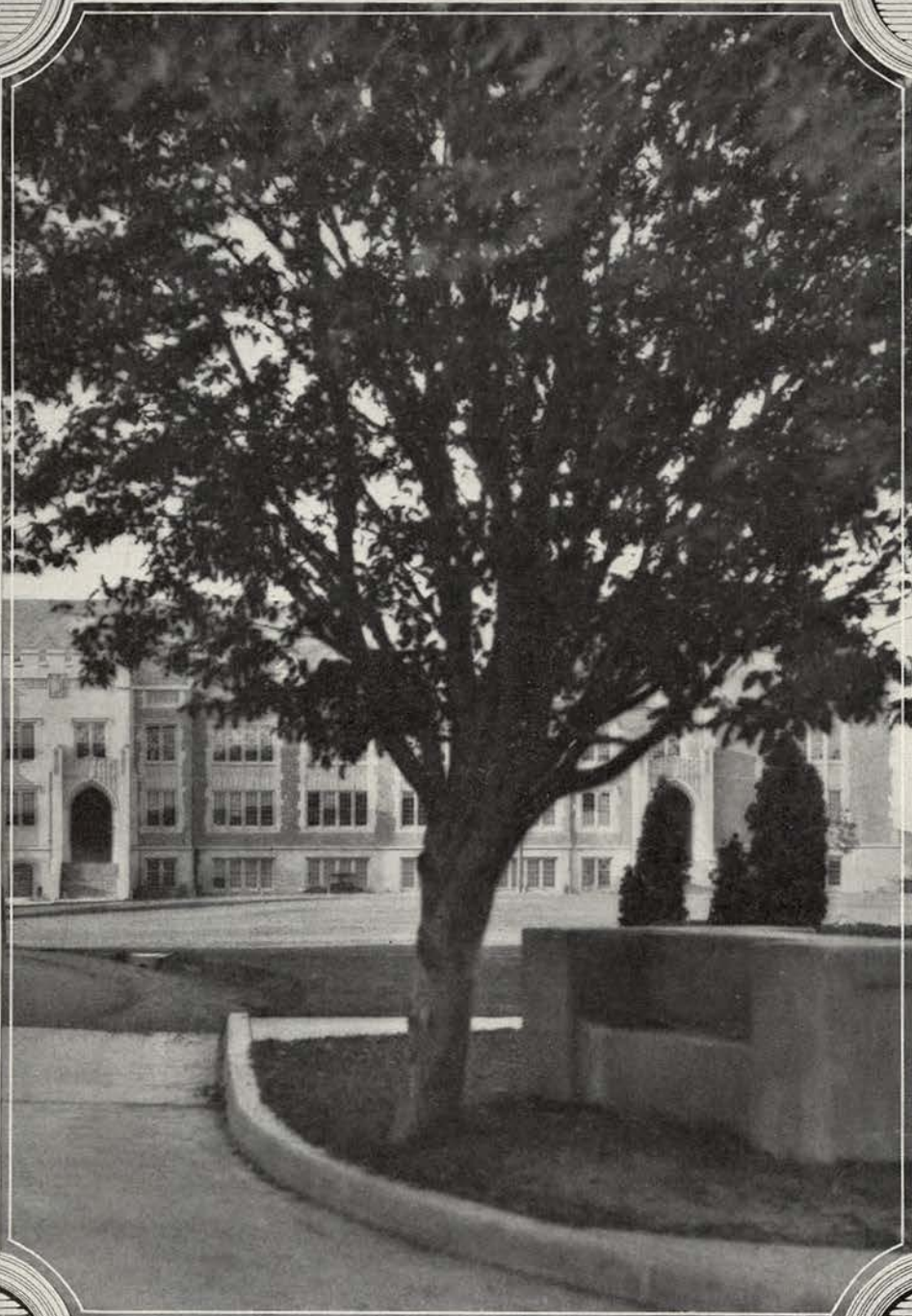


The cover of 'The Idaho Forester' journal features a dark, textured background with a light-colored illustration of a forest. The illustration shows several tall, thin trees, a horse and rider in the foreground, and a small building or cabin in the distance. The title 'The IDAHO FORESTER' is prominently displayed in a light-colored box at the top. The volume and year information, 'Vol. XIV. 1932', is printed in the lower right area of the illustration.

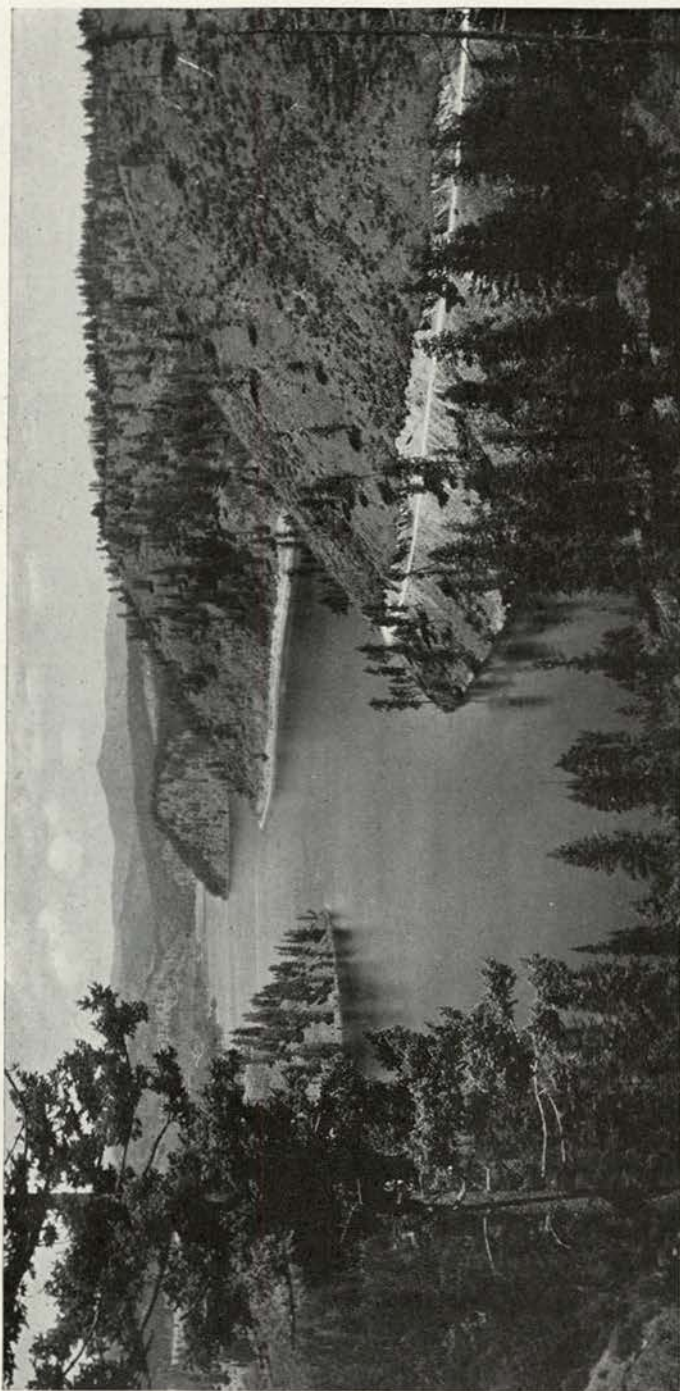
The IDAHO  
FORESTER

Vol. XIV.  
1932

YRABELL  
OHADI TO YIMU  
WOOZON



*"Here We Have Idaho"*



WOLF LODGE BAY, COEUR D'ALENE LAKE, NORTHERN IDAHO  
*While overlooking this scenic spot it is said that General William T. Sherman in 1877 remarked,  
"Here is where I should like to spend my declining days".*

# THE IDAHO FORESTER

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YEARLY  
OFFICE TO THE  
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#### Dedication

To Mr. Huntington Taylor, a successful lumberman, an executive of ability, a man of broad public interest who has given freely of his time for the promotion of forestry in Idaho, this edition of *The Idaho Forester* is gratefully dedicated.

# A CHALLENGE—QUO VADIS?

HUNTINGTON TAYLOR\*

General Manager, Crater Lake Lumber Co., Sprague River, Oregon.

In these days when prophets are without honor in our country, and profits are harder to locate than an oasis in the Sahara during a sand storm, the sanity of one who has the temerity to offer advice as to what phase of lumbering offers greatest opportunity to those thinking in that direction might well be questioned. And yet it is a decided reflection on those of us who have spent the major part of our lives in the industry not to be able to intelligently point out some phases which need strengthening and to which those considering lumbering as a life work might well direct their efforts, constructively for the industry and with success for themselves.

There will always remain the question of the individual's adaptability for certain types of work and even in the most crowded department a place will develop for the one who has outstanding inclination and ability along that given line.

Perhaps the best way will be to indicate what seems to me some of the weak points and from these let the individual interested decide for himself his fitness to help fill in the gaps in the fullness of time.

First, let me say that to be a good lumberman a man should be master of half a dozen businesses—engineering, construction, railroading, milling lumber, marketing, and at times river driving, dam building, etc.—each of which would require a life time to learn, so it is not strange that weaknesses have developed in the rapid transition from a comparatively local to a national business. With in the memory of men still active, the mills on the Mississippi sold the yards in Kansas and Nebraska and settled once a year after the farmers had sold their grain.

Within my own experience the mills in Minnesota only wanted to know whether or not there was a good crop in the Dakotas, Iowa, Illinois, Kansas, and Nebraska to determine the volume of business for that year. That was all it was necessary to know.

From that, in comparatively few years, to the present status, when a happening in some obscure European state we know little of may effect the lumber business in the western United States with

in a few weeks, is a long stride and gives some conception of the kaleidoscopic changes calling for adaptability of a higher order which the industry has had to meet in its marketing program.

And perhaps because those drawn to lumbering have been in the nature of the game distinct individualists and loggers and manufacturers—rather than merchandisers—they have been slower to adapt themselves to the new order of marketing than some of their competitors.

## *Research in Lumber Industry Necessary*

For years we had been accustomed to furnishing what our customers asked for in the knowledge that they would have to have lumber—not selling or helping our customers to sell “lumber” against other materials. So even today in most cases one “lumber” salesman is selling in competition with another “lumber” salesman for a bill of “lumber” which the customer is predestined to buy in “lumber,” while the substitute salesman is selling against the world, showing the retailer where and how his product can be sold and what used for.

The result has been that substitutes have taken away some markets in which lumber was better than the substitute. Why? Because we have not known enough about the uses to which our product could be put and have not been in sufficiently close touch with the ultimate consumer. So here is one of the real opportunities for those interested in that phase: *Research in the merchandising field.*

But you may ask what is the need of technical training—a real salesman is born and not made, and can sell better oftentimes if not hampered by too many facts. My answer is that there are exceptions to all rules, but the salesman of the future must know his “wood”. He must be able to make technical surveys of his possible markets. He should know the relative value of lumber to competing materials in dwellings and other construction. He must find out to what new uses his product can be applied and why substitutes have taken some markets away. He should be taught that when he finds a certain market has been lost by reason of the fact that the substitute is economically better he should not waste his time trying to get the market back, but look for other outlets where he can prove his product to be superior—there are many. It wouldn't be

\*Mr. Huntington Taylor, a former Idaho resident, was a Regent of the University of Idaho for the period 1923 to 1930. This article was written by Mr. Taylor for Idaho forestry students and supplies considerable food for thought.

good judgment to spend energy trying to sell wooden sidewalks in this day, tho it was a great market some years ago.

He should know that prices ought to be held in proper relationship with the cost of other materials with which he is competing and that when he has gone to that level no more will be sold or consumed by price cutting; after that it becomes a case of dog eat dog within the industry itself. Buying is freer in a steady than on a declining market. Most buyers are willing to pay the price so long as they are sure their competitor can't buy cheaper. They want to know that their inventory is worth what they paid for it and not a dollar a thousand less because their competitor bought his that much cheaper a week or so later. He should be able to make an economic survey of his territory.

#### *Students Should Make Surveys*

It seems to me not beyond reason to visualize a course in the School of Forestry in which the students would, as part of their regular work, make a survey of the actual amount of lumber being used today by the Palouse farmer, what he is buying in substitutes and why, etc. Not a theoretical survey of what he "ought to use" or normally should require but what he is actually doing. And I can conceive that such a course carried on over a period of time and under changed economic conditions would show trends and developments of much interest and value.

Too many statistics and surveys are misleading because based on the theoretical what we "ought to do." The answer is that if we all did what we ought to do we wouldn't need any policemen.

My experience in buying from the steel industry, for example, is that somewhere and somehow their salesmen have had both technical and merchandising training and depend very little on "price" in making their sales. They seem to take it for granted that you will be willing to pay them what will return a reasonable profit provided they give service and quality. This would be a new school of thought in the lumber business where cost has never had any relation to or effect upon the price quoted or obtained.

#### *Technical Training Essential*

So I repeat that while I have only touched on the possibilities in a crude way, I trust I have suggested a line of thought which may help you to realize how and why a technical training added to a sales type of mind may become of immense

value to the individual company and the industry as a whole.

High grade lumber does not present great difficulties. The trouble is that most of us follow the line of least resistance in marketing low grade lumber. The problem is how to develop markets which will give a profit on common lumber.

The Rotary Magazine of January 1932 has an intensely interesting article entitled "Fighting for New Business", which is instructive in citing instances of real marketing based on intelligent surveys and adaptability.

Another field with which you are more familiar is the technical research department—equally important but calling for a different type of mind. Something has been accomplished by individual concerns along these lines but nothing compared with what can and will be done. Fabrication—cutting to size at the mill for house erection on the ground—is an example.

Fibre possibilities are in their infancy and it is more than probable that developments along this line will make economically possible the utilization of a much larger percentage of the tree than has been true in the past.

#### *Opportunities Very Diversified*

Fire resistant treatments, chemical by-products, etc., will give opportunities for those whose talents lie more specifically in this field because the necessities of the case are bound to force expansion in these directions.

The marketing of such by-products as can be developed from the larch tree, for instance, will require methods of merchandising quite foreign to the lumber industry, but it contains, according to authority, ingredients which may make it the most valuable of Inland Empire woods instead of, as at the present, and for a long time past, a distinct liability.

I venture the opinion that had the lumber industry put aside a minimum of \$100,000.00 per year for the last 15 years for purely experimental purposes, "boards", as such, would today bear the same relationship to the lumber industry that beef does to the meat industry. (What would a beef steak cost today if it weren't for the by-products?) And that there are a number of mills built within that period for making "boards" which would either never have been built or would be much smaller in "board" capacity and merely adjuncts to by-product plants. On the contrary, as an industry, we have not even spent enough money to

(Continued on page 44)



# HOW THE WHITE PINE CAME TO IDAHO

G. B. MAINS

Forest Supervisor, Boise National Forest, Idaho

For years it has been a practice among woodsmen at the beginning of the career of a young compassman to send him out alone to locate a corner on Section 37; and when he returned weary, crestfallen and defeated, to laugh uproariously and explain to him that there is no such tract of land.

I fared no better than my predecessors when I started out to become a timber cruiser. I took the ragging of the cruisers with the best grace I could muster, but the fact that I knew most legends had their foundation on facts and the desire to turn the laugh on my persecutors led me to look further into the system of surveys in the state in which we were working.

My investigations developed that the land surveys of the state had begun on three sides and had been carried toward the interior, following the trend of settlement which in turn had followed the waterways; the Great Lakes on the north and east and the Mississippi River on the west.

To explain what happened when these surveys joined, it must be remembered that in those days the surveying was let out by contract to the lowest bidder, correction lines were not yet established, the solar transit was not in general use, the great beds of hidden iron ore deflected the compass needle and chainmen were no more infallible than now.

For some or all of these reasons, when the surveys finally joined in the north central part of the state on a tributary of the Mississippi River, the township corners of the various surveys did not coincide. The difference was represented by a rectangular tract of land nearly a mile square, which was attached to the last township surveyed and numbered Section 37 as shown in the diagram, page 46. It was not many miles from where we were working.

