion, some timid like the rabbit, and some porcine like the hog. And they say "Water finds its own level." Applied to the following, it looks bad for two one-time Custer rangers.

Early in May 1922, Ranger O. E. York and I left Camp Crook, South Dakota, driving a 1918 Army vintage light aviation truck and a White heavy-duty Army truck loaded with my household equipment, en route to the Whitetail Ranger Station. Mrs. Templer, with our small child and a companion, led the convoy in a Model-T jalopy.

We were headed for Stacy, Montana, and had planned to turn northwest from Ekalaka, taking the Mizpah cutoff to Miles City.

We arrived at Bell Tower on Box Elder Creek thirty miles from Camp Crook around 6:00 P.M. in the dark and in one of the worst rain and sleet storms of the season.

The gumbo flat around Bell Tower (combined post office-ranch house and a one-room school) was covered with eight inches of water, with more falling. York and I waded it from the road to the ranch house (carrying the two women and child), where I had, after some dickering, obtained accommodations for them. None were available for York and me. The rain, sleet and lightning continued.

Soaking wet as we were, York and I decided to find shelter of some sort, if possible, in a shed. After blundering around in the dark we finally bedded down in the best we could find. We shivered through the night with a continuous cold rain and sharp lightning, one bolt of which killed a calf a few yards from us.

At last, as the eastern horizon was becoming visible and as we tried to open one reluctant eye, we surveyed our environment.

The flat surrounding the ranch building was still covered by water, our loads were saturated, and we had only the wet clothes in which we had spent the night. But the all-time low hit us squarely in the face when it finally dawned on us that we had spent the night in a hog pen.

P.S. York doesn't tell this story, but he will verify it if pressed.

The following incident, will, I believe, put some men to shame, It follows.

I have marvelled at the grace of the antelope and the beauty of a doe with her fawn, laughed at bears running up the mountain side, killed, with hate, many rattlesnakes and other vermin, and fearfully given bull moose the right of way. But the most impressive wild-life event I ever saw occurred during the early summer of 1932.

I was riding up Magpie Gulch in the Big Belts in a pick-up with Ranger Martineau when we saw a male pheasant strutting about in the middle of the road about a hundred feet ahead of us. Martineau blew the horn and we both yelled to scare him out of the way. But with his feathers ruffled and a gleam in his eye, he would have none of it and continued his warlike patrol back and forth across the road with defiance visible in every move.

When the car was practically on top of him, and as I got out to chase him away, I spied a hen pheasant with her brood of downy chicks slipping away into the brush. When she was apparently safe from harm Mr. Pheasant condescended to let us pass.

There is a lesson there, and call me a liar if you like, but that's my story and I'll stick to it.

Very sincerely yours,

/s/ J. N. TEMPLER
Forest Supervisor

THE GOOD MEN DO LIVES AFTER THEM

Ever since I have been in charge of the Whitetail Ranger District I have wondered why I have not had more trouble with Indians from the adjacent Cheyenne Reservation, as with the deer, grouse, antelope, and sloc elk becoming so abundant that area must offer wonderful possibilities to our red friends. However, after diligent efforts I have found out just why the "Gut Eaters" (as they are poetically termed by the local residents) give Districts 1 and 2 north such a wideberth. Following is the explanation.

While Glen Smith was in charge of the Custer, with headquarters at Ashland, he kept having a good deal of trouble with the Cheyennes poaching and molesting the permitted stock when they rounded up the I.D. cattle that had strayed over from their reservation. One fall Glen beat them to it, and on the general roundup he saw to it that all the I.D. cattle were gathered and thrown over

on the reservation. One day after the roundup Glen was in his office when he noticed a string of twelve or fifteen wagons with the attendant caviya passing through Ashland. Smelling a mouse, or rather several mice, Glen halted the cavalcade and asked Redbird, the Indian in charge, where they were headed for. He was told the outfit was going up on the Forest Reserve to gather the I.D. cattle. Glen replied that he had gathered all the I.D. cattle and that they had been thrown over on the reservation. However, the Indians insisted that not all of their cattle had been gathered and that they were going to do that little job with precision and dispatch. Thereupon Glen acquiesced, but told them that he was going to search their wagons for guns, which he did, going from wagon to wagon without result until he came to the last wagon. There he found a small arsenal and, with his choler rapidly rising and his suspicions confirmed, Glen forcibly informed the noble redskins that they could not go on the Forest unless they left their guns at his office.