When the mail brought the official plat of this survey, I waited until the crew had gathered around the camp fire that evening and the usual kidding of the compassmen about Section 37 began, and then brought out my map. The cruisers went early to bed that night leaving the compassmen around the camp fire to gloat over their discomfort.

A few weeks later our work brought us close to this township, and one Sunday morning another

compassman and myself decided to look up this Section 37.

We started early in the day. Picked up the south line of Section 36 in the township and ran east on it, following the blazed line through the timber. While still a score of paces from where the corner should be we came upon the reedy shores of a roughly rectangular lake. We looked at our township plat. It showed no body of water; nothing but a small stream some 21 links wide crossing the section from north to south near the center, and plainly written across the face of the map was the surveyor's note: "Timber—White and Norway Pine."

## *Section 37 Found*

We checked our pacing and compasses, but there was no mistake. We looked for a meander corner. There was none. We continued our compass line along the south shore of the lake, finding an occasional blaze on a tree as we proceeded. We paced out the mile near the southeast corner of the body of water, and after some search found a fallen Norway pine at the waters edge which, when turned over showed the surveyor's scribe as legible as the day it was written. It read: SEC. 37 T 23 N R 13 W B T. We compassed north from here, following closely the edge of the lake, and finding an occasional line blaze. Our pacing showed the lake to be one and an eighth miles long. There was no evidence of a section corner here so we continued west, the compass line still followed the north shore of the lake and the distance was the same as on the south shore. Here we found a spruce tree with its roots in the water that showed signs of ancient axe marks. Our hand axe was brought into play and after carefully chipping away some four inches of overlaying timber we found some lettering as on the witness tree at the southeast corner of the lake. We paced south to where we had started. The distance was the same as on the east side. The lake was a rectangle and occupied the place shown on the government survey plat as Section 37, and which the surveyor's notes described as being covered with timber.

What had caused the lake and what had become of the timber? As we started back to camp the weird laugh of the, until then, silent loons, followed us into the forest and added to the feeling of

mystery that was enveloping us.

On the way back to our camp we stopped at several settlers' cabins to see if we could find any explanation of the mystery. So far back as any of them remembered Section 37 had always been a lake. The last one visited invited us in to supper and upon being questioned, stated that one of the early settlers, whom he called Black Cal, had once told him a strange tale about their having been timber where the lake now was. He gave us directions for finding Black Cal's cabin, but it was too late to visit him that evening so we made our way back to camp in the soft dusk of a summer's evening.

The next Sunday I hurried through my share of the camp work for I had decided to call upon Black Cal and see if he could explain the discrepancy between the surveyor's classification of Section 37, and what I had actually found.

Black Cal was a tall spare man somewhere around sixty years of age with a kindly twinkle in his piercing black eyes. After introducing myself and informing him of my business I told him of my visit to Section 37 and what I had found. I asked him if he could explain why the surveyors had found the section covered with timber when they platted it and there was nothing but a lake today.

#### *Paul Bunyan Involved*

Black Cal puffed on his pipe for a few minutes before answering me.

"Ever hear of Paul Bunyan young feller?" he finally asked.

"Certainly", said I, "my grandfather worked for him the first winter he was in this state."

"Well", said Cal, "when I came west in '58, I went to work for Paul over on the Mississippi that fall and stayed with him until the war broke out in '61. All the able bodied men came down with the drive that spring and Paul sold his logs at LaCrosse and paid us off. Most of us single fellows enlisted there but Paul went on to Washington to offer his services to the President. Before he got there Jeff Davis heard about it and put up an awful holler to the Hague Tribunal, claiming the North was taking unfair advantage of the South in enlisting Paul, and there would not be any use of fighting if they did, and so forth and so on. Well, the Tribunal deliberated all summer and kept Paul fretting and fuming around Washington until fall when they delivered their ultimatum, that Paul was "contraband" and could not be used as an enlisted man in the front

lines, but could be used in the commissary department."

"Paul nearly cried when he heard this. Then he got mad and was for starting across the Atlantic to disrupt the Tribunal, but the President sent for him and put his hand on Paul's shoulder and said, 'Paul, men tell me you are the greatest logger that ever stood in a calked shoe and I believe it'."

"I am going to need timber for ships, for barracks, for hospitals and many other things. You can serve me as well up there in the north woods as you can on the front lines. Here is a commission as Captain. Go back to your forests on the Mississippi—they tell me most of it is government land—and send me timber until I tell you to stop."

"Paul took the commission and tore it up and said, 'Mr. President, I will do as you say, but I don't want any pay if I can't be at the front'. Then he turned and started for the north woods that very day."

"Most of his best men had gone to the war, but some of the married ones had not. He gathered these with the old men and boys together. He sent up into Canada for neutrals. He worked night and day himself and poor old Babe hardly had time to chew his cud. Such logging as went on the next four years was never seen before nor since. Every spring the Mississippi ran black with logs."

"When Lee surrendered, Paul wired the President, 'What shall I do now?', and the President wired back: 'Keep on logging, we are going to need millions of feet of lumber to repair the damage we have done to the South'. So Paul went back to his logging. Then the President was killed, but Paul, after a day of mourning, with all his crew went on cutting government timber and sending it down the river for he knew it would be needed."

#### *Paul Undersells Competitors*

"During the hard times that followed the war some of the other lumbermen began to complain because Paul was selling his logs cheaper than they could, and one of them reported to Washington that he was stealing government timber. Some special agents came out to investigate and stump scaled over four hundred million feet against Paul. He told them what his orders were, but when they asked for his proof he realized his mistake in tearing up his commission and he had

# TWO VISITS TO THE INTERIOR OF IDAHO

DR. M. G. NEALE,

President, University of Idaho

It is hard to write about the interior of Idaho without displaying too much enthusiasm. Many of the people who have lived in Idaho all their lives and who have grown up with the beautiful scenery which the state contains seem to take it as a matter of course. One who sees it for the first time as an adult is inclined to feel that for majestic beauty and stimulating variety of scenery, few parts of the earth surpass the interior of the state of Idaho.

The general impression which remains with me after two trips into the interior of Idaho is one of beautiful forests untouched by the hand of man, magnificent mountains, beautiful streams, deep gorges, clear mountain lakes well supplied with trout, and places where elk, deer, mountain goats and sheep may still be hunted. Last July, when practically the entire country was sweltering in the heat, we travelled over the Sawtooth Mountains during cool days, camped beside a lake where there was frost at night, and drank water from a spring branch which came from a small glacier just above our camping place.

Another impression which remains with me is one of the importance and attractiveness of the work of the U. S. Forest Service. I recall vividly coming over a high divide just west of the "Primitive Area" and riding down into a valley. A spring started a stream which ran through the center of this valley. On the side of the valley across from where we came in was a trout fishing stream. Around this meadow-like place was a primitive forest. In its center was a well-built log house and in the house lived a forester with his wife and three children. It was a common thing to see deer coming up to the edge of the meadow. Pheasants were abundant in the nearby woods. It seemed to me that this forester who had the opportunity of spending the summer in such a place and on work so intimately connected with the general welfare of the country had almost an ideal life.

## *Forest Service Personnel Outstanding*

Everywhere we went in the Primitive Area, through the various national forests or in the Sawtooth Mountain area, we found employees of the Forest Service. They were a splendid group of men, interested in their work, alert and vigi-

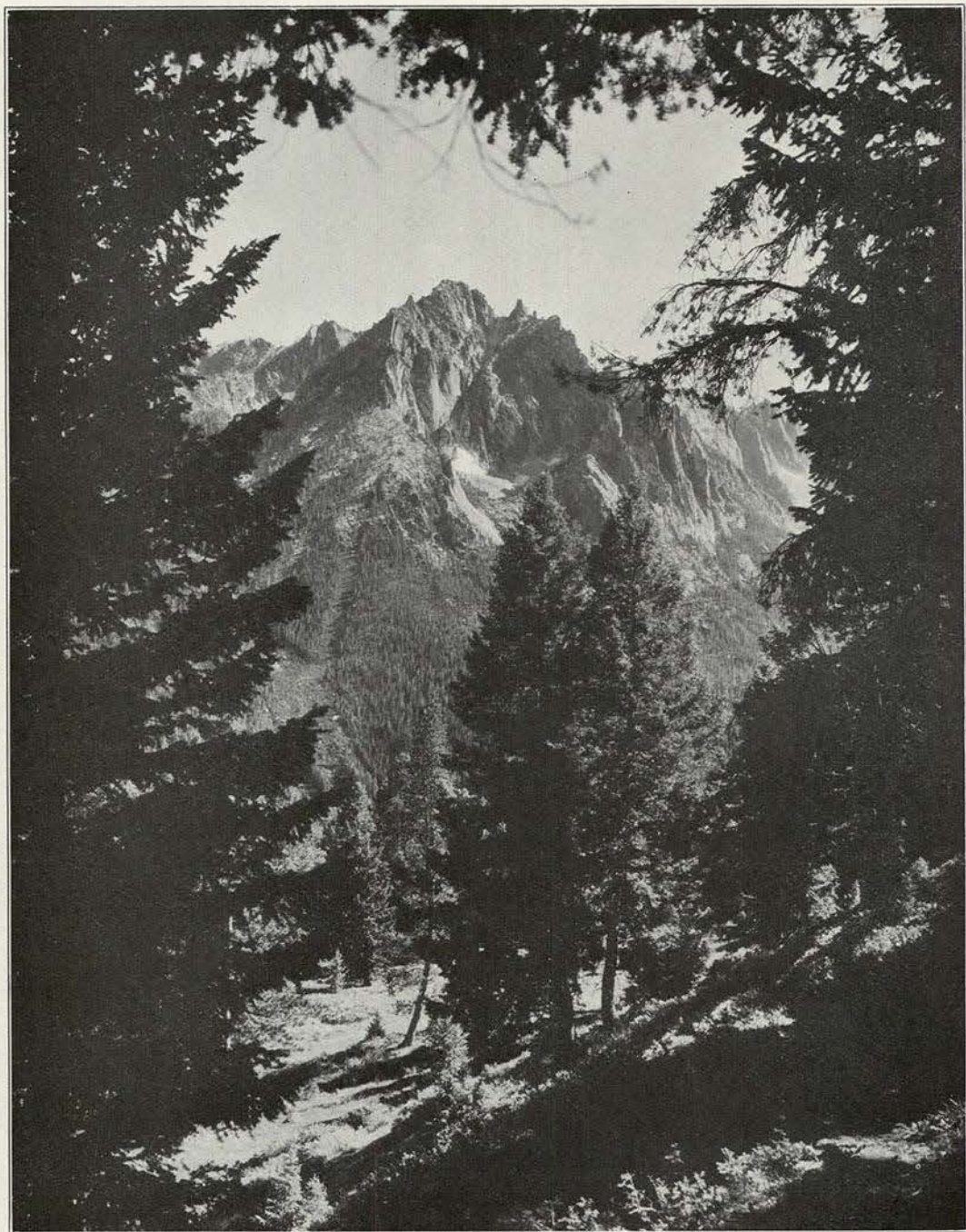
lant in the interests of the national forests. It appeared to me that they were doing an invaluable work and that it would be a great mistake, not only for the state of Idaho, but for the nation, if the Forest Service were restricted in such a way that injury to the millions of acres of national forests in Idaho might result.

There would possibly be little justification in taking the space of *The Idaho Forester* for details of these two trips into the interior of the state. The first one was made in company with Dean John W. Finch of the School of Mines and Metallurgy of the University of Idaho. We visited the Primitive Area in connection with the work of a geological survey party from the University of Idaho and the Idaho State Bureau of Mines and Geology. Dean Finch went also to confer about plans for geologic surveys to be made by the University of Idaho in cooperation with the United States Bureau of Mines at Washington, D. C.

## *Mines Are a Great Resource*

This trip took us through McCall, Cascade, Knox, Yellow Pine, by the Stibnite Mine and on to the Meadow Creek mining developments. Here we left our car and went by pack train into the Thunder Mountain country. Our ultimate destination was the Sunny Side Mine. This territory is in the southeast part of the Primitive Area. On our return trip we came by Roosevelt Lake which was formed about 1908 by a slide which started just west of the Dewey Mine and moved down Mule Creek making a dam across Monumental Creek some twenty-five or thirty feet in height. An accompanying picture shows Dean Finch standing on the edge of this lake which covers the buildings of what was a flourishing mining town in the days of the Thunder Mountain gold rush. The two-story building which stands highest above the water in this picture was formerly the saloon. On our return trip we took the trail up Monumental Creek. We passed large numbers of well-built log cabins constructed during the days of the mining boom but which now stand vacant.

The second trip was planned by national, state and private forest officials. The party included Governor C. Ben Ross of Idaho; Dr. Henry B. Ward of the University of Illinois, formerly



MOUNT HEYBURN OF THE SAWTOOTH MOUNTAIN RANGE

*Mount Heyburn has an altitude of 10,229 feet and affords a splendid example of the beauties of the Sawtooth Mountain area.*

president of the Izaak Walton League of America; R. H. Rutledge, Ogden, Utah, regional forester; S. B. Locke, then assistant regional forester, now chief conservation officer for the Izaak Walton League of America; C. B. Morse, assistant regional forester, Ogden; Ben E. Bush, state forester; M. P. Bailey, state game warden; J. M. Isaacson, state land commissioner; W. D. Humiston, Potlatch, former secretary of the North Idaho Forestry Association; H. C. Shellworth, Boise, secretary, Southern Idaho Timber Protective Association; Fred Foster, supervisor of the United States Bureau of Fisheries; and Ansgar Johnson, Boise, photographer.

#### *Idaho Has Hot Springs*

This party started from the lookout station on Brundage Mountain near Payette Lakes. Brundage Mountain is over 7,300 feet above the sea level and is in a most beautiful country. From here we drove to Burgdorf. We stayed over night in the old hotel which I am told was one of the first health resorts in this state. We bathed in the Burgdorf hot springs and thoroughly enjoyed our stay in this resort. From Burgdorf we went through Warren and on to Edwardsburg. Some members of the party drove back through Burgdorf and Payette to Yellow Pine, but five or six

members of the party walked about seventeen miles over the mountain to Yellow Pine. The ones who made the walk were Ben E. Bush, M. P. Bailey, J. M. Isaacson, C. B. Morse, and H. C. Shellworth. We found the trail between Edwardsburg and Yellow Pine to be excellent. Before we got to Yellow Pine, however, practically all the members of the party were urgent boosters for a Forest Service road between Edwardsburg and Yellow Pine. This road, in addition to being a very useful one would open up an interesting scenic drive through Payette, Burgdorf, Warren, Edwardsburg, Yellow Pine, Knox, and Cascade.

There was a big community dance at Yellow Pine on the evening of the day of this walk, and all the members of the party were invited. People came to this dance for miles over the mountain trails and Forest Service roads. The dance was attended by those of our party who made the circuit from Edwardsburg through Payette and Cascade to Yellow Pine in automobiles, but the members of the party who had walked over the mountains went to bed too early for the dance.

From Yellow Pine we drove in a general south-

(Continued on Page 49)



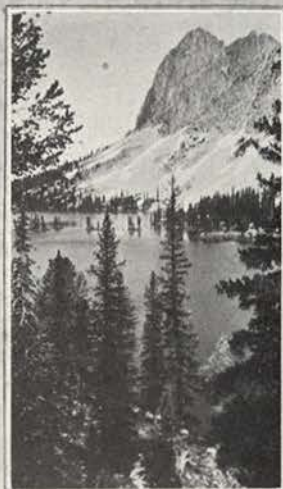
ROOSEVELT LAKE  
PRIMITIVE AREA



MIDDLE FORK SALMON RIVER  
NEAR MAHONEY CREEK



SLEEPING DEER MOUNTAIN  
AND AN UNNAMED LAKE AT  
HEAD OF CACHE CREEK



ALICE LAKE  
SAWTOOTH MOUNTAINS

## A TRIBUTE TO DEAN MILLER

My attention was first called to Dean Miller in 1907 when he came to Seattle to organize the Department of Forestry in the University of Washington. His success in that enterprise was noteworthy in a region which from the beginning was one vast forest, and whose chief industry was lumbering. I learned some five years later that Dean Miller had been tempted by the marvelous development of the fruit industry in the Wenatchee Valley to desert his first love and cast in his fortunes with this enterprise. It occurred to me then that I might induce him to return to forestry, and so I began to lay plans which in 1915 resulted in securing his acceptance, of the deanship of the School of Forestry of the State College of Washington of which I was at that time President. Everything pointed to his successful career in this new field.