This brought things to a head and the Indians, refusing to leave their guns with Smith or change their intentions, started down the road towards the East Fork of Otter Creek, where they were to turn east to go on the Forest. Glen straightway mounted his horse, and with a 30-30 started to head off the Indians (he having been delayed a bit in going after said horse). He circled and met the outfit about two miles out of Ashland, and upon stopping them he again told them they could not go on the Forest with their firearms. Apparently this did not deter them in their intent to continue on their way, and Glen, seeing that force would probably be necessary, then and there declared himself. In language, whose forcefulness left little to be desired, Glen told them that the only way they could go on would be over his dead body. This put an entirely different light on the matter, and after grunting and powwowing a while with much gesturing towards Glen's body, the bunch gave in and faced about. Local people say that years afterward the Indians let the cat out of the bag by saying that the way Glen handled his 30-30 did not deter them, but the thought of having to surmount Glen's body just to kill a few deer was a little too much.

J. N. Templer

**EARL V. WELTON, District Ranger
Helena National Forest
(Retired 1939)**

Deer Lodge, Montana
February 14, 1944

I received an appointment as forest guard on the old Helena National Forest effective October 1, 1907 and started work that day at the Dry Cottonwood Ranger Station under Ranger W. J. Derrick.

I did maintenance work around the station and scaled stulls that were hauled 12 miles by team and wagon from the woods to Warm Springs Station on the N. P. for delivery to the mines at Butte. I also did some patrol work, looking for trespassing stock and timber trespassers.

I was familiar with all the country for I had ridden the range here when I was a boy. I was also quite familiar with survey lines, as I had been employed for four seasons on a GLO survey.

Shortly after I went to work a large timber sale (large for this vicinity) was made at the Emery mine, some ten miles east of Deer Lodge. A new ranger district was to be created for the Deer Lodge vicinity, and I was to be placed in charge on May 1, 1905, so Mr. Derrick turned over to me the supervision of this timber sale of 3,000 cords of dead cordwood and some mining timbers. The site of the new district headquarters was at Burnt Hollow, and a contract had been let for constructing a four-room log house, a barn and a mile of fence. The supervision of that work also devolved upon me.

My mode of transportation was on horseback, and the round trip from the Dry Cottonwood Ranger Station usually took one week. I made the trip twice a month. During the alternate weeks I scaled stulls and drew maps and did other office work at the Dry Cottonwood Ranger Station.

When I first went to work I made a bargain with Mr. Derrick that I would get dinner and supper if he would get the breakfasts, so I could enjoy the rare privilege of staying in bed a little longer in the morning. During the past four years I had been getting up early, for I had cooked and packed for a GLO survey crew and had driven a team in the woods through the winter, and that sort of work means early rising. The work to which I was assigned took me away from the ranger station a great deal more than had been anticipated, and the result was that Mr. Derrick got to cook more than his share of the suppers.

I had been reared in the Deer Lodge Valley and was well acquainted with nearly everyone. Naturally, I had to explain the Forest Service regulations, especially those relating to timber and grazing. An old sheep man whom I had known all my life said to me one day, "Earl, if it wasn't for these Forest Reserves I'd show you some sheep raising." Up to that time, this man, to my own personal knowledge had for several years maintained a sheep camp, some time during the grazing season, in nearly every gulch from the "Hump," 12 miles north of Butte City, to Peterson Creek, a stream that flows into the Deerlodge River at Deer Lodge. He had been restricted by

permit for only one or two seasons at the most at that time, and still ran the same number of sheep.

Another man said to me, "You sure have a good job now, and I'm glad you have it." I said yes, it was a pretty fair job, something new, and better than ranch work. "Oh, but think of the graft there'll be in it," he said. I asked him how he figured that. "Well," he said, "that's easy. Take for instance a cattle and horse permit, I want to graze 100 head. All you have to do is to charge me for 50 and split the difference with me for the balance." In those days a charge of 27 cents a head was made for horses and cattle for a six-month period beginning April 15. I said to him, "If you pay for the full 100 head it would cost you \$27; for 50, \$13.50. Then split the \$13.50, and you make \$6.25 and I make \$6.25. And what can I tell the grazing inspector this fall when he sees all the stock on the Forest, grass all eaten off, and about one-half the amount of the grazing fee collected? No, I'll stay in the straight and narrow path."