In 1917 however, the Legislature of the State of Washington decreed that the major work in forestry should be confined to the State University, thus cutting off from Dean Miller the possibility of achieving his ideals in forest education in the position which he then held. Meanwhile, I had become State Commissioner of Education of Idaho. Dr. C. H. Shattuck had previously resigned from the Department of Forestry of the University of Idaho. I then, with the approval of the State Board of Education, offered to make Professor Miller dean of the newly created School of Forestry at the University and he accepted that responsibility and still serves in that capacity.

Francis Garner Miller was born in Illinois, the son of Isiah and Isabel Jane Miller. He was graduated from the University of Iowa in 1900 and took the degree of B.A. in Agriculture in the State College of Iowa in the following year. Entering the postgraduate work of the Yale School of Forestry he received the degree of Master of Forestry in 1903. He married Evelyn Depew in 1906. As a young man he had served as a superintendent of schools in Iowa, prior to taking his university degree. In the year in which he took his Master's degree in Forestry at Yale he became professor of Forestry in the University of Nebraska serving there successfully until his call to the deanship in the University of Washington. With his career as head of the School of Forestry of the University of Idaho most of the readers of this publication are familiar. With a

mature knowledge of his chosen science and of the Pacific northwest his services have been of incalculable value to this institution, to the state of Idaho, and to the Nation. Not only did a thorough reorganization of the forestry work of the institution follow, which has attracted attention from many states and foreign countries, but he became an adviser and guide to the forestry interests of Idaho. He drew together the forestry interests of the state, the timbermen, stock men, and the United States Forest Service with remarkable success. He has stimulated and guided



*Francis Garner Miller*

research in his field in a remarkable way. I have often said and now say again, that I regard Dean Miller as one of the most typically successful deans that I have known in the faculty of any institution. He and his estimable wife richly deserve the honor and the opportunity of the season of study and travel in Europe which has been accorded them by the University and which they are now enjoying.

Pullman, March 3, 1932

(Signed) E. A. BRYAN,  
President Emeritus, State College of Washington, Pullman.

# IDAHO'S PRIMITIVE AREA

ARTHUR BUCKINGHAM,

Forest Ranger, Challis National Forest, Idaho

The Idaho Primitive Area lies in almost the geographical center of Idaho. It contains approximately one million acres of sparsely settled, more or less inaccessible land included in the Idaho, Payette, Challis and Salmon National Forests. It is bounded on the north by the main Salmon River; on the west by the divide which forms the western limits of Marble, Monumental, Beaver and Chamberlain Creeks; on the south by a line paralleling the Middle Fork of the Salmon River and about four miles distant from it; and on the east by Sleeping Deer Mountain, the Yellow-jacket Range, and the Big Horn Craigs. It consists of a vast forested area with almost unlimited possibilities for recreational use. The timber has little present commercial value. As a result of these recreational possibilities the entire area has been set apart:

"To conserve primitive conditions of environment, habitation, subsistence and transportation for the enjoyment of those who cherish the early traditions and history of this country and desire to preserve in some degree, the traits, qualities and characteristics upon which this Nation was founded.

"To make it possible for people to detach themselves, at least temporarily, from the strain and turmoil of modern existence, and to revert to simple types of existence in conditions of relatively unmodified nature.

"To afford unique opportunities for physical, mental and spiritual recreation or regeneration."

Probably nowhere in the west is there an area so well fitted for the purpose, since it is rugged and remote, with few present commercial activities and small prospect of any widespread development in the future. If at some future date, economic conditions justify a change in policy, the management of the area may be altered to meet these changed conditions.

Only such developments are contemplated by the Forest Service as will provide for adequate fire protection. The present system of trails and bridges may be added to and a few low standard motorways will undoubtedly be built where such improvements are feasible. There are at present, no roads on the area. Much of the country lies at comparatively low elevations, and the vegetation gets very dry during midsummer, hence the

fire hazard is as high as is found anywhere in central Idaho.

## *Economic Resources*

The economic resources of the area are chiefly its timber, minerals, and forage.

The following acreages of National Forest lands are given by types:

	Acres
Timber land .....	984,429
Grass land .....	65,489
Barren land .....	37,570
Brush land .....	256
<hr/>	
Total acres .....	1,087,744

In addition to this there is included within the area, some 4500 acres of State land and 4400 acres of private land.

## *Forests Inaccessible*

Lodgepole pine, Douglas fir, and ponderosa pine are the predominant tree species, with white fir, Engelmann spruce, alpine fir, and western larch following in order of their abundance. Limber pine occurs at the higher elevations.

Considerable bodies of mature merchantable timber are present, however, the region is so isolated and the topography so broken that the construction of transportation facilities for lumbering operations are not feasible at present and will probably not be for many years, if at all. Driving of streams would necessitate much stream improvement and the distance to any possible market is too great to make this method practicable.

Since much of the area lies along the precipitous slopes of the Salmon River, and the Middle Fork of the Salmon, a considerable portion of the area supports very little vegetation of any sort and has been classed as barren.

The largest body of forage land lies along the exposed slopes of the Middle Fork and Big Creek. It consists of a mixture of grasses and the browse plants common to the region. This range receives little use by domestic livestock, its principal value being in its use for winter game range.

Private lands consist of small stock ranches situated on the bars and meadows along the larger streams. Many of these are abandoned at the present time. Because of the degree of isolation and the expensive and inadequate means of transportation that must be used, the agricultural indus-

try has, generally speaking, proven unprofitable. During the past few years all of the unentered lists have been recalled.

Portions of the region are highly mineralized and considerable mining has been done where the values were sufficiently great to warrant high transportation costs. The lack of transportation facilities has undoubtedly retarded the mining industry and until such improvements can be built there will be little expansion along this line. Construction of improvements needed for the development of mining property will in no manner be curtailed except as required by law.

#### *Roosevelt Lake Made Overnight*

There are two established mining districts within the Primitive Area, the Thunder Mountain District, and the Big Creek District. A mining boom of considerable magnitude was experienced in the vicinity of Thunder Mountain, during and shortly after 1900. An interesting feature now, is the old town of Roosevelt which had a population of one or two hundred people during the mining excitement. The old cabins still stand, although they are now more or less submerged in Roosevelt Lake, which was caused by a landslide damming Monumental Creek and raising the water level to a height of twenty-eight feet overnight. The landslide was caused by water from placer mining operations carried on above the town.

#### *Physical Features*

Since the main Salmon River forms the northern boundary and the Middle Fork cuts through the eastern portion of the area, the topography here is rough and precipitous for the most part, with frequent bluffs, cliffs and box canyons. In fact, from the Mormon Ranch, below Camas Creek, to the mouth of the Middle Fork, almost the entire distance is a precipitous rock-walled canyon, broken occasionally by small bars or perhaps opening up at the mouths of the larger creeks. Above the Mormon Ranch the canyon opens up somewhat to give place to steep timbered north slopes, with grass and browse of various kinds on the more exposed slopes.

As one travels west from the Middle Fork toward the Thunder Mountain country this rough topography gradually merges into one of less boldness, and in the Chamberlain Basin and Cold Meadows region the topography is that of high rolling plateaus and undulating ridges.

The range in elevation from the lowest to the highest portions of the area is about 7,000 feet.

Mt. McGuire is the highest point, being 10,000 feet in elevation; however, many of the other peaks and high ridges are but slightly lower.

Most of the smaller streams are short and steep, very often opening out near their heads into small parks or meadows, making ideal camping sites. Many of these streams have their source in small mountain lakes, varying in size from less than an acre to approximately 100 acres. A few of these lakes are well stocked with fish.

Hot springs of varying temperatures are numerous along the Middle Fork and its tributaries. Some of these have been developed in a small way and are ideal places for bathing.

#### *Trout Plentiful*

Due to the isolation of the area, none of the streams are fished intensively and much of the water is not fished at all, so that excellent catches are usually obtained. The Cutthroat Trout or "Redside" is the most commonly caught fish. Other species present are Steelhead, Dolly Varden, Whitefish, and Chinook Salmon.

The run of Steelhead Trout usually comes in April, or at times somewhat earlier if the streams are rising appreciably. Specimens weighing as much as twenty pounds have been taken, although this is exceptional. A ten or twelve pound Steelhead taken with a light fly rod makes royal sport indeed. During early fall Chinook Salmon come up all of the larger streams where they spawn practically unmolested.

#### *Deer Abound in Region*

A total of 13,000 deer has been estimated on the Primitive Area. Nearly all of these are Mule deer although a few white tail are found along the main Salmon, where they have drifted in from the north. Summer range for these deer is abundant, for they are scattered throughout the area. Since the summer range is nearly all country of heavy snowfall, most of the deer winter on the exposed slopes of the Middle Fork and the streams tributary to it. It is the amount of available winter range which determines the number of deer that the area will carry.

During the winter of 1928-29, studies were initiated on the Middle Fork for the purpose of determining the proper utilization of browse species, their relative palatability and other factors pertaining to proper game management. Observations on habits and life histories of game animals are also made. This study has been carried on dur-



# THE LIVESTOCK RANGES OF IDAHO

E. F. RINEHART,

Field Animal Husbandman, Extension Division, University of Idaho

*Silent, mystic and misunderstood lie the ranges. Great stretches of sagebrush plain, bleak and snow-swept by the blasts of winter, blossom into bountiful pastures in early spring. A dry, brown desert under the summer sun is revived to life by the early rains of autumn. Rugged, majestic mountains and great primitive forests serve the three-fold purpose of growing the Nation's timber, serve as the Arctic snow reservoirs for the irrigated farms below and furnish lush summer feed for the wild game and the range stock. Spring range on the sagebrush plains and in the foot hills of the Public Domain, summer range in the shade and freshness of the National Forests, fall range and pastures and abundant winter feed on the home ranch combine to make a rangeman's Paradise. Such is Idaho.*

## *Idaho Tenth Ranking State in Land*

The area of Idaho is 53,346,560 acres, of which 15.6% is classified as improved and unimproved farm land. The remainder, approximately 44,000,000 acres, is in open plain, foot hill, summer forest range, mineral, miscellaneous and unclassified grazing land, utilized by half a million cattle and two million sheep.

From the standpoint of agricultural utilization Idaho lands may be classified as follows:

Improved farms .....	5,591,477 Acres
Unimproved farms .....	3,929,293 Acres
National Forest land .....	19,097,789 Acres
Public Domain .....	10,990,470 Acres
State land .....	2,444,700 Acres
Indian Reservation .....	57,600 Acres

Feed and grazing conditions vary greatly from the sagebrush and foot hill types to various types of forest range. The topography of the country varies from the level, poorly watered areas of the semi-arid type, to the high summer mountain ranges of the Rockies. Generally the Public Domain and State Land consist mostly of spring and fall range, with some winter range. The forested areas constitute the best of the summer grazing, where an abundance of fresh, tender and nutritious feed is available all summer.

The preceding table shows the natural advantages of Idaho as a range livestock state. The balance between farm land and range land gives a surplus of winter feed. Not only are the crops sufficient to winter all the range stock and finish the range feeders for market, but there is a large surplus of feed remaining, the consumption of which has caused the development of the farm livestock industries, such as dairying and the raising of farm sheep, swine and poultry.

In the history of the great range cattle industry, which arose during the '70s, reached its max-

imum in the '80s, and then crashed to an inevitable doom, Idaho played but a small part. Unlike the Great Plains area of the Southwest, the Idaho Territory lay isolated and remote. While trailing in for summer grazing was possible, the trail was long and hard and did not offer the advantages of the Montana and Wyoming regions where many of the Southern cattle came for fattening. Idaho presented a different problem. Summers were bountiful and grazing conditions ideal. Some winters were open, others long and hard. The amount of low lying plain and valley land that could be utilized for winter grazing was limited to such an extent that not all of the good summer mountain range was needed. The result was that only the closer, more accessible mountain ranges were grazed. The more remote interior and higher ranges that are the choicest of all good summer pasture regions were not utilized until comparatively late in the history of the State.

## *Idaho First Known for Mining*

As a Northwest Territory Idaho was known as a mining region. Agricultural pioneers passed through in large wagon trains merely because the easiest trail to the West Coast generally followed the Snake River. This main "trail" was mostly a road to the Oregon country and exists to this day as the old Oregon Trail Highway. Even at the time of extending the Union Pacific Railroad, the plan was to get a short haul from Oregon eastward, so that today the Main Idaho railroad is known as the Oregon Short Line.

The coming of the settler, the homesteader, the farmer and the irrigator revolutionized but did not destroy the existing range industry. While on the Great Plains whole areas of range land were fenced and turned over by the plow, on the rugged ranges of the Northwest the settling was all in the valleys and the lowlands, the area of the winter range. Some spring range was lost in the 320

Acre Desert Act and the 640 Acre Grazing Homestead Act, but only a negligible quantity, and much of this has reverted to its only value, that of open or leased range.

Settling and irrigating the valleys and the low lying plains withdrew most of the winter range. That remaining was badly over-grazed by the stock of the settlers, so that no feed was left for winter grazing. In its stead the farm provided an abundance of winter feed and established the range livestock industry on a safe and permanent basis. Stock ranches were developed along the mountain streams and the feed of the high mountain was utilized for the grazing of domestic stock for the first time. The cattle that had wintered on the low plains were not evident near the towns, the highways and the railroad. The system of range cattle management shifted to smaller units,

ever since. Contrary to popular belief, the coming of the settler to Idaho increased instead of decreased the number of range stock. By substituting hay for other feeds for the limited winter range lost, all summer ranges are now used to full capacity.

The change from year-long grazing, for which Idaho was never well suited, to a combination of ranch and range, made range production a safe and sure rather than a speculative industry. Instead of a period of plenty and a period of starvation, the latter caused by a dry season in the southwest and a cold season in the northwest, the Idaho range stock had abundant feed the year around. No longer was there the pathetic fretting of hungry cattle, the silent pleading in the eyes of starving sheep and the acres of bleaching bones on the plains.



*Beef Cattle on Summer Range in Idaho*

scattering over the entire range area, and becoming less conspicuous.

#### *Livestock Census Interesting*

In the early 80's Idaho had approximately 80,000 head of beef cattle and 27,000 sheep. This was an increase of 66,000 cattle and 26,000 sheep over the 1870 census figures. In 1890 the winter ranges were over stocked with 192,000 head of cattle and 258,000 sheep. With the development of the farms, so that winter feed was available, cattle increased to 314,600 and sheep to 1,966,000 in 1900. In 1910 there were 463,000 cattle and 2,110,300 sheep. The 1930 census gave Idaho 464,590 beef cattle, 157,580 dairy cattle and 2,260,000 sheep. The balance between ranch and range was reached in 1910 and has remained fairly steady

The balance between ranch and range gives Idaho ideal range conditions. The basis of successful range operation is seasonal, with a home ranch for winter, Public Domain or State leases for spring, a Reserve right in the forest for summer and either a fall range or pasture.

#### *The Home Ranch*

Cattle ranches are usually in the mountain valleys where they are strung out in shoe-string form along both sides of the stream and irrigated by the natural flow of the river. Hay is the main crop, with some grain. The cattle winter in the willows and scrub timber, and are fed hay during the period of the deep snows. By fencing the

(Continued on page 52)

## DEAN MILLER WRITES FROM EUROPE

Dresden, Germany

March 17, 1932

To the Editor of the Idaho Forester:

I am glad to comply with your request for a few notes from the "field."

Having been granted sabbatical leave by the President and Board of Regents of the University, I decided to spend the time in study and travel in Central Europe where the science of forestry had its origin and which affords the best examples of forests long under scientific management. It was also decided to spend the first half of my leave in study at one of the oldest and best-known forest schools in Germany in order to acquire a rather intimate knowledge of one school and of the forests adjacent to it as a background for less intensive study of other schools and other forest regions to be visited later. After inquiry, the School of Forestry at Dresden Technological University and the forests readily accessible from it were selected as the base for the more intimate studies.

Mrs. Miller and I left Moscow January 27, going to New York from which port we sailed February 5, on the S. S. President Roosevelt of the United States lines. While in New York we ran over to New Haven to visit the Yale Forest School, where among other friends we met Mr. and Mrs. Robert P. McLaughlin. "Bob", it will be recalled, was graduated from the Idaho School of Forestry in 1925, and is now specializing in wood technology at the Yale Forest School from which institution he will take his Doctorate in June, 1932. We were royally entertained by "Bob" and Eldora who wished to be remembered to their Idaho friends.

On entering our state room the afternoon of February 5, we were surprised and delighted to find, among other greetings and remembrances, a handsome basket of fruits and candies with the inscription "From the Associated Foresters and Alumni, University of Idaho School of Forestry." This basket was our joy all the way across, and we wish to thank the students and alumni for the kindly greetings and good wishes expressed to us in this way.

While an opportunity presented itself at the banquet given for us shortly before leaving to express to the resident students and others present, our deep appreciation of the substantial gift presented to us by the faculty, students, and alumni, we wish in this letter to thank those alumni,

former students, and others who were unable to be present, for their part in providing the token presented.

After an uneventful voyage, we arrived at Hamburg, February 15, and proceeded at once to Berlin, where we tarried the next few days. While there, we met Arthur C. Ringland, the American forest representative in Europe, who though his office is in London, chanced to be in Berlin at the time; also G. A. von Monray of the German Forestry Association whose headquarters are in Berlin. Dr. von Monray visited the Idaho School of Forestry and the operations of the Clearwater Timber Company in the summer of 1926. Both of these gentlemen gave us valuable assistance in planning our itinerary.

These men, both unusually well-informed regarding forestry conditions, stated that forestry and lumbering in Germany are now suffering the same economic distress as forestry and lumbering in America. Imports of lumber and other forest products from Russia are largely responsible for this condition. Due to low production costs, Russia can lay down in Germany lumber, wood pulp and other wood products for less than they can be produced for at home. It is thought, however, that Russia cannot supply the world with lumber indefinitely, perhaps only a few years longer, as already logging chances are moving farther back and logging is becoming more expensive. The German government has only recently voted large sums of money to stabilize agriculture and forestry.

On account of the depressed situation in Germany, the government is giving every assistance possible to reduce the cost of production and to stress research in an effort to find new uses for wood. Every forest agency is being marshalled in the field of research, and the effort is meeting with success in the way of developing from wood such commodities as fuel gas, stock feed, cotton fibre and other like products.

We are greatly pleased with Berlin. It is a busy, hustling city of over four million people and still growing. Since the war the trend has been to centralize government business as well as financial and commercial interests in Berlin. This trend is weakening the larger cities of Germany, especially the capitals of the various states. This tendency is creating a situation which careful observers believe to be unfortunate for Germany as a whole. The states do not have the power and the dignity relatively that they had, nor do the

people now have as much interest and pride in state government as formerly.

From Berlin we came direct to Dresden where we are now comfortably situated and shall remain until May. The School of Forestry, although affiliated with Dresden University, is located at Tharandt, a suburb of some five thousand people about ten miles southwest of Dresden, while the University proper is located in the heart of the city. We live in Dresden and I commute by train to Tharandt where I am doing special work with Dr. Franz Heske, professor of forest organization. I plan to visit with him several of the larger private forest estates in Saxony, Czechoslovakia, and Austria.

There are at present six state forest schools in Germany. The school at Tharandt like most of the others had its origin as a private school. In 1789 Heinrich Cotta founded in Zillbach a private forest school. Later he was called to Dresden and transferred his school to Tharandt, and there continued it as a private school until 1816. Cotta by this time had sacrificed the most of his private fortune to keep the school going. He then appealed to the King of Saxony to have the School taken over by the State of Saxony. This was done and thus there was founded at Tharandt in 1816 the oldest School of Forestry in Germany with Cotta as its directing head. It existed as an independent school until 1929, when it became a branch of Dresden Technological University.

Heinrich Cotta, (1763-1844) besides having the honor of founding the Tharandt School of Forestry, was director of the first Working Plans Institute in Saxony, organized forestry in the State of Saxony, one of the first to introduce scientific management of the forests of Germany and was eminent as a teacher and research scholar.

Tharandt is situated in a semi-mountainous region covered with forests. Simultaneously with the founding of the School there in 1816, a large tract was set aside as a school forest. At that time it was in a run-down condition, the most of it having been cut-over, with patches here and there devastated—just such a forest tract as may be seen almost anywhere in America today. Cotta began at once the big task of rebuilding this forest under scientific practices.

He first prepared by exact surveys a map of the forest as it was when he took it over. At the same time he made a map showing his conception of what the forest should be one hundred years hence, accompanied by a report prescribing step by step how the forest should be managed in order to bring this transformation about. He was intimately associated with this work until his death, thirty years later. Pressler, Judeich and Martin were other famous foresters on the faculty of this school in its early days.

His successors have faithfully carried out Cotta's idea in the management of this forest, with the result that today it approaches a normal forest in the distribution of age classes, growing stock and yield. It is one of the most highly developed forests in all Germany, and the oldest in point of length of time under scientific management. Some parts, cut-over since Cotta took charge, now bear fine forests 80 to 100 years old. So devoted was Cotta to his forest that at his request he was buried in its midst and his tomb has been visited by thousands of foresters from all over the world.

After May 1, we plan to tour other parts of Germany, Italy, Switzerland, France, Sweden, and England, paying particular attention to forestry and forestry education in these countries.

F. G. MILLER

## VAGABOND ROADS

The kings of trade and engineers  
Build highroads straight and wide  
That turn the stream, that span the gulch  
And cleave the mountainside—

But vagabonds and lovers, they  
Choose narrow winding ways  
That curve for rocks and twist for trees  
And run like boys at play;

Such roads as climb to crest, and dip  
To dwell where laughing streams  
Go rollicking 'tween mossy banks  
To mystic lands of dreams;

Brown roads that crawl through flowered fields  
And race with gray stonewalls,  
That hesitate at friendly gates  
Beneath green poplars tall;  
Gay gypsy roads where roses smile  
In sun on sandy knolls,  
Where silver chimes in forest halls  
Arise from thrushes' souls.  
My hut is snug, my hearth is warm,  
My acres bloom with spring—  
But I shall shine my buckle-shoes  
And go adventuring!

STANLEY FOSS BARTLETT.

# A LIGHT TELEPHONE

DR. G. W. HAMMAR,

Professor of Physics, University of Idaho

A telephone using a light beam instead of a wire to carry the messages has been developed in the Physics Department of the University of Idaho. With this instrument it is possible to send speech to whatever point a light beam can reach with sufficient intensity.

The idea of such a telephone is almost as old as the conventional telephone itself and the scientific principles of which it is built are well known and simple. Indeed, a "light telephone" was built more than a year ago by the General Electric Company and used by them for experimental purposes to transmit radio signals, in one case attaining a distance of 1000 yards when a radio program was sent across the Hudson River to a ship.

## *Early Equipment Cumbersome*

The methods adopted by previous experimenters, however, demanded expensive and heavy apparatus, fully comparable with moderate sized radio sending stations. Such cumbersome instrumentation precludes any general use and certainly makes it impossible to carry the apparatus far afield into the forest or the mountains.

Here at Idaho we are interested in the possibility of a "light telephone" that could be taken into the field, that would be light in weight, rugged in construction, cheap to produce and that would have an effective range of at least twenty miles in clear weather. We have worked on such an instrument for a year and now we think we have developed it.

The fundamental principles of the light telephone are very simple. If the light from a bright flame falls on the sensitive surface of a photo electric cell a current will flow through the cell. If the intensity of the light varies the current through the cell will vary. If the variations of the light are similar in frequencies to the pressure variations in the air when words are spoken the current through the cell will also contain these frequencies, and if the current is passed through a telephone receiver the words will become audible.

Our first task was to construct a suitable sending apparatus. Our present instrument is a specially designed acetylene burner which is provided with a thin flexible wall, suitably placed in a shallow protecting box. This box is provided

with a funnel, or horn, very similar to the transmitter of an ordinary telephone. When words are spoken into this funnel the pressure-waves of the voice enter the box and cause the flexible wall of the gas system to vibrate. These vibrations are transmitted to the gas and travel outward to the burner tip and right through it into the flame. In the flame the pressure waves cause variations in the intensity of the light. Since the pressure variations in the flame really are sound waves the flicker they produce is exactly of the desired frequency.

## *Range Varies With Mirror*

The next step is to project the light in the desired direction. We do this by placing the flame at the principal focus of a concave mirror. The larger this mirror is and the more accurate it is ground the better the light energy is concentrated in the beam. At the present we are using a mirror taken from an old automobile acetylene headlight. It has a diameter of  $5\frac{1}{2}$  inches and a focal length of  $2\frac{1}{4}$  inches. In our apparatus it produces a beam with an angular width of seven degrees. By means of a very good mirror it might be possible to narrow the beam to 2 degrees. This improvement alone would lengthen the range of the apparatus to more than three times its present value.

The receiving apparatus consists of a large concave mirror which gathers the light energy from the sending beam and projects it on the sensitive surface of a standard type photo electric cell. The current from the photo cell is amplified by means of a simple and compact two stage vacuum tube amplifier from which it goes to the earphones.

The operation of the telephone is somewhat as follows. The sending apparatus, which weighs about six pounds, is mounted on a light tripod and aimed by means of a peep sight at the receiving apparatus. Since the beam is fairly wide no great accuracy is demanded in this procedure. The flame is adjusted for optimum size and the conversation started. After some experience has been gained these operations should consume less than five minutes.

As soon as the operator of the receiving apparatus observes that his attention is sought he swings his instrument, which weighs about

six pounds, so that the light beam from the sender falls directly on the mirror of the receiving apparatus. After he has done so he completes a few electric connections between the batteries and his apparatus, slips the earphones over his head and listens. If the batteries are in position and the receiving apparatus mounted on a swivel stand, such as a light tripod, the manipulations to make ready for reception should be complete in less than two minutes. Thus a conversation can be started in one direction in less than five minutes if all the apparatus is reasonably ready for operation. If two way conversation is desired it is necessary that each operator have both a receiving and a sending set, and to establish two way communication would require about twice the time for one way communication. After the instruments are properly set up the conversation is carried on exactly as over an ordinary telephone. The messages are spoken into a funnel in front of the operator and the answers are received through the phones clamped to his head.

Under certain circumstances it may be that the sending operator desires to communicate with several stations grouped around his own. All he needs to do is to get his own apparatus ready, aim it at the station with which he wants to speak first. The light beam would call the attention of the receiving operator and he would get his apparatus ready as previously described and would soon be in possession of the message. The sending operator would then turn his apparatus on the second station, rouse his attention and transmit the message. This could be repeated indefinitely until all the stations had received their messages.

#### *Designed for Field Use*

The apparatus was developed with particular attention paid to portability. This means that it had to be both light in weight and sturdy in construction. The sending apparatus of our own crude experimental model weighs six pounds without tripod and acetylene generator. These additional items do not need to weigh much, and total weight of the sending apparatus could perhaps be held to ten pounds. The receiving apparatus without the tripod and batteries also weighs about six pounds. Due to the weight of the radio B batteries, of which there must be three, each of 45 volts, the battery load is likely to run up to near thirty pounds. Thus the total weight of the receiving apparatus including a tripod, three B batteries, one A battery, and one C battery would be in the neighborhood of forty

pounds. It is possible that further developments will enable us to dispense with one B battery and thus lighten the apparatus by eight pounds.

The most important question, however, is not how far the apparatus can be carried but how far the apparatus can carry its messages. To this question we have as yet no definite answer. If the light could be sent out in an absolutely parallel beam the only limit to distance would be atmospheric absorption. But unfortunately the beam spreads and thus dissipates its energy over an ever increasing area. Hence, when the beam reaches the receiving apparatus there is no hope of abstracting from it more than a small fraction of its energy. However, the larger the collecting mirror is, the more energy is collected, and the distance at which messages can be received depends directly on the square root of the area of the collector. Also, the intensity in the beam is inversely proportional to its angle of spread.

#### *Improvements Will Increase Range*

The apparatus with which the application of the principles has been established is quite crude. Particularly can this be said about our sending apparatus. We have under way a much improved gas burner which responds much more effectively to the voice. We have also contemplated several improvements in the receiving set. When completed these changes may extend the range more than ten times over the present values. But the tests so far performed have been run with old apparatus and it is only from these tests we can quote numerical values. With a beam having an angular spread of about seven degrees and with the flame of the sending apparatus adjusted for optimum size as far as could be determined by ear it required a minimum receiving area of 12 square centimeters for intelligible reception when the receiver set was placed at a distance of 1000 feet. Since it is quite easy to improve the optical system so as to make the beam much narrower, and since the receiving mirror would have an area more than a hundred times 12 square centimeters, it should be possible to use our present crude apparatus over distances up to seven miles. Contemplated improvements in both the sending and the receiving apparatus may extend the range to over thirty miles.

Here it is appropriate to pause on the disadvantages of this type of telephone. First, the apparatus sends its energy only in a straight line and confines it within a narrow cone. The re-

# THE BLISTER RUST SITUATION IN IDAHO IN 1932

ERNEST E. HUBERT,

School of Forestry, University of Idaho

It is now twenty-two years since the first introduction of the white pine blister rust into Vancouver, B. C., and about nine years since the first establishment of the rust at widely separated points in the Inland Empire. The first infection on white pine in Idaho can be traced to the year 1923, the infection being discovered five years later. During the period 1928-1930 a number of pine infection centers were found in Idaho and during 1931 a great many more were discovered, bringing the total up to sixty-one. A total of 45 new centers were found in 1931. At the rate of increase noted during the seasons of 1928 to 1931 inclusive, it might be safe to predict that 1932 will disclose somewhere near 100 pine infection centers. The rapidity of spread indicated by the above rate of increase of pine infection centers and the rapid development of the rust on the pines within these centers point to an unusually vigorous invasion of the white pine belt in Idaho. At least there are certain areas such as the one on Long Meadow Creek near Elk River, Idaho and a recently discovered one on Fishhook Creek near Avery, Idaho, which show a very large percentage of trees infected and a large number of cankers per tree.

The Division of Blister Rust Control has found by a preliminary scouting of the Fishhook Creek infection area comprising about 100 acres on the Joe National Forest that approximately 50 per cent of the 25,000 trees on this area show infection. This amount of infection has developed within a period of 8 years, beginning in 1923, the year of original infection. An analysis of the rate at which the number of cankers increased on this area indicates that for every canker found on the area in 1931 there will likely be found 3,000 cankers in 1932. The ratio of canker increase is not so great on the other pine infection areas but the fact must be borne in mind that the 60 centers already located are but a small percentage (perhaps 1 per cent) of the actual number of centers scattered over many miles of rugged territory.

The usual speed at which rust has worked in the Idaho region during this period is startling, particularly so when we find that some of the years within this period were noted for subnormal precipitation. Another interesting observation

made by E. L. Joy and his co-workers indicates that the Indian currant (*R. petiolare*) is the host of greatest importance in initiating the infection centers and that the other species of *Ribes* are responsible for a considerable amount of spread from the infection centers. A single ascospore carried in from a distant point may readily cause infection on the Indian currant. The intensification of the disease on this stream type of *Ribes* progresses rapidly and infection soon spreads to the upland *Ribes*. By the time the telial stage of the rust is produced the infection has spread far up the slopes on *Ribes* other than *R. petiolare*. It is evident, therefore, that these scattered upland *Ribes* unquestionably play a prominent part in spreading the infection to a large number of pines over a large area. Given a concentration of heavily infected stream type *Ribes* with a scattering of upland *Ribes* on the slopes above and the scene is laid for the rapid and extensive spread of the disease from creek bottom to ridge.