The only bribe I was ever offered during my 31 years as a Forest officer was a \$5 tip for a free use permit. At that time a person could be issued a free permit, for green timber in the amount of \$20 at the prevailing stumpage rates. Regulation S-22 was not in the book then. At that time I sold several hundred cords of dead and down wood for fuel in Deer Lodge at 25 cents a cord. A few men worked during the winter and three or four usually made it a year-round business. Naturally these men were better adapted for getting out all kinds of material and took less supervision than the average farmer or stockman, so in many cases these "timber rats," as we called them, got out considerable free use material, both green and dead. However, the free use permittee had to sign the permit. One of these timber operators came to me to get permission to get out a set of green house logs for a certain farmer and to see when I could mark the trees for cutting. He had already talked with the farmer as to cost, etc., and he had previously been instructed with regard to high stumps, diameter limits, brush disposal, etc. It was then up to me to see the farmer and get his signature on the permit, and explain to him that he would be held responsible for the condition of the cutting area. I did this within a few days, and when he had signed the permit and I had explained everything to him he said, "I give you five dollars."

On one of my trips in the vicinity of the Emery Mine, located ten miles east of Deer Lodge, I stopped around the noon hour at the cabin of some miners I was well acquainted with, but did not find them home. They had taken their lunch with them to work. I spied an open box of apples and took a couple then rode on. That afternoon I came past the place where the men were working and accepted their invitation to stay all night with them. Some time after supper one of the men went to the apple box to get some apples to pass around and there wasn't an apple in the box. They had all been taken from the box sometime that afternoon. A hunt for the apples began at once, for we thought they must be somewhere in the house. There were two rooms in the cabin. The front room, used as a kitchen, was fully completed. The back room, which served as a bedroom, was not ceiled overhead, which left a space between the bottom of each rafter on the plate. We finally found the apples, all lined up, one beside the other, along the plates between the rafters. They had been placed there, one by one, by a single pack rat, between 1:30 and 5:00. Needless to say, we dispatched the rat.

I was out one time on land classification work with a couple of Forest officers. We were using my team and buckboard, camping wherever night overtook us. One night we stopped at an

abandoned set of cabins. We did not set up our tent, but made our beds in one of the old cabins. As soon as it got dark, pack rats began to roam through the cabin and over our beds. The two Forest officers got the creeps. They sat up and threw everything they could get their hands on at the rat, and got impatient with me because I didn't join in the melee. I told them I was all right as long as they kept up their fuss, which to my way of thinking was worse than the racket made by the rats.

On this same trip we had to pass an old prospector's abode. I told the men of some of the experiences I had had with him. When anyone came by his place he would want to ride as far as the York post office, then when he had gotten that far he always had business farther on, and so on, until he wound up at your own home. Well, these Forest officers thought it would be a good joke to take him along with us and of course he needed no urging to go for his mail. I managed to get the old fellow in the driver's seat with me, which left no place for the others to ride except hanging on top of our load. There was room for three in the seat, but neither of the men would ride beside him because of his untidy appearance. I didn't drive very carefully from then on, and, as a buckboard is a dead-ex vehicle, the ride on top of the load was none too pleasant. The old fellow was quite well read and full of talk, much of which was quite interesting. He had helped survey land in Alaska in the 60's.

I moved from the Dry Cottonwood Ranger Station to the Burnt Hollow Station on May 1, 1908. I kept close tab on the snowfall for May 1908, and at the Burnt Hollow Ranger Station I measured seventy-two inches. That was one of the wettest seasons I have ever known. Railroads and wagon roads were washed out, and the only sure means of travel was on horseback. Railroad traffic between Butte and Missoula was stranded for three weeks.

The last time I saw cattle used for skidding logs in the woods was during July 1908. A sawmill man by the name of Joe Larson had a small mill located on Cottonwood Creek east of Deer Lodge. He cut timber on both private and Forest lands, and used two yoke of oxen to do the skidding. It wasn't necessary to do nearly as much swamping in the woods as when skidding is done with horses.

In the spring of 1909 the company that had purchased the Emery Mine became insolvent and shut down, owing quite an amount of money here and there, and \$75 due the Forest Service for cordwood and mining timbers. There was some 350 cords of wood piled up at the mine worth considerably more than the value of the stumpage. I posted all the wood with U. S. Forest Service property notices, and waited for developments, keeping an eye on the wood to see that none moved away.