### *Moisture Conditions Influence Spread*

Another interesting observation regarding the spread of the rust in Idaho indicates that the rust is found developing best in areas where moisture conditions are not very favorable and where eddies occur in the air currents. With the exception of the Newman Lake area in eastern Washington, all of the pine infection centers seem to occur in areas which are classified as optimal sites for western white pine. In the Newman Lake area where white pine is marginal to its best site the influence of a dense growth of trees and shrubs, the presence of swampy areas and a large body of water no doubt have direct bearing upon the entrance and establishment of the rust. Again, all of the larger pine infection centers appear to be located at or near the juncture of two streams where the air currents form a settling pool or eddy. Here the wind-borne spores may encounter a natural settling basin and at the same time find environmental conditions favorable for germination.

### *Disease Becoming Widespread*

Idaho is not the only center of rust activity, for the disease is spreading rapidly throughout the coastal region of Washington and Oregon and its southern progress is now marked at a point in Oregon within 50 miles of the California border.

The finding of the rust in California is but a question of time and following its invasion of that state will come the battle for the protection of the sugar pine stands.

The deductions which may be drawn from a study of rust behavior in Idaho and adjoining areas point to but one conclusion and that is the urgent need for the acceleration of the control program. In carrying out this program of attack, reasonable attention should be given to the removal of the upland species of *Ribes* in view of their capacity to spread the rust.

In view of the fact that as yet we have no definite data to guide us in determining the amount of *Ribes* live stem which may safely be left or overlooked on a control area in Idaho, it would be better to aim at a complete removal of the *Ribes* population, and err on the side of safety rather than on the side of low control cost. The word "aim" is used advisedly, for it is realized that it is not humanly possible to remove every *Ribes* plant, large and small, from a control area.

Nevertheless, the effort should be made to attempt complete removal until the time when research tells us that we can safely leave a certain amount of *Ribes* live stem per acre.

#### *Progress Made in Control*

Prior to 1928 all control work on the white pine blister rust project was carried out by the Division of Blister Rust Control as part of the experimental local control plan. The first extensive control operation in which a number of agencies cooperated was begun in 1928. In that year federal, state, and private agencies pooled their available funds and began fighting the rust on a large scale within the more valuable white pine stands.

During 1931 a total of 176,000 acres of timber land were partially or totally protected from the rust through cooperative effort. With a total of 415,000 acres worked over for the removal of *Ribes* prior to 1931, this brings the total acreage of worked stream and upland types up to 591,000 acres. On the basis of a ten year period, the time needed for a clean-up of *Ribes* on the valuable white pine areas comprising three million acres, we are somewhat short of the 300,000 worked acres per year needed to prevent serious damage to the pines.

Most of the eradication work has been carried out on the Clearwater Timber Protective Association, the Potlatch Timber Protective Association

and the Clearwater National Forest areas. A considerable acreage of timberland owned by the state of Idaho has been worked over for the removal of *Ribes* plants during the past few years and additional acreage will be treated in 1932.

#### *White Pine Nursery Stock Protected*

In the Montana region a very intensive control area has been laid out for a radius of a mile around the Forest Service nursery at Haugan where thousands of white pine seedlings are grown each year for use on the plantation areas in the Montana and Idaho forests. Another nursery in which considerable quantities of white pine are grown is the School of Forestry nursery and arboretum at Moscow, Idaho, which has been gone over regularly for the past few years and the nursery as well as a wide protection zone surrounding it has been freed of *Ribes*.

During the past two years new methods of attack have evolved from the practical field experience and field investigations and from the research laboratories. Many improvements have been made in the use of crews on an area, in the type of equipment used in the spraying program, and in the methods of checking results. New chemicals and concentrations have been tested and a study made of the effect on the *Ribes* plants of various concentrations of chemicals applied to the roots in the soil. An interesting and promising method for eradicating *Ribes* on certain stream bottom lands has been proposed by C. H. Johnson, blister rust state leader for Montana. The method involves the use of a bulldozer type of tractor in scraping off and piling up in windrows for subsequent burning, all refuse including brush and *Ribes* bushes. The area thus cleared is to be sown to suitable forage grasses and maintained for grazing purposes. It is claimed that this method is practicable and within reasonable cost. For wide, flat creek bottoms it should prove useful.

The rapid spread of the rust to pine in Idaho has greatly stimulated interest in studies on the life history of the rust and on the influencing factors. The part which climate and weather play in the spread and development of the blister rust fungus has received some attention, as has also the function of the pycnial stage in its relation to the other stages of the parasite. Some interest has also been shown in the study of one of the parasites of the rust, the purple mold, *Tuberculina maxima*, which is said to suppress aecial production in certain regions of Europe where blister rust is common.



## THE REVEREND RICHARD T. "DICK" FERRELL

When "Dick" Ferrell decided to give up his prospects for a championship career in the manly art of leather-pushing, his opponents were not the only fortunate ones. The principal benefactors by his early decision turned out to be the thousands of woodsmen he meets in the timbered regions of the Inland Empire of the Pacific Northwest from Montana through Northern Idaho and Washington to the Cascade Mountains.

Born 45 years ago in Elizabethtown, a mining community in southern Illinois, the son of a blacksmith, "Dick" Ferrell soon showed signs of having all the physical attributes of a world's champion pugilist. His childhood playmates were children of miners and, although his early boyhood divulges some Sunday school experience, it was not until many years later it appeared to "take". Even when "Dick" was small he used to help his father shoe mules for the mine work. Such work rendered "Dick" strong in body and tense in muscle. In his community the "men of the town" were victors in athletic bouts or prize-fights. "Dick" always saw the contests and it was not long until he was leather-pushing. He had the necessary physique and soon came to the front—was very successful. He became "a man of the town"—in fact, won the welterweight championship of southern Illinois, and had every prospect of a real topnotcher. Herrin and Cairo, Illinois, recognized him and Chicago began to learn of him. It looked as though he had found his niche in the world and his success seemed to be assured.

However, there were times of depression and often dissatisfaction followed. Invited to Chicago, he was well received, gave a splendid account of himself so that a match with "Dick" as one of the principals was arranged in Memphis, Tennessee. That match fell through. Dick was disappointed, and then—

He was reviewing his life. His childhood Sunday school experience returned to him. He strayed into church, perhaps to soothe his disappointment, and found a seat in what he called "the peanut gallery".

But as he listened to the preacher he began dimly to see that here was a ring, too; a ring where he

Editor's Note: Here is a short biography of an individual who has become a part of the lumber industry of the Pacific Northwest. From a prize-fighter to an evangelist may be a long step, but Rev. Richard T. Ferrell was equal to the occasion. The editor has had the opportunity of attending services in logging camps conducted by the Rev. Ferrell and knows that "Dick" speaks the language of the lumberjacks which no doubt accounts for his splendid and unusual success.

would need bone and sinew and muscle and a stout heart if he were to finish on his feet as he did in the squared ring.

That day marks an important event in "Dick's" life but a far more important one to the lumberjacks of the northwest. That day he took the advice of the minister to whom he listened and began his present career—a career in a ring where his own soul and other men's souls were at stake.

He was advised to prepare for a life among men in the woods and mills. Schooling in this direction was imperative if he were to mingle with those who were familiar with the ideals he now cherished. Soon, however, "Dick" emerged as Rev. Richard T. Ferrell, although to the lumberjacks he is just plain "Dick". He is their true and loyal friend, their confidential adviser.

One day, long after he had become an evangelist, he conducted services in his home town of Her-



*Richard T. Ferrell*

rin, Illinois. The church was packed. The whole town turned out to hear "Dick" preach. After the services one of his old acquaintances approached "Dick" and said, "Dick, I've paid three dollars lots of times to see you in a prize fight and you always gave me a thrill, but you never thrilled me then as you did today."

"Dick" stands always ready to help "his boys" in the woods, and he does not stop only at logging

*(Continued on page 57)*

# IDAHO STATE FORESTER ELECTED PRESIDENT NATIONAL ASSOCIATION

*Mr. Ben E. Bush, Class of 1903, Honored*

Mr. Ben E. Bush, Idaho State Forester, residing in Moscow, the home of his alma mater, was elected president of the National Association of State Foresters during their annual convention held in Florida last November. Thirty-three of the state foresters from the 37 states having such officers were in attendance at this national convention which extended over a period of four days.

The National Association of State Foresters was organized in December, 1920, and practically every state which has any appreciable amount of timber, including the Territory of Hawaii, is now represented. Meetings have been held each year since that time in various parts of the United States. The principal part of the meeting is taken up with field trips during the day and business meetings in the evenings.

Mr. Bush has written the following account of this last national convention:—"The 1931 meeting was held in Georgia and Florida last November. Mr. E. O. Siecke, State Forester of Texas and president of the Association of State Foresters for 1931; Mr. Lufburrow, State Forester of Georgia; and Mr. Baker, State Forester of Florida, arranged the program. The meeting started with breakfast at the DeSoto Hotel in Savannah, Georgia. After breakfast we boarded a large bus and were driven some thirty minutes through Savannah. During this sight seeing trip we visited, on invitation, the Hercules Powder Company's plant near Brunswick where rosin and turpentine were being manufactured on a large scale from pine stumps. We also visited the Georgia Creosoting Company's plant where railroad ties of native softwoods were being given a preservative treatment. We remained all night at Waycross, Georgia, and held a business meeting that evening. We listened to a very interesting talk from Professor Paul Chapman, Director of Vocational Education in Georgia; also, another from C. S. Judd, Territorial Forester of Hawaii.

"The following day we visited several turpentine stills between Waycross and Homerville, Georgia. The greater part of the timber in this district is slash pine. We also watched the Hercules Powder Company's stump pulling operations. Near Fargo, Georgia, we drove through the Superior Pine Products Company's two hundred twenty-five thousand acre tract of mostly longleaf pine. We

arrived at Jacksonville, Florida, late that evening.

## *Washington Memorial Tree Planted*

"We left Jacksonville early in the morning for Ocala, Florida. Enroute we stopped at the Experimental Division of the Osceola National Forest where experiments on the production of naval stores were being conducted. At this place the Government is equipping a very elaborate station to determine the best methods of producing naval stores. We passed through large areas of both slash and longleaf pine, two species producing the gum which is made into turpentine and rosin. On invitation from the University of Florida at Gainesville, we planted a George Washington Bicentennial Memorial tree. Major-General Smedley



*Ben E. Bush*

D. Butler was in the vicinity at that time and was also invited to assist in this planting. The university cadets, some 1800 strong, were formed on the parade ground and stood at attention during the tree planting ceremony.

"We arrived at Ocala on the evening of November 18, where the principal business session was held. At this time Fred Morrell, Head of the

(Continued on page 54)

# THE DEPARTMENT OF FORESTRY AT THE SOUTHERN BRANCH

CHARLES M. GENAUX,  
Professor of Forestry

The department of forestry at the Southern Branch of the University of Idaho, Pocatello, was created at the beginning of the academic year 1931-32, in response to an insistent demand for forestry instruction. The nucleus of a student body was already in existence, fourteen students having been enrolled in forestry in 1930-31. These men were seriously handicapped in not being able to take any of the prescribed work in forestry during their freshman year, but with the organization of the department they have been able to make up some of the deficiencies this year.

The department is temporarily housed in the northeast corner of the basement of the old administration building. One large room serves as a laboratory, classroom, and office, while storage and locker space is available in adjoining rooms. Laboratory supplies and apparatus are being secured as rapidly as possible, though it is difficult

heretofore been available for study, are being catalogued and shelved for use.

Plans are under way for the establishment of an arboretum this spring, in order to provide a permanent source of living material for dendrological study. The arboretum will also serve as a laboratory in which the less commonly planted species can be studied, to determine their suitability for local use. Attempts will be made to bring together here, a collection of all the woody species indigenous to Idaho, as well as all exotics that may be expected to grow successfully.

### *National Forests Readily Accessible*

Region Four of the Forest Service has generously offered to cooperate to the fullest possible extent in permitting the use of nearby national forest areas for purposes of student field instruction. The full import of this is not realized by the casual visitor to Pocatello, yet the Cache, Caribou, Targhee, and to a less extent, the Minidoka National Forests are all within easy driving distance of the school. It is expected that much of the field work will be conducted on the Targhee, due to the diversity of the forest operations in progress there.

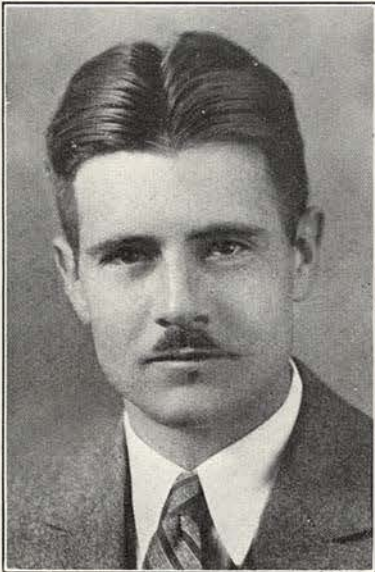
An herbarium to contain specimens of all the commercial timber producing species of the United States and Alaska, as well as any others that may be obtained, has been started. Samples of about 100 species were contributed by the department of forestry and range of the Utah Agricultural College, early this year. Many others have been obtained in and around Pocatello, and it is expected that several hundred specimens will be added during the coming summer.

### *Curricula Will be Balanced*

The curricula outlined for forestry students at the Southern Branch are essentially the same as those for the junior college division at Moscow. So far as possible, the various courses cover exactly the same ground that they cover at Moscow.

As previously mentioned, fourteen students were already enrolled as foresters here, during the last college year. The enrollment increased to thirty-six students for the first semester of this year. Due principally to financial difficulties, some of these students left the University at mid-year. The

(Continued on page 54)



*Charles M. Genaux*

to provide laboratory facilities the first year for some thirty or thirty-five students.

### *Library to be Built Up*

Much progress has been made in the acquisition of forestry literature for the library, which, until the establishment of the department, was quite inadequate. Government publications that have not

## CLASS OF 1932



ANDREWS



COONROD



FIFIELD



MORGANROTH



PECHANEC



TAYLOR



AUST



DODD



JOHNSON



MOSS



SWAYNE

MILTON DALE ANDREWS

(General Forestry)

North Central High School, Spokane  
Whitman College, Walla Walla, Wash.  
Whitworth College, Spokane

PAUL WILLIAM AUST

(General Forestry)

Lewis and Clark High School, Spokane  
Publicity Manager Associated Foresters, 3

MELVIN ARTHUR COONROD

(General Forestry)

Boise High School, Idaho

JACK BRUCE DODD

(General Forestry)

Lewis and Clark High School, Spokane

CHARLES EDWARD FIFIELD

(Range Management)

Swift Current High School, Saskatchewan  
University of Detroit

Sec'y.-Treas. Associated Foresters, 4

ROBERT BAILEY JOHNSON

(Range Management)

Silkhope High School, North Carolina

EARL S. MORGANROTH

(General Forestry)

Perkam High School, Minn.

VIRGIL DANIEL MOSS

(General Forestry)

Fairfield High School, Wash.

JOSEPH FRANK PECHANEC

(Range Management)

Nampa High School, Idaho

President Associated Foresters, 4

ALLEN PARKE SWAYNE

(General Forestry)

Melba High School, Idaho

CYPRIAN D. N. TAYLOR

(Logging Engineering)

Nelson High School, British Columbia

STANLEY C. CLARKE

(General Forestry)

Jefferson High School, Chicago  
University of Illinois  
Northwestern University  
Xi Sigma Pi

FLOYD M. COSSITT

(General Forestry)

Class of 1924

Council High School, Idaho  
Xi Sigma Pi

## GRADUATE STUDENTS



HEPHER



MAKARA



MILLER



PIERSON



STOUFFER

### WILLIAM STANLEY HEPHER

*Nelson High School, British Columbia*  
*University of Idaho, B.S. (For.) 1931*  
 Xi Sigma Pi

Thesis title for the degree, Master of Science in Forestry: "Pulping of Lowland White Fir (*Abies grandis*) Wood by Ammonium Sulphite".

### FRANK RUSSELL MAKARA

*DeWitt Clinton High School, New York City*  
*New York State College of Forestry, B.S.*  
*(For.) 1932*  
 Xi Sigma Pi

Thesis title for the degree, Master of Science in Forestry: "A Comparative Study of Ethylene Glycol Lignin with the Residual Lignin in Lowland White Fir (*Abies grandis*), and the Investigation of Possible Commercial Lignin-Condensation Products".

### DOUGLAS REED MILLER

*Brownsville High School, Oregon*

*Oregon State College, B.S. (For.) 1928*

Xi Sigma Pi

Thesis title for the degree, Master of Science in Forestry: "A Study of the Germination of Ribes Seeds".

### ROYALE K. PIERSON

*Sheridan High School, Iowa*  
*University of Montana, B.A. 1930*  
 Xi Sigma Pi

Thesis title for the degree, Master of Science in Forestry: "The function of the Pycniospore of the White Pine Blister Rust Fungus".

### DAVID JAMES STOUFFER

*Marlette High School, Michigan*  
*Ferris Institute, Big Rapids, Michigan*  
*Michigan State College, B.S. (For.) 1926*  
 Xi Sigma Pi

Thesis title for the degree, Master of Science in Forestry: "Fungi Occurring on White Pine Blister Rust".

### THE OFFER OF THE COLLEGE

To be at home in all lands and all ages; to count nature a familiar acquaintance and art an intimate friend; to gain a standard for the appreciation of other men's work and the criticism of your own; to carry the keys of the world's library in your pocket; to make hosts of friends among the men of your own age who are to be leaders in all walks of life; to lose yourself in generous enthusiasms and cooperate with others for common ends; to learn manners from students who are gentlemen and form character under professors who are Christians,—*This is the offer of the college for the best four years of your life.*

### REGION ONE OFFICER SPEAKS TO FORESTERS

Mr. John B. Taylor, Region One, U. S. Forest Service, gave a series of lectures to students of the Idaho School of Forestry during his day visit to Moscow on March 1, 1932. His lectures were on job analysis and fire protection, and were well received by the students who packed themselves in the assembly room of Morrill Hall to hear him. Mr. Taylor was on the faculty in 1920-21. He reported a great number of campus changes in the last decade and was especially pleased to see the growth in students, faculty, and equipment the Idaho School of Forestry has made.

HERE

AND

THERE



FIRE FINDING



HOME SWEET HOME



C. JAMES' CROWNEST



FIRE GUARD FIELD TRIP



FROSH WIN THREE-LEGGED RACE



FRESHMEN WINNERS OF BARBECUE



SOPHS TUG-O-WAR TEAM



DEAN AND MRS. MILLER LEAVE FOR EUROPE



TREE PLANTING FIELD TRIP

# THE ASSOCIATED FORESTERS

JOSEPH F. PECHANEC, '32

The current school year will go down in Idaho Associated Foresters' history as one of outstanding achievements due to the splendid cooperation and enthusiasm registered among its members.

From the opening session which was the Annual Bonfire meeting held shortly after school opened last September until the Annual Barbecue just before the University closed this spring, the spirit prevailing among the group was a predominating feature.

Every student and faculty member of the School

lecture notes. And the jokes and stories are always most entertaining.

This year an extra banquet was arranged, it being the surprise party for our Dean and Mrs. Miller, also mentioned elsewhere in *The Idaho Forester*. Engineers' Day, held alternate years, was a big day for the Associated Foresters this year when on May 7 they "stole the show" from cooperating departments, namely the School of Mines and College of Engineering.

The morning of Campus Day, May 12, found



*The Associated Foresters*

of Forestry is eligible for membership in the Associated Foresters. During the regular monthly meetings held in the evenings, the group invites some outside forester to give a talk on some phase of forestry so that the gatherings are not confined entirely to business affairs. Miscellaneous meetings are called as occasion demands.

### *Foresters Enjoy Banquet*

The Foresters' Ball, the only all campus student affair sponsored by the foresters is a prominent social event on the University calendar. The Annual Banquet, described in detail elsewhere in this publication has come to be one of the most interesting functions from the forester's viewpoint for it means lots of eats and an opportunity to hear outstanding foresters called in for the occasion without the necessity of taking detailed

the foresters clad in field clothes and "dressing up" the Arboretum in great style for spring traffic. In the afternoon the Barbecue was held and this traditional affair will long be remembered by the Idaho Foresters.

### *Foresters Select Pin*

In years gone by considerable discussion has been given to a specially designed pin for the Idaho Associated Foresters but this year the discussion turned into a reality. The pin designed is that of a block "I" set on an evergreen tree and the attractive pin can be seen on the lapel of practically every forester.

The officers for the past year have been:

President ..... Joseph F. Pechanec  
Vice-President ..... Philip Lord  
Secretary-Treasurer ..... Charles Fifield  
Ranger ..... John Cook

# JUNIOR

# FIELD

# TRIP



VISIT TO "BULL PEN"



MR. E.C. OLSON



NOTES ON WEATHER INSTRUMENTS



SLUICING LOGS ON BIG CREEK



LOTS OF FISH - BUT NO FISHING



EXPERIMENT STATION GROUNDS



CAPT. MARKHAMS 'TYEE'



JUNIORS TAKE CHARGE OF THE LANDING



ON THE BUSINESS END OF PEAVIES

## NORTHERN ROCKY MOUNTAIN FOREST EXPERIMENT STATION



## YE JUNIOR FIELDE TRIPPE

Trippe Yelle—"Who's holding the sackke."

Trippe Songe—"Piccolo Pete."

Trippe Motto—"I want my bucke'na-half."

Trippe Gamme—"Hyde and Seekke."

Famous Lastte Words—"Stoppe blowing that whystle."

Ye Junior Forestrie Classe left ye University of Idaho Kampus a-la-Universsffe Trucke plus one car at 9 o'clock Sunday Morning, May 24, 1931, bounde for ye Northern Rocky Mountain Forest Experiment Station at yon Priest River, northern Idaho. In ye party were: Leonard Anderson, Paul Aust, Harold Brown, Melvin Coonrod, Warren Ensign, Charles Fifield, Jesse Hopkins, Philip Lord, Paul Martin, Earl Morganroth, Joseph Pechanec, Horace Richards, Allen Swayne, and C. N. Taylor, accompanied by George Jemison and A. M. Sowder.

Going thru Spokane with cut-outte open, Sir Coonrod and Sir Morganroth didst complain about ye fresh strawberry sundae which tossed about internally much to owner's apparent delightte. However, lunch without tea at Diamond Lake proved invigorating and on to bunke house at Station where we didst imbibe in fresh creosotte pura aqua which proved a tonic to studentte systems & caused Sir Anderson to engage in catte-and-dogge fightte with hymselffe.

Sir "Pal" Fifield—our invalid, didst umpyre at ye baseballe gamme but his eyesight didst needst attention for ye score ended 13 to 12 in favor of the winners. And so our prayers and evening blessings interrupted by determined efforts of soloist Sir Hopkins to inhale ye bed covers.

*Monday, May 25*

Arose and ye morning dip in ye creosotte water, and upon opening our eyes espied ye flagge pole from from which suspended in mid air nothing other than ye comforter which last nightte rested upon ye bedde of Sir "Man Mountain Paul Bunyan" Martin. A strange flagge to be thus floating at ½ maste but a jolly well breakfast of hoggebelle and hen fruitte which followed the sunkyst orange to agitate the gastric juice in midshyps.

Ye fyre instruments were then explained to us & upon mention of the value of red hair for ye recording hygrometers, imagine how Sir Taylor's head should become abnormal and whereupon he threatened to wear nightte cappe to bedde for protection from thieves.

At ye inflammability station Sir John O. Thomp-

son didst point out one hen grouse at syde of windfall squatting over future grouses. After briefe climbe (of three hours) to South Ridge, we didst descend but took notes on sylph like tumble and roll of Sir "Man Mountain" Martin down hille side and his rebuttal of "The last sommersaultte was extree." And so to evening repast and daily exercise of baseballe at which didst notice Sir Hopkins bare footte, romping on ye gravel after Sir Ball, imitating sewing machine which runs in one place, butte Sir "Pal" Fifield didst improve in eyesight & gamme ended 27 to 15 to advantage of previous night's losers.

*Tuesday, May 26*

Arose early to discover Sir Aust exhybited unusual bravery during nightte when outside of bunkehouse he faced Sir Bear, bare handed. Didst observe Sir Aust oufranne Sir Bear for Sir Aust had fym footing whilse Sir Bear slypped. On & about Ye Station Grounds under escortshyp of Sir Thompson whilst did absorb knowledge on construction, maintenance and H<sub>2</sub>O supply. Thence to experimental cutting plots of several years standing where we didst learn that unusual thyngs cause forest fyres and a square device for equines is valuable.

And so to bedde amidst Sir Ensign's and Sir Hopkins' duct and barrage of brickbats, guffaws, and pine cones.

*Wednesday, May 27*

On way to breakfastte didst wonder where Sir Martin abided ye nightte since hys absence from ye bunke house keenly felte. However, didst spy his bed suspended from Ye Flagge Pole but no evidence of life contained therein. Butte such fears were all for naught for the breakfastte table had the pleasure of his genial company.

Away in ye Chariot to Big Creek to be met by Sir E. C. Olson who conducted us over logging operation excursion of Diamond Match Company Sale and thence to fine logging camp dinner after which we didst learn all about manipulating horsehides, peaveys, stamp hammers, skippers, and sluicing of logs in ye flume. Thence we were taken for a "ryde" a-la-foote up skidding trails and hearde of argument between Sir Coonrod and Sir George Yarneau, camp foreman, as to merits of heavy equines and whereupon Sir Coonrod discovered he had been "dreaming." And so to campe and supper and bedde.

*Thursday, May 28*

A dusty ride a-la-Chariot transported us to Watson Mountain under guidance of Sir Floyd M. Cossitt who explained ye management plans, methods of handling hemlock stands, proper slash disposal & ye like—including spawning grounds of superglobaflurous numbers of ye cutte-throat troutte which duly caused our mouths to H<sub>2</sub>O. However, backe to campe and to ye grand ole' bathyng tub of Dame Nature whereupon we were duly refreshed.

*Friday, May 29*

In our prancing Chariot through ye clouds of dustte to be shown by Sir Cossitt how to mark ye white pine trees for selling & also fine points demonstrated on ye brush piling. More dust, more swimming, more baseballe and our night duet changed to a trio of Sir Hopkins, basse; Sir Ensign, contraltoe; and Sir Anderson on ye whystling piccolo. And so to sleep thinking about ye reports, whilst humidity of ye fitch becometh rich.

*Saturday, May 30*

On our way amynd the dusty road & sweet strains supplied by ye Nasal Sextet. Among other projects for this day Sir Vanairsdale of Falls Ranger Station furnished information on ye extraction of seed from whyte pyne cones supplied by nearby ranchers for 75 cents ye sacke. Ye tiny pine squirrels caches were robbed for this phase of forestry which seemed unjust. Ye swyming hole & virgyn stands of whyskers were clear-cut from faces whose skyns had not seen daylightte for a weekke. And so to bed whilst strains of music are going forth at Coolin and ye fitch humidity still potent as ever.

*Sunday, May 31*

Up to Priest Lake where we boarded "Tyee" of ye Priest Lake Fleet manned by Sir Captain Markham, who reminded us that ye whystle was not to be tooted except with reverence. Our sailor member, Sir Hopkins piloted ye shippe so that he felt at home on ye water. And so as we cast anchor amid more toots we wondered who was playing ye piccolo. Back to ye station where ye rain storm greeted us.

*Monday, June 1*

Up Benton Creek to ye plots thinned by Sir Borggreve et al. thence to traps which caught ye flyttering seeds and we would that it caught the mosquito instead. To Non-Indigenous Plots and then-after tea—to Sir Knoll Plot to count ye

tiny seedlings. Supper after a jumble of beds & bedding in ye buake house and a quiet evening fyghting ye mosquito & scratching ye byttes. Before retiring didst note a fyre on yon ridge and hoped it kame no nearer.

*Tuesday, June 2*

After ye Hoggebelle and Egge drew anchor for thinning plots where we didst playe with ye basal area and ye axe much to delightte of all konserned for it put us in battling trimme for ye gamme of baseballe. Sir Ensign confined to ye bunke with ye tonsilytis. Slightte leake of rain clouds much to delightte of fyre fighters. On return to Campe didst observe Sir Swayne in huddle over letter he received.

*Wednesday, June 3*

Thinning theories were changed to loves labour not lostte in working on ye plots wyth honors for the biggest hande blysters seemed divided. Sir Hopkins—our "snoring pilot"—hied for military duty at ye Boise training campe whilst we struggled over ye bar diagrams and reports much to our delightte?

In Evening, Sir "Gump" Anderson didst take ye pals for ride and we didst learn how to play ye hyde and seek whilst Sir Anderson didst play piccolo and dicuss Chicago with ye neighbors. And so to bedde whilst Sir Fifield didst write to his lady friend(s) and Sir Earle of Morganroth to his Sir Madam Boss.

*Thursday, June 4*

Didst aryse for breakfastte and depart early for Big Creek where Sir Olson didst indicate a "forty" for cruising purposes and seven kinds of desert for dinner. Thence more tymber measuring and backe to campe for gunny then into huddle with reports. Upon retiring didst find mysellaneous items in bedde and noted Sir Warren Ensign's absence because of Sir Tonsilytis.

*Friday, June 5*

Up to packke our things and after ye breakfast of Hoggebelle and trimmings didst visit ye thinning plots, thence to dynner and all aboard S. O. S. for ye Kampus of Sir Universitye of Idaho at Moscowa.

## WHICH SHOULD IT BE?

The Blackfoot National Forest and the Flathead National Forest are located in Region One of the U. S. Forest Service. In case these two forests were consolidated, should the resulting forest be named the Flatfeet or . . . ?

## Obituaries

### CHARLES HOUSTON SHATTUCK

Charles Houston Shattuck, forester, botanist, educator and author, passed away August 31, 1931, at his home in Idaho Falls, Idaho. Dr. Shattuck was born November 21, 1867 in Vandalia, Missouri, of New England parentage. His early life was filled with a broad and thorough training which so well fitted him for the busy life to follow. After completing his high school education he was graduated from the Watson Seminary of Ashley, Missouri; the Zanerian Art College, Columbus; and Campbell College, Holton, Kansas from which latter institution he received the Bachelor of Science and the Master of Science degrees in 1894 and 1898, respectively. The Bachelor of Arts degree was conferred upon him in 1903 from the University of Chicago and Master of Science from this same institution in 1905. He received the degree, Doctor of Philosophy, *magna cum laude*, majoring in botany and forest ecology from the University of Chicago in 1908. Further forestry study was made under Dr. C. A. Schenck of the Biltmore Forest School. This scholastic training, however, did not terminate Dr. Shattuck's education for even to his death he was always an eager student.

Dr. Shattuck held many responsible educational positions in various institutions. While on the University of Idaho Campus from 1909 to 1917 he was professor of forestry and head of the Department of Forestry and for the period of 1914 to 1917, he was Dean of the College of Letters

and Science. From 1917 to 1919 he served the University of California as Professor of Forestry in charge of grazing. In 1919 an attractive offer from the business world induced him to leave the educational field of forestry to become Secretary and Manager of the Mountain States Building and Loan Association at Idaho Falls which position he held to the last.

Dr. Shattuck was author of many publications on forestry subjects and the high type of research work he performed won him membership in several scientific societies.

His keen interest in tree planting and forestry in general which he maintained to the end was manifested in the countless projects he instituted not only on his own residential grounds and in his own community but in the many sections of southern Idaho where his assistance was requested. The Arboretum on the University of Idaho Campus was planned and arranged by Dr. Shattuck. The results of his untiring efforts in this behalf are immeasurable.

Dr. Shattuck's work in molding character among the younger generations in Idaho Falls, especially the Boy Scouts of America, will be reflected in this community for many years to come.

His loss is not only the loss of his community, but a loss reflected the length and breadth of the land, and the thousands of trees he has planted throughout the country are monuments to his glorious and useful life.

### CLYDE E. KNOUF

Clyde E. Knouf, one of the most prominent characters in lumbering circles of the Pacific Coast, passed away in LaGrande, Oregon, on March 28, 1932. Death resulted from injuries sustained several months previous when he was injured in a truck accident.