One morning some time later when conversing with some friends in Deer Lodge, a young attorney came up and said to me, "I see you have all that cordwood up at the Emery Mine posted with Government signs prohibiting us from selling it." I said, yes, that I had to post it to protect the Government, as the company owed \$75 for stumpage. He said that he, as representative of the creditors, was going to sell the wood on a certain date, and wanted to know what I was going to do about it. I told him I would have to see that nobody moved any of that wood until it was released by the Government, and that wouldn't be until the Government received what was due for stumpage. Of course by that time we had quite an audience, some siding with me and some

with the attorney. Finally he became quite sarcastic, and said he was going to sell the wood, and he didn't care what I did about it. About that time the sheriff came up and took in what was going on. I told the attorney that I didn't care how many times he sold the wood, nor who to, but I wouldn't let him nor anyone else move it until the Government stumpage was settled for. I also told him that he might be a lawyer, but that he had some things to learn when it came to doing business with the Government. A short time before the sheriff's sale the sheriff came to me and said, "How am I to dispose of that wood at the Emery? I know you understand how it should be done without friction." I told him it was a very simple matter, then gave him a letter of transmittal for the \$75 and told him to sell the wood subject to the Government's claim. A few days later I was passing the bank in Deer Lodge when Mr. Larrabie, the banker, motioned for me to come in. He showed me that the bill for wood and stulls at the Emery Mine had been paid.



Coram Ranger Station, Flathead National Forest. 1908



Ranger Bob Snyder and family at Graham Creek Ranger Station, Coeur d'Alene National Forest. About 1911.

R. L. WOESNER
(At present Chief Fire Warden
Potlatch Timber Protective Assn.)

May 2, 1941

U. S. FOREST SERVICE
1909 to 1920
By R. L. Woesner

Though not being what might be termed a real old timer in the Forest, Service, I was associated with some who were back as far as 1901 when I became acquainted with a few of the old time Rangers in the Flathead country. In those days the "Forest Reserves" as they were called, were administered by the Department of Interior. I recall when the old Lewis and Clark "Forest Reserve" took in all the territory now embraced in the Kootenai, Flathead, Lewis and Clark, and I believe part of the Cabinet National Forest and Glacier National Park. The area north of the Great Northern Railroad was called the North Division and that south of the Great Northern was known as the South Division.

This vast area was administered by a very few men. A ranger in those days usually had from a half million to a million acres of territory to cover, for which he received a salary of about \$60.00 per month for himself and the use of as many horses as was necessary for him to operate, which was usually not less than two, sometimes more. He also was required to furnish his own camp equipment, his own tools and build his own cabin if he had one.

Expense accounts were unknown in those days, and a Ranger usually carried subsistence supplies and camp outfit with him wherever he went. Most of the old time Rangers I knew were bachelors; however, I do recall having met a "squaw man" or two in the Forest Service. They were all good woodsmen and could, and did, usually, live under rather primitive conditions. They were usually very good judges of horse flesh, and could drive a sharp bargain in a horse trade.

Trails or roads were few and far between. What trails there were, were mostly just trapper blazes across country and the few roads existing then were barely passable by team and wagon. In case a ranger wanted a trail any place, it was up to him to cut it himself with his own tools.

Long cross-country trips were often made through forested areas where there were no trails or roads with saddle and pack animals. We would probably hesitate some before starting out on those trips today, but it was all in the days work to them.

Each ranger usually did his own fire fighting, or as much of it as he could, alone. Occasionally he received help from a neighboring district or the assistance of some trapper or settler who received no pay for his services. There were no "stand-by" crews then or emergency smoke chasers, or any smoke chasers at all. It was all up to the Ranger.

There were no telephone lines or other means of communication except by messenger on foot or horseback. This was so slow that, by the time help arrived it was always too late. So the actual accomplishments in fire fighting in those days must be credited to the Ranger himself.

It was the custom of each ranger to keep a diary as far back as I can remember. I think these diaries would shed much light upon human behavior, human struggles and achievements of those days, and I quote a part of one ranger's diary I once read which was as follows: "Have been fighting fire up here above Lake McDonald two days now, with nothing to work with but my hands. Skinned both of my knees climbing up here over the rocks. Both of my hands are burnt and skinned too. My God, how much longer can I stand it?"

The next day's entry — "Got the fire under control. My knees have scabbed over and feel pretty good today, but my hands are in a hell of a shape. Dammed if I'll ever fight fire with my bare hands again."

My own experience in the Forest Service was after it was under the Department of Agriculture and "modernized" to some extent. Although there were still no telephone lines, there were a few more roads and trails, and the Forest Service built cabins for the rangers. That is, the Forest Service furnished the material for construction and as there were more rangers then, they were allowed to "gang up" some on improvement projects.

Salaries had also risen somewhat, as I started in with a salary of \$75.00 per month and only had to furnish two horses of my own as the station in the District I was assigned to was only 30 miles from the Post Office. I only had 60 miles to go for supplies. The district I had was a small one, only about 250,000 acres. I was all alone in this district and had no way of communicating with the supervisor's office except by mail through an isolated post office 30 miles away that received and sent out mail twice a week.

My first winter assignment was on a timber sale in what is now Glacier National Park. There was a ranger who was on furlough throughout the winter staying at the station here and I batched with him during my assignment on this sale. Generally speaking, we got along fine. There was some difference, however, in our ideas on the handling of the sourdough jar. He didn't believe it should ever be cleaned out. He said the "green" that formed around the edges wouldn't hurt anyone. He also objected, to dumping out the tea grounds because it took too much tea for the next brew if there were no old grounds to start with, and I was advised not to wash the frying pans as washing wore them out. He said he had used them for twenty years without washing them. I had no reason to doubt this statement.

This was in a deep snow country where the wind blew a lot and when we left the cabin we always set up a pole in order to be sure to find it, when we returned, as we often had to dig down in the snow to find the cabin when we had been away any length of time.

The year 1910 was a bad fire season. There were still no telephone lines or no regular established lookout points in the area where I was located, which was on the Great Northern Railroad. There was, however, a telegraph station within five miles of my headquarters, which was a decided improvement in communications over what I had been accustomed to.

The district I was assigned to had a considerable mileage of railroad in it of fairly heavy grades, and in those days they burned a poor grade of coal in their freight engines. The firemen usually punched the spark arresters full of big holes in order to make the engines steam better, with the result that a large number of railroad fires were set along the right-of-way.

Early in the season I was advised by the Supervisor to try and handle the situation alone if possible, but to hire help in case of dire necessity, as there was a small appropriation for fire fighting, but it was to be used sparingly. I got by with the help of the section crew for a while by working day and night as there was fire every day; was finally allowed a couple of extra patrolmen to assist me. Then one day in August, the wind came up and one of our fires made a run of about five miles out away from the track. I wired the Supervisor for a hundred men with tools and supplies. He wired back, "Are you sure you need that many?" I wired back, "Yes."

Well, I got about 60 men within the next two or three days and a few days later a company of soldiers from Fort Harrison arrived. By this time I had decided to put in a fire camp near a lake about five miles from the railroad, but had only two old Government pack horses to move the necessary camp equipment in with. These horses had seen better days some ten years or so prior to 1910, and were somewhat string-halted and knee-sprung at the time. They were also broke to the harness and it was decided we would hitch them to an old wagon we borrowed as they were at least able to hold up the neck yoke and tongue. We loaded up the wagon with camp equipment, tools and supplies, tied a long rope to the end of the wagon tongue, hitched 60 of the soldiers to the rope and away we went over the hill to camp by combined horse and man power. After camp was once established, it was supplied by J. W. Whilt, later known as "Rimes of the Rockies," now of Kalispell, Montana, and the two old knee-sprung horses.

The soldiers turned out to be just as good at taking the place of a fire fighter as they were at pinch hitting for a draft horse and we soon had things under control and kept them so throughout the rest of the season. This was on the old "Blackfeet" Forest near Stryker, Montana.

It has been suggested to me that I write some of my experiences with bear while in the Forest Service.

Up on the North Fork of the Flathead drainages there were a good many grizzly bear and I have had my share of experience in dealing with them. I have been treed a couple of times during my time in the Forest Service. On one occasion, I was detained for a four or five hour period. That was close too, but not quite a hair-breadth escape as I had at least a ten foot start on the bear and I maintained that lead until well up the tree. I learned by that experience that I could climb a tree in record time if necessary. However, I hope it won't be necessary, again.

E. A. WOODS
Senior Ranger
Kootenai
(Retired 1937)

713 Highland
Helena, Montana
February 20, 1944

From time to time I have recounted the following incidents. Not that they amount to much, but they seem to satisfy my ego.

A few weeks prior to the famous Two Medicine fire of 1910, the Jap crew located at Summit was burning large piles of old ties under instructions from the roadmaster of the Great Northern Railroad. I informed the section crew foreman, a Jap by the name of Sango, that it was a violation of the law and that I would have to arrest him and take him to Kalispell. And that I would be at Summit that same evening in time to catch the Empire Builder.