A former lumberman of Region One, U. S. Forest Service, he became supervisor in 1924 of all scalers for the Weyerhaeuser interests on the Pacific Coast, which position

he held till his death. Mr. Knouf was an outstanding authority on log scaling in the west and was an inspiration to all with whom he came in contact. His genial company and generous contributions to lumber trade journals will be greatly missed by the entire industry and cannot be replaced. Mr. Knouf's devotion to duty and loyalty to his employer were traits he possessed to a very high degree.

## SIGURD A. HOFSLUND

Sigurd A. Hofslund, prominent lumberman of the Inland Empire, died November 29, 1931, at his home in Coeur d'Alene, Idaho, at the age of 48.

Mr. Hofslund came to Idaho from Wisconsin a quarter of a century ago. His first position in the western lumber industry was that of lumber piler for the Blackwell

Lumber Company, Coeur d'Alene. His capability and outstanding personality were not overlooked for his promotions were frequent. In 1919 he was made General Manager of his company, which position he filled to the last. Mr. Hofslund was a willing worker in civic affairs, and always a fair and just counselor in business affairs.

## CAMPUS TREE IS CLASS MEMORIAL



Nationally known characters have shown their interest in tree planting when in 1901, the Douglas fir tree shown in the background of the accompanying picture, was planted as a University of Idaho class memorial. The tree was scarcely as tall as any individual shown in the picture but now, 31 years later, it is fully fifty feet high and is

one of the most attractive trees on the University of Idaho Campus. Reading from left to right: Dr. Carroll L. Smith; Mrs. Lucille Fisher Sinclair; G. P. Mix, Lieutenant-Governor of Idaho; Homer David; Mrs. Minnie G. Marcy; and U. S. Congressman Burton L. French.

## ALUMNUS VISITS HIS ALMA MATER

Harry E. Malmsten, '17, now assistant professor of forestry at the University of California, at Berkeley, visited the Idaho School of Forestry Saturday, July 18, 1931. It has been many years

since Mr. Malmsten visited his alma mater and needless to say his visit was greatly appreciated. He expressed great surprise on the changes which have taken place over the campus and stated however, one landmark he had no trouble in finding was his former boarding place.

# XI SIGMA PI

CORLAND L. JAMES, '33

LIBRARY  
UNIVERSITY OF IDAHO  
MOSCOW

It was predicted by the founders of Xi Sigma Pi that some day this National honorary forestry fraternity would occupy a pedestal among the best. Due to wise forethought and conservatism this prophesy has been fulfilled for today it is one of the most substantial of honorary fraternities. The profession of forestry, which is still in its infancy in the United States has a willing disciple in Xi Sigma Pi.

Back in the year 1908, a group of forestry students in the College of Forestry at the University of Washington assembled for the specific purpose of devising some means of securing and maintaining a high standard of scholarship in forest education, for the upbuilding of the profession of forestry, and to promote fraternal relations among earnest workers engaged in forest

occupies a very conspicuous place.

In cooperation with the Associated Foresters the Epsilon Chapter secured a silver cup which is presented to the class winning the annual barbecue. The winners also receive the privilege of having their numerals engraved upon the cup. By this means greater interest is created which is the prerequisite for all good work.

This year an old custom was revived from the grave where it has hibernated for several years. It is the custom of making the pledges of the fraternity conspicuous in some manner or means. The pledges of the second semester were required to carry for three days previous to the initiation, a piece of genuine Idaho white pine upon which the Greek letters of the fraternity were burned. The signatures of all the members were



*The Active Members of Epsilon Chapter*

activities. The formation of Xi Sigma Pi was the result of this conference.

Following the policy of stimulating interest in forestry in 1922 the local chapter of Epsilon purchased a bronze tablet of simple and artistic design upon which is engraved each year the name of the member of each class receiving the highest point average for the school year. The plaque has created considerable competition among the forestry students for there is not a student who does not desire to have his name engraved in the "Hall of Fame". Located on a wall in the main hall of the Administration Building the tablet

also placed on the wooden tablet. One day prior to the initiation each neophyte was requested to dress-up in his ordinary field clothes and carry a conspicuous tool or instrument common to the forestry profession.

Frequent banquets and luncheons were held during the year at the Blue Bucket Inn at which papers were presented by members or guests of the fraternity. Discussion was in order following each address. A new policy was adopted this year of inviting all the graduate students of the School of Forestry to these gatherings.

Members initiated this year were: William S.

Gaffney, Corland L. James, Douglas R. Miller, G. Lloyd Hayes, Ralph H. Ahlskog, Kenneth M. Daniels, Charles A. Wellner, Royale K. Pierson, W. Stanley Hefner, and Frank R. Makara.

A delightful informal dance was on the program for Saturday evening, April 23 and a hundred per cent attendance was secured. Card tables were available for those present not wishing to participate in the dancing but this phase of entertainment received little support. The delightful music was too enticing. Several faculty members outside the School of Forestry with their wives were invited as guests.

A most noteworthy project conducted by Epsilon Chapter the past spring was that of establishing a George Washington Bi-Centennial Tree Planting Memorial. The planting took place on Tuesday,

May 3. Each member of the group planted a Colorado blue spruce tree on a most conspicuous site adjacent to the Arboretum. Campus Day, May 12, the members took the opportunity of raking and otherwise preparing the ground for seeding with grass seed and it is expected that this area will be one of the most attractive on the campus within a comparatively few years. Each tree will be tagged with the name of the member who planted the tree and the entire group planting will eventually be designed with a suitable marker commemorating the George Washington Bi-Centennial.

Officers for the year were: George M. Fisher, Forester; William S. Gaffney, Associate Forester; Corland L. James, Secretary and Fiscal Agent; and Floyd L. Otter, Ranger.

## TRACTOR COURSE INSTITUTED

Through the courtesy of Mr. R. E. Mann of the Palouse Tractor and Equipment Company, Pullman, Wash., and the Caterpillar Tractor Company, arrangements were made the past spring to supply the Idaho School of Forestry with a new tractor for instructional purposes to forestry students. Students are being trained in the care and operation of this new "Thirty" tractor according to class rank, the seniors being cared for first. The past spring however, some students down to the sophomore class were instructed in the rudiments of "cat" driving.

As a preliminary to the actual operation of the tractor, the forestry students attended a several day tractor course given by the Caterpillar Tractor Company in cooperation with the Department of Agricultural Engineering. This course was given at the Engineering Shops in Moscow early the past spring and covered all types of tractor operations from the farm to the woods. Many motion picture films were used for this instruction.

Practical experience in skidding logs with the tractor was obtained when the seniors and juniors in logging drove the Caterpillar tractor five miles out to the School Section on the south slope of Moscow Mountain and secured enough timber to put on an unusual logging exhibit for Engineers' Day. Two trips to the hills were required.

Delays enroute proved the ingenuity and resourcefulness of the forestry students for the trips were made not without incident. A mechanical delay was instructive while being stopped by the road commissioner for dragging one end

of the logs over the country road was not so amusing as it might seem especially when the officer flourished a firearm. The students though did not take English courses in logic and argumentation for nothing for the tractor was quickly on its way again and never stopped even for breath until the log cart and logs were safely deposited in the vacant lot behind Morrill Hall.

### *Tractor Has Many Uses*

The School Section was logged over by a private operator during the years 1915 to 1920 so that no commercial timber is now standing but there is much need for tree planting. The tractor with a plow will be used by the students for this purpose. A firebreak will be established around the Section which will give the fire protection students ample and necessary experience in the use of the tractor for this purpose. Roads and trails are to be built on the area when accessory equipment is made available.

The scrubby, defective trees standing here and there on the Section will be removed by the logging students and hauled to the landing thus rendering experience in skidding and loading logs. The tractor will also be utilized in enlarging the small mill pond now practically useless through lack of upkeep. All in all, the tractor will become a vital part of the detailed program mapped out for the improvement of the School Section during the next ten years. All work will be done by forestry students as laboratory exercises under the close supervision of faculty members.

# MILLERS HONORED WITH SURPRISE BANQUET

PAUL AUST, '32

A "bon voyage" banquet given in honor of Dean and Mrs. F. G. Miller at the Blue Bucket Inn, Moscow on Wednesday evening, January 13, proved to be the most enjoyable affair on the Associated Foresters' social calendar. This party was held just two weeks prior to the Millers' departure for Europe where they plan to remain until late summer.

All arrangements for the banquet were carried out with the utmost secrecy so that the honor guests were completely surprised when they were ushered into the large hall where their many friends, standing around banquet tables, began singing a song of greetings.

After partaking of a delightful repast, Toastmaster C. L. Billings, general manager of the Potlatch Forests, Inc., Lewiston, portrayed the assemblage to the Millers as "a group of close friends who wish to make the occasion indicative of their appreciation for the splendid past service the Millers have rendered to the Idaho School of Forestry," and also of their desire to wish the Millers a most enjoyable and profitable trip abroad. Many letters from alumni and friends of Dean and Mrs. Miller who were unable to attend the gathering were read.

Mr. Floyd Otter, faculty member, acting as a representative for the alumni and students, presented the Millers with an appropriate gift.

## *Story on the Dean*

At the invitation of the toastmaster, Mr. C. K. McHarg, Jr., Coeur d'Alene, was asked to recall some gossip about the Dean. He said that although he had been associated with the Dean for ten or twelve years and was intimately acquainted with him, yet he had "nothing" on him because the Dean was always a perfect gentleman. Mr. McHarg stressed the Dean's response to duty and illustrated his point by the following incident: Members of the State Board of Forestry were motoring to Boise with numerous important records which were in the Dean's immediate charge. Enroute, an automobile accident occurred and the papers were scattered everywhere. Mr. McHarg was held under a pile of baggage so was unable to get out of the car, which was lying on its side. The Dean immediately began to gather the strewn records, leaving Mr. McHarg to make the best

of his predicament. Someone in the party mentioned McHarg's situation to the Dean, but the Dean's only concern was to assemble the important documents.

Mr. Ben E. Bush, state forester, expressed his pleasure at being present at this surprise party and wished the Millers a glorious trip abroad.

The toastmaster next introduced Mr. Melvin Bradner of the U. S. Forest Service, Missoula, who extended the best wishes of the personnel of Region One to the Millers for a pleasant voyage.

## *Mrs. Miller Acknowledges Surprise*

Mrs. Miller, the recipient of a beautiful bouquet of flowers from the group, responded cleverly when called upon by the toastmaster. She admitted this party was a complete surprise to her. She said she had looked forward for many years to this trip abroad. While Dean Miller plans to occupy his time seriously, Mrs. Miller declared she is "going to be frivolous, and shall not engage in profound study." She added, "While in Paris I shall acquire a drawl in my accent and when I return, I shall highbrow everyone except the foresters."

## *Dean Miller Gives "Rebuttal"*

Dean Miller, when called upon to say a few words, arose slowly and reached for his watch. He explained this was for two reasons: First to see what time it was, and second to see if anyone of the foresters had taken it, since he had been deceived so completely in regard to the clever way he had been brought to the surprise party.

Mr. McHarg's remarks were disputed when the Dean insisted that nobody had mentioned McHarg's name when "I was looking for the scattered papers while Mr. McHarg was neatly packed beneath the baggage in the upset automobile, and furthermore, Mr. McHarg should have spoken for himself if I happened to step on him a few times in getting out of the jumble."

The Dean expressed his profound appreciation for this surprise party and token. He said that he had long contemplated a trip abroad and was grateful to the University for the plan of giving faculty sabbatical leaves.

The evening's occasion was appropriately closed by a toast to Dean and Mrs. Miller, proposed by Mr. Joseph Pechanec, president of the Associated Foresters.

# SIXTEENTH ANNUAL BANQUET PROGRAM INTERESTING

J. P. BROWN, '33

Some ninety foresters and budding foresters gathered at the Blue Bucket Inn on the evening of March 14 for the sixteenth annual banquet of the Associated Foresters.

The president of the Associated Foresters, Joe Pechanec, read a resolution, which was later signed by each one present, expressing regrets that Dean F. G. Miller could not be present. This was the first banquet that Dean Miller has missed since becoming Dean of the School of Forestry at Idaho. Dean Miller is now in Germany on his sabbatical leave from the University studying European forestry practices.

President Pechanec then turned the meeting over to Mr. Abe Goff, alumnus of the University and Moscow attorney, who though not a forester still retains a warm interest in his Alma Mater. Mr. Goff introduced Mr. O. W. Leuschel, former Idaho student now connected with the Potlatch Forests, Inc., Lewiston, Idaho. Mr. Leuschel spoke on "The Forest Graduate and the Lumber Industry." There are three fields open to the forest graduate—logging, manufacturing, and merchandising, according to Mr. Leuschel. The logging end of the lumber industry fits in fairly well with a forester's education. The day of "bulling" one's way through the woods and producing logs at any cost is past. Instead, a man with a sharp pencil who can cut out all extra, unnecessary expenses in the logging operation, is required. Logging does not promise any soft jobs, but these jobs lay the way for the successful lumberman.

## *Wood Chemistry and Forestry*

The second speaker of the evening was Dr. E. C. Jahn, Associate Professor of the Idaho School of Forestry, who spoke on the subject, "The Relation of Wood Chemistry to Forestry." He said there was no use having a cake without eating it and that there is not any use having a forest unless it is put to use. Wood chemistry is significantly related to forestry. At present other industries have forced wood products into the background. Profitable marketing is most vital to the lumber industry and wood chemistry makes possible the fullest use of the raw material. There is an increased need for the knowledge concerning wood. The knowledge of wood is now only in the "seedling" stage; there is great need for research. The present stage of chemical utilization is low. Wastes at present can be made into

valuable products instead of being burned as refuse. Smaller trees and little used species must and can be used. Lumber should not be considered the sole product of the mill.

## *Forestry Important to China*

The next speaker was Rev. Mr. C. M. Drury, whose subject was "Famine and Forestry in China." Rev. Mr. Drury spent four years in China on missionary work and as a background for his speech used knowledge gained on several hunting trips, and a visit to the School of Forestry at the University of Nanking, which is the only forest school in China. The forests at the headwaters of the rivers have been cut so that no watershed protection is available, and this results in the many floods of today. The floods of China are more dangerous than the Shanghai disaster of this year. In order to control the floods, the hills and mountains of the headwaters of the streams must be forested.

## *Regional Forester on Program*

Major E. W. Kelley, Forester of Region One, and final speaker for the evening, spoke on "Business Management in the National Forest Administration." Major Kelley has been with the Forest Service a quarter of a century, starting as a Ranger. He stated that at present 95% of the activities are handled in the regional office, and two per cent go to the Washington Office. Newspapers have stated that the government authority is three or four thousand miles away, which is not true. Major Kelley declared that "*despotism of custom is the greatest folly to advancement.*" Precedence of custom happens in every line of business. Major Kelley's advice to the future foresters was to try to avoid the pitfall of custom. There is no use kicking unless one can produce something better.

## *Many Activities Engaged In*

The Forest Service deals with some 85 different activities. Its organization is based upon a low unit cost in relative material, money cost, and time. Much search and research is done in organization. All jobs are analyzed. Job analysis is the separating the whole into its part and studying each part.

In summarizing, Major Kelley stated that there must be more application of analysis, and *custom must be put "on the spot."* Good management is in a state of growth and change.



## A REMINISCENCE

"When I arrived at the Idaho School of Forestry in 1921, I was received with a hospitality I can never forget. I was a youngster fresh from high school up in Maine, didn't know anyone west of New York,—had never been away from home before. While I really didn't expect to be scalped by an Indian or plugged by a cow-puncher in the wild and wooly West I did expect to be a stranger among strangers at least. Being of a shy nature rather than a go-getter, I imagined I would either be entirely ignored or possibly hazed within an inch of my life. I was wrong. From the moment Dean F. G. Miller of the School of Forestry greeted me until I reluctantly boarded a train for home at the conclusion of my course, I realized that this talk about western hospitality and good-fellowship is not bunk. I can even forgive the State of California for persistently 'keeping her sunny side up' when I recall the happy days spent at the University of Idaho and thereabouts.