When I arrived at Summit I met a Forest officer, and I told him of my contemplated action. Would he care to accompany me to the Jap headquarters? I noticed that this invitation was not eagerly accepted. But he did come along.

After pounding on the door and rapping on the windows and not getting any response, I turned about to discuss the next move with my companion. I just got a glimpse of him on his way back to the section house. On overtaking him, he advised me to forget about the arrest of the Jap until such time as there could be more peace officers present. He said "These Japs are a treacherous gang. Watch your step."

For further advice I contacted that famous character, Slippery Bill. His comment was short and direct: "Get your man."

Returning to the Jap shack, I again pounded on the door. Still no answer. I charged the door and busted it in. Once inside I was surrounded by a half-dozen chattering Japs, gesticulating and trying to assure me that Sango was not present. Determined to find out, I started from the adjoining room. My progress was halted by Japs jammed in the doorway. I have often, in later years, questioned the wisdom of my next move. I withdrew my Luger from my coat pocket and shot a hole in the cabin floor. Apparently I got in the first bluff. I found Sango in bed, completely covered up and pretending to be asleep.

We boarded the train with not a minute to spare. When the train reached Essex a very pleasant, intelligent Japanese came and sat down beside me. He was an agent for the Oriental Trading Company. From that time on he took charge of the Sango case. I believe Sango was fined \$50 and costs.

Unfortunately, the above incident was not conveyed to the proper railroad authorities in time, for two or three weeks later another crew, on, the Flathead side, started the fire that destroyed the Two Medicine watershed.

When I got back to Summit, Slippery Bill remarked: "Why in hell didn't you kill a half-dozen of those sons-of-bitches?"

(In response to an inquiry about Slippery Bill, Mr. Woods wrote as follows:)

Who was Slippery Bill? He was one of the oddest characters that I ever met. A New Englander by birth, a railroader by choice, Slippery Bill drifted West as a brakeman on a construction train for the Great Northern. He was a very well-read man, being able to quote Shakespeare on every occasion. He had a mind like a steel trap and a tongue like a two-edged sword.

During the regime of the Forest Service in the Department of the Interior, he was appointed as a Forest ranger. At the same time he was an owner of a saloon at Summit, Montana. Slippery Bill told me how he would stand in the door of the saloon, gaze at the distant landscape, return to the shelf where he kept the Government records, and write in his diary, "Looking over the Forest." One of his contentions was that a good healthy porcupine could destroy more timber than a Forest ranger could save.

For years he avoided paying license on his saloon. When the officials from Flathead County put in an appearance he claimed that he was located in Teton County. When the officials from Teton called on him he told them that he was located in Flathead. But the time came when he had to make a choice, for the officials of both counties called at the same time.

He acquired the title of Slippery Bill the winter that he put in at the old town of McCarterville. By good luck at winning at poker and by better luck in getting home without being murdered. He told me that when the snow went off in the spring the year that he was there, nine corpses were uncovered - mute evidence of the moral code of the town of McCarterville. Much could be written about his experiences and his eccentric ways, for he was a CHARACTER.

As you travel on No. 2, you see at Summit a monument, Scott Leavitt's Congressional effort, dedicated to Theodore Roosevelt. A few yards from the road, on the south side, is a copper plate set in concrete, dedicated to William Morrison (Slippery Bill), giving the date of his birth and death, and stating that he gave the land on which the Roosevelt monument stands.

(In reply to inquiry about the town of McCarterville:)

No doubt the town of McCarterville and McCarthyville were one and the same town. If you have any further interest in the town, it was located on the bank of Wolf Creek, almost opposite the railroad station of Fielding. The location of the town site is at, present owned by a man by the name of Knowlton. He has converted the place into a dude ranch. It is located on Highway No. 2.

When I was there five years ago, there was but one building remaining of the original town. The reputation of the town was undoubtedly known far and wide.

Another incident which I have often told comes to mind.

The Two Medicine fire was scattered from Summit to the Blackfeet Reservation. At the time about forty of us were camped on a gravel bar on the edge of Two Medicine River. To the rear of us was an overmature growth of spruce. The fire in this spruce swamp was divided in two parts. One fire was burning up the river and another was burning down the river, it was very evident that these two fires would come together.

Among my several duties of foreman, bookkeeper, and assistant cook, I was also the packer, using my own string of four pack horses and my saddle horse. Confronted with all these duties, it was obvious that the days were far too short to accomplish everything. So I did the packing at night.

On one particular evening I approached the camp at about eleven o'clock. Suddenly the heavens lit up. The two fires had met. When I rode into camp every man was on his feet. An atmosphere of fright was apparent. Even the horses seemed to sense that danger was near. The whimpering of my dog didn't lessen the tension. Pretending not to sense the danger, I began to unpack and made a few wisecracks.

The main fire had died down and hundreds of woodpecker-drilled spruce snags were shooting their varicolored columns of flames a hundred feet or more into the air. It was an awe-inspiring scene. The tension in camp had died down somewhat when suddenly a new outburst of flames shot skyward. A small patch of overmature timber close by was going up in flames. I had hardly had time to look around when I saw two young chaps heading across the creek, on the high jump, carrying a large kettle of beans between them which they had snatched off the stove as they made their getaway.

I was never able to account for it, and neither was the young fellow when questioned later, but every time he had covered fifty feet or more he discharged the six-shooter he was carrying in his hand. The uncomfortable part of it was that he was shooting toward camp, never once looking back to see what was what. I was standing on the bank of the river cussing them for all I was worth when I felt a grasp on my shoulder. Turning around, I faced a powerful railroader from Havre. Fear was written all over his face.

"How about this," he roared, "are we all going to burn up here? I've got a wife and two kids in Havre."

Instead of answering his question, I reached into my watch pocket and pulled out a ten-dollar bill. "I'll bet you this at the rate of two to one that you are just as safe here as you would be in Havre."

The tension on his face relaxed.

"All right, boss, if you say so, it's a go with me."

I don't recall at what hour the men with the bean pot returned or the six men who had started down the creek, but the next morning all hands were on the job.

Not only the men in the Service underwent adventure and thrilling experiences, but the women also had a share.

One fall I started out on a deer hunt with three other hunters. Night overtook us and so we decided to lay out for the night. The spot selected was a deep canyon. The timber there, an open growth of lodgepole pine forty to fifty feet, high. All during the night, regardless of our sheltered spot, the trees swayed violently back and forth. We remarked several times that the wind must be blowing pretty hard out in the foothills.

As we approached the ranger station cabin the next afternoon on our return, we noticed that the place had a strange appearance. (This ranger station was located in the North Fork of Dupuyer Creek. The location of the station was changed some years later.) Sure enough the wind had been blowing in the foothills. It had been so violent that the rocks and pebbles flying through the air had broken the windows on the west side of the house and scattered things right and left in its fury - pictures, books, dishes on the table. And it started to move the roof, including the first round of logs.

Fortunately for my wife's safety, two hunters had come by earlier in the evening asking for a night's lodging. They had supper and later went out to sleep in the hay loft. The wind, kept blowing harder and harder, and when the top half of the barn door was torn off and the barn began to rock they decided that they had best seek shelter in the cabin. By the time they had reached the cabin the windows were broken, so they went back and got the door section and somehow managed to find hammer and nails in the shed beside the cabin and nailed the door over one window and an old canvas over the other. Had it not been for their assistance, I fear my wife might have been seriously hurt or perhaps killed.

And speaking of wind brings to mind the following incident which I take the liberty of recording.

My old friend, Richard Dean, long since gone to that land from whence no traveler returns, was ranger in charge of the Dupuyer Creek District. This district, by the way, extended south to the Teton River, north to the Glacier Park, west to Essex, down Big River, and took in the headwaters of Spotted Bear.

Supervisor Bunker, stationed at Kalispell, came over on an inspection tour. One of his objects was to inspect the Jack Clack sawmill on the South Fork of Dupuyer Creek. The time happened to be in the fall of the year when the wind is practicing up for its heaviest punches later in the season. Part of the road and trail to the mill was located on some badly exposed reefs. The growth of the trees on those points was of a parallel character, due to the violent and incessant wind. Both riders were bundled up for the emergency - heavy underwear, heavy shirts, vest, dress coat, mackinaw coat, and a heavy sheepskin coat.

Rounding one of the most blustery points, Bunker looked over and observed that Dean had not put on his sheepskin coat, that it was tied on the back of the saddle. Riding up close, he shouted:

"When do you put on the sheepskin?"

"What's that?" Dean roared.

Bunker yelled his previous question. "When do you put on the sheepskin?"

"Oh. Oh, when the wind blows," Dean called back.

After reading this over, I am somewhat hesitant about forwarding it. At that time I thought I was "some punkins" as a United States Forest ranger. Today, well, maybe, I would handle situations differently and forget them just as incidents in the day's work.

E. ROSS YOUNG
Forest Guard
Kootenai
(Retired 1943)

Fortine, Montana
May 1944

I regret that I could not get around sooner to replying to your letter asking me for some of my experiences during the thirty-one seasons I worked for the Forest Service on this district. I did not witness anything very thrilling during my service, but may be able to relate a few things of interest.

My first duty was to help plant some yellow pine trees in the spring of 1913. That makes the trees around 30 years old at this time. They were about 6 inches high then, and they are 25 to 30 feet high now. Some of them are 6 to 8 inches in diameter at the ground. They are about three miles from my post office and can be seen with a glass from the little hills near the post office,

The spring of 1914 I was cutting a patrol trail from the headwaters of Deep Creek to the headwaters of Whitefish River. There I met two surveyors from Washington, D. C. Their names were Evans and Whaley. They were mapping and contouring the mountains in what is called Whitefish Divide Range. They were the first to map this range of hills to my knowledge. They were the ones to give one of the mountains near my camp my name Mount Young. With a glass, I could see these men at their work on different points during the spring of 1914.

From 1915 until 1932, my usual duties were maintaining trail in spring, spending the fire season on lookout duty, and constructing new trails after fire season until the season ran out. I also helped repair telephone lines in spring and build new lines in fall.

In the season of 1917 when I was stationed on the Gibraltar Lookout I got credit for reporting 14 forest fires. That was the record season for me. I suggested that I camp steady on the lookout, and Ranger Fred Herring agreed with me. That was the first year that a lookout, camped constantly there. I was the first one to my knowledge to start this. Also, this was the first year the Forest Service supplied the employees with food and bedding.

Things went very smoothly with few fires, until 1924. Gibraltar was abandoned. I was moved to another point, called the Roberts Lookout, on Meadow Creek watershed. In this season, 1924, the Forest Service built a new steel tower - a small one about 40 feet high. As there were no lookout towers manufactured at that time, they made the top half from a water tank. I worked on this point until 1943 except for about three seasons when I was stationed on other points.

In 1924, the year I worked on the tower and observed the country, I woke up one morning at 4.00 a.m. and watched a very dangerous lightning storm. I reported where the lightning was striking in the north Flathead, and as there were no guards up there the ranger relayed the message to the Flathead Forest office. They sent some men up there and informed me that they found four fires.

This was the first time on this district that they requested lookout men to record lightning storms and strikes to my knowledge.

As to my narrow escapes. I feel that I have been lucky. In June 1923 I was helping take down an old telephone line, it was a double line, and I put my sling between the two lines to detach the insulators. The pole broke off at the ground, and I had to go to the ground with the pole I received a bruised hip and a left-side rupture.

I had a second narrow escape in 1926. I was on the Whitefish Divide fighting fire in a crew and a burned tree came silently down across the trench with no warning. It struck between me and a man about twelve feet ahead of me. It did not miss either one of us over six feet.

The next narrow escape I had was late in the fall of 1941 when I was cooking for a road repair crew. A black bear began to take our food supplies, and got so bold he tried to come in the kitchen one night I met him near the door. We were about six feet apart in the dark. The bear refused to back up and I shot him with a 12-gauge shotgun, hoping to knock him out. My chances were about one to four with the bear in the dark.

I have learned that nearly all big game are dangerous when they have their young ones with them. They will all stand their ground and show fight.

About tools and equipment. We got along with an axe when going alone. When two were together we took a saw. We traveled on foot at first; and packed our food, and wherever night overtook us we made camp. When they started me out alone I chose the axe and packed the food on my back, and could stay out ten days very well this way.

I have been on the labor market 54 years and have spent 30 of these with the Forest Service in northern Montana. These 30 years have been the best part of my life. I have never lost any pay that I had coming. My enjoyment of my work has been such that when I have been out on the Forest on jobs I felt I was out in the green forest on a vacation and the Service was giving me wages and paying my expenses. I liked this kind of work too well to ever look for another job. When I retired, the boys of the Forest Service made up a collection of \$32.50 for me, and gave me one of the Service beds, which I hope to sleep in all of my life. I do not have the words to express my appreciation.