"I hope the students continue the practice of greeting one another with a cheerful 'hello', whether stranger to each other or not. I am no Pollyana or Cheerful Cherub, but believe me that salutation "hello" from young fellows and girls on the Idaho Campus helped me more than anything ever could have during those first homesick days—for I immediately felt at home and felt that I was a part of the institution and made me feel that I was among friends. The other stu-

dents didn't know who I was or from whence I came—they didn't know that I had just \$14.00 in my pocket or that I was mighty darned homesick or that I was in a country as different from my home state of Maine as East is from West, but they accepted me apparently on the strength of the fact that I had chosen the same institution for the same reasons and purpose they had selected it.

"At any rate the students said 'hello' as if they meant it. They didn't mumble the word or 'pull its punch'. They said 'hello' with a feeling that was more eloquent than a book of etiquette, a course in personality development, or a correspondence course in 'how to make folks like you'.

"All of this amounts to nothing I suppose, but it may prove to the fellow who has to read these annual outbursts from the old 'Sons of Idaho' that a little campus hospitality, if but a friendly word, means a lot to the boy who is far from home or who for some other reason comes to the University with a feeling of strangeness.

"I learned a lot about forestry at the University of Idaho and I learned a lot about goodfellowship out there too,—thanks to everyone I knew and most of all to Dean Miller who was and is a 'prince'. (Pardon the word if it lacks dignity—none other expresses just what I mean). You can bet there is a soft spot in my heart for the Idaho School of Forestry and I may as well admit it here and now."—S. F. B.

### SOMETHING TO BE THANKFUL FOR



In these days of stressed economic conditions, especially in the profession of forestry, it is difficult to find anything to be thankful about. However, there is always a bit of sunshine somewhere and this cartoon is published in the hope that it might be the ray of sunshine necessary to

drive away "Old Man Depression". Imagine yourself in the place of one of these natives pulling out stumps of rubber trees for a logging railroad right-of-way or for a forest road or trail. Then thank your lucky stars that you are in the good old United States of America.

## FORESTERS' EXHIBITS ATTRACT ATTENTION

The Associated Foresters of the University of Idaho threw their doors wide open on Saturday, May 7, afternoon and evening, when they conducted exhibits for the benefit of the balance of the University student body, University faculty members, and the hundreds of visitors from Moscow and the Inland Empire who visited the School of Forestry. The Associated Engineers and Associated Miners from the University also joined in to make the Open House for the Campus more complete.

Beginning at the Wood Conversion Laboratory, located adjacent to Morrill Hall, one could see hundreds of materials found in every day use made from wood but which bore no resemblance to wood as found in nature. The graduate students in wood chemistry, Stanley Hefner and Frank Makara, were responsible for this unusual exhibit. Horace Richards and Paul Martin conducted an exhibit in wood products in connection with this show.

The activity in the lot across from the Wood Conversion Laboratory had all the characteristics of a three ring circus for it included a miniature set-up for a forest fire, a 50 foot spar tree to which was attached logging blocks and lines, and a new "Thirty" Caterpillar tractor which seemed to delight in skidding and loading the logs under the direction of the crew of the "Molly Hogan Gyppo Logging Company" and at the signal of a "Tootsie" whistle. The logging "push" was Melvin Coonrod and the riggin' singers consisted of Lloyd Burnett, Philip Lord, Lawrence Newcomb, Merrill Thornber, Paul Ingebretsen, Theo. Raide, Jack Frederic, and T. A. Wright.

The foresters' mail train special composed of a prancing equine with two loaded pack horses for cabooses was maneuvered around the grounds under the skillful direction of William Parks. The throwing of diamond hitches was a feature of Parks' exhibit.

The forest fire refused to crown so little effort was required to control it. Consequently backfiring was not resorted to. However, two portable fire pumps obtained from Spokane were put into action every few minutes to convince the spectators there was no danger of the fire breaking over the lines prepared by the fire protection and silviculture committee. Students comprising this committee were Lloyd Burnett, chairman, Merton Kuhn, William Parks, Allen Swayne and John Parker.

The miniature forests caused considerable favorable comment. They were placed closer to-

ward Morrill Hall and out of reach of the forest fire. This exhibit included a sleigh haul logging chance, a chute for a summer logging job with pond and flume, and an area devastated by fire. A forest highway which brought into use a miniature bridge was made to border the forests.

The fire finding equipment was located on the green just west of Morrill Hall and the attendants were kept busy explaining the uses of the instruments. An adjacent tent housed all the necessary camping "conveniences" incident to the life of a smokechaser.

Life size signs directed the visitors to the third floor of Morrill Hall where the balance of the foresters' exhibits were arranged. In the large lecture room Allen Swayne was grinding out motion pictures of Caterpillar tractors as they are used in forestry. He reported practically a full house all thru the afternoon and evening in spite of the fact that the movies were not the talking kind.

The forest pathology exhibit was directed by Royale Pierson, who was assisted by Paul Aust and Charles Wellner. Tables in the hall were covered with labeled specimens of fungi. A four foot diameter tree section gave the visitors a chance to guess the number of rings which happened to contain 498. For some unknown reason most people made a "rough guess" of 500.

The range management exhibit conducted by Philip Lord, chairman, John Cook, William Gaffney and Kenneth Daniels, came in for a good deal of favorable comment. Two miniature grazing areas had been prepared and each properly labeled with suitable posters. The forest mensuration exhibit consisted of various field instruments made use of in field work, such as compasses, transits, diameter and height measuring instruments for trees, a relief map, etc. Melvin Coonrod, Ralph Ahlskog, Hume Frayer, Chas. Crawford and Robert Opie were in charge of this exhibit.

The 1932 exhibits are undoubtedly the most complete and interesting the Associated Foresters have ever put on and too much credit cannot be given the group for the efficient and willing way the boys went about preparing their Open House. The publicity for the show was handled by J. P. Brown and the Associated Foresters stole a march on the cooperating departments when they had their performance announced over KHQ radio station in Spokane the day before.

# DO YOU REMEMBER

## MUSINGS OF THE ALUMS

- WHEN comparing the time by our respective watches, I said to Dean Miller, "Oh, Dean, you're slow", and the Dean replied, "Mr. Daniels, I may be slow, but my watch is accurate."
- WHEN Wieschuegel said "that White Pine won't break"?
- WHEN Jimmie Farrell turned in an expense account for "one *birth*—\$2.00" and a professor said, "Well, James, you got off remarkably cheap."
- WHEN "Ike" Doyle was a scholar?
- WHEN somebody nearly caused a riot on the Field Trip at Priest River Experiment Station by calling the cook's drop cakes "sinkers" and thereby causing the cook to raise up in wrath? And again when the cook waved a 3 foot butcher knife over the instructor's head at the cook house at Priest River Experiment Station? As "I recall the incident, I don't believe the instructor was frightened because he never ceased eating. The rest of the class was certainly entertained by the cook's actions and words of appreciation for the name Rex gave his biscuits."
- WHEN Harry Nettleton gave a lecture on careful smoking in the woods and then put his pipe in his pocket and burned up his overcoat and also part of his office records?
- WHEN we went to Priest River on a two weeks Field trip in 1931 where perfect enjoyment held for two weeks?
- WHEN "Ted" Bucklin went to sleep in a botany class while Dr. Gail was fluently discussing Equisetum—and Ted woke up 30 minutes later, jarring the good Doctor out of his boots by shouting "Horsetails" in a clarion voice?
- WHEN "Al" Cochran showed the boys how his Grandfather long ago away back in the "Old Dominion State" escaped from the Indians? How he hit the squaw on the head with a frying pan and then was made to run the gauntlet?
- WHEN we trimmed off one-half of "Gus" Gustafson's moustache in Management class?
- WHEN the "Wobblers" hung out red lanterns on the eaves of their "shack" to call a meeting of the "brethern"?
- WHEN "Doc" Schmitz and his big pipe could be seen wheeling the Schmitz children down Moscow's streets?
- WHEN Burton and Farmer put on the "Black Face" at the forestry Smoker? Everybody thought they were pie-eyed.
- WHEN WAY BACK we started the Arboretum. There was no end to the planting. Herman, Decker, Dipple, Williamson, Parsons, and others certainly qualified as experts.
- WHEN Dean Miller got a quiz paper back that defined a virgin forest as a "forest in which the hand of man has never set foot"?
- WHEN the U. S. Government used to give J. F. and J. R. E. exams?
- WHEN the boys put the bridge spikes in Dr. Haasis' suitcase and then I (Charlie Genaux) helped him carry it 7 or 8 blocks after the boys purposely let him out of the truck so far away from his house?
- WHEN Dr. Shattuck was Dean of the forestry department and the fellows "enjoyed" hiking to the Potlatch hills on field trips?
- WHEN the boys of the 1930 Junior field trip rolled logs in the Diamond mill pond on Big Creek and decided it was better to go swimming? "I'll bet "Ty" Gill does for he was reminded every time we passed a log in water during the following year and a half."
- WHEN Nel T. McCurry, Ex-'13, worked with kid gloves and patent leather shoes when we were establishing plantations in the arboretum back in 1910-11?
- WHEN Dean Miller forgot his Management Class? He never did!
- WHEN George Illichevsky Garin used to review the book for us when called upon by Dean Miller to explain and derive "Formula Number I."?
- WHEN Keene and Langer tore up most of the Arboretum?
- WHEN "Weise" shifted gears on the shay?
- WHEN Prof. Watson described a Swedish bath house?
- WHEN a yearling doe and a spike buck caught "Spike" Gregory in an embarrassing position on the Clearwater log decks, during the management trip in 1926? Oh, yes, he killed the buck, but what a chase!
- WHEN Tyler Gill gave us a sample of log rolling?
- WHEN Ross wanted to cut down that big dead tree (larch), on a silviculture field trip to Moscow Mountain the spring of '25? "
- WHEN Jack Rodner rolled (?) logs at the barbecue in the year '23-'24 in supposed competition with Pugh?

# FOURTH ANNUAL SAW-MILL CONFERENCE

E. C. JAHN\*

Associate Professor of Forestry

The Sawmill Engineering Conference held its fourth annual session on March 24, 25, and 26 at Everett, Washington. This Conference has now become an established annual affair which serves admirably as a medium for the discussion and study of technical problems pertaining to the manufacture of lumber.

The conference at Everett was very well attended in spite of the difficult year for the lumber industry. It is apparent that sawmill engineers and technical men realize the value of the constructive work brought forth in these meetings. It is of course only logical that greater efforts should be put forth during a dull period for the study of improved methods for lumber production and for an improved product.

Delegates who attended the Conference for the first time were very favorably impressed by the serious purpose of the meeting and the scope and nature of the topics discussed. The program was very well balanced and nearly every phase in the process of lumber manufacture was critically analyzed, each by an appointed committee. Informal discussion followed each paper.

The modernization of old sawmill plants was one of the most interesting and important projects featured at the Conference. Available timber supply, continuity of operation, and the markets supplied were factors emphasized in determining the economy of a rebuilding program. Many other important topics such as transportation methods, service to trade, and others were discussed.

The Conference took up for the first time at its Everett meeting a discussion of waste utilization and waste products. Four papers were presented on this subject. They were, "Inventory of Sawmill Waste and Its Present Utilization" by J. Elton Loderwick, "Sawmill waste and Fuel" by Roy Huffman, "Briquettes from Sawmill Waste" by R. T. Bowling, and "Pulp and Chemical Products from Sawmill Waste" by E. C. Jahn. It was the hope of the Committee on Waste Utilization that the facts and ideas presented would start sawmill and lumber people thinking along the lines of closer utilization and the possibilities of

\*EDITORS NOTE: Dr. Jahn was appointed chairman of the important Committee on Waste Products for this conference.

profit to be derived from wood by chemical and other means besides lumber manufacture. It is hoped that this discussion will be continued at the next conference. The conference was very ably organized and led by Mr. W. G. Collins, retiring president. Mr. R. E. Irwin of Potlatch Forests Inc., was elected president to succeed Mr. Collins.

## "PRICE GREEN" DEDICATED

The meeting square located in about the center of the Arboretum will hereafter be known as "Price Green" in honor of Mr. C. L. Price, Forest Nurseryman, who has been in active charge of the School of Forestry Nursery since its beginning in 1910. Just a year ago this spot was cleared of brush and debris and made into an attractive meeting square bordered on three sides by trees. Dedication exercises which came as a complete surprise to Mr. Price, were held on Wednesday evening, May 18. Rev. C. M. Drury of Moscow opened the ceremonies with an invocation. Dr. M. G. Neale, President of the University gave the dedicatory address while Lister Spence of the School of Forestry faculty handled the dedication. Mr. Price, when called upon, expressed his surprise and appreciation of this courtesy. Dr. E. E. Hubert of the School of Forestry stated everyone greatly appreciated the splendid work Mr. Price has done, not only for the School of Forestry, but for the community and state as a whole. A trumpet trio playing "Trees" by Joyce Kilmer concluded the dedication ceremonies.

## APPRECIATION

The editorial staff wishes to thank the contributors whose cooperation has made possible the publication of this edition of *The Idaho Forester*. Many of the cuts used were borrowed from various sources. To the Idaho State Chamber of Commerce we are indebted for those appearing on pages 2, and 51; to *The Farm Journal*, Washington Square, Philadelphia, and the *Davey Bulletin*, Kent, Ohio for the cartoons on pages 39 and 45; to the College of Agriculture of the University of Idaho for the picture on page 16; to the Publicity Department of the University of Idaho for those on pages 1, and 34; to Dean J. F. Messenger of the University of Idaho for the picture on page 48; and to the "Gem of the Mountains", University of Idaho for the photograph on page 12. Besides the authors of the articles who supplied pictures to accompany their articles, Mr. P. G. Snedecor of the Idaho Rocky Mountain Club, Stanley, Idaho, furnished several of the scenic pictures.

## JUNIORS WIN ANNUAL BARBECUE

Another campus day but—not just another barbecue, for the latter was much better than usual. With a turn out of about 90 men and with keen competition between classes, the events went off in rapid fire fashion.

In the first event of pole climbing "Bili" Parks edged "Little John" Parker out by 3 seconds, thus the juniors took the lead from the start.

"Larry" Newcomb, junior, proved himself to be the best "river rat" by winning the log rolling contest from "Little John", but only by a fraction of a second.

Merrill Thornber made a fast clean cut through an 8 inch log to win the chopping contest for the sophomores. Time—48 seconds. We would like to see Thornber and Torney Anderson, last year's champ, chop for the honors.

Bucking a 17 inch white fir log with a 6½ foot felling saw proved to be the endurance contest of the afternoon. Harlan, sophomore, beat Greco, frosh, by 6 seconds. It is rumored that a certain logging student got a 10% cut in grades because he couldn't distinguish between a felling saw and a bucking saw.

The two man sawing contest was quite the fastest event of the day which was won by the juniors—"Larry" Newcomb and John Cook. Thornber and Paul Ingebretsen running on'y about 3 strokes behind.

This event ended that part of the afternoon's contests where skill and experience counted greatly towards one's success. The sophomores were

leading with 41 points, the juniors next with 38, then the frosh with 26 points.

In the egg throwing contest Paul Larsson won for the juniors with little competition. Jesse Hopkins might have won but he misunderstood the rules and threw his egg for horizontal distance.

Probably the most remarkable feat of the day was John Cook's "climax" contest. Distance—19 feet 8 inches. Needless to say, he had very little competition.

After a great deal of cussin' and discussin' as to whether track shoes could be used in the sprints, the ayes won out. The juniors were the only class thus equipped, which resulted from their sad loss last year to the frosh. However, the frosh seemingly are determined to retain all honors in this 100 yard event and this time Albee defied the track shoes and won by a couple of "bare feet".

The main contest came about 5:15 when the cooks cried "come and get it". This being an important foresters' pastime, everyone knew the rules and the keenest competition was shown. The honors were divided by such a large group that no attempt was made to select the winner.

The final result of the day's events showed the juniors to be the winners with 62 points, and the sophomores and frosh tying for second place, each with 51 points.

Thus ended another "Foresters' Barbecue" which is the final activity of the year put on by the Associated Foresters.

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## ARBORETUM DRESSED UP

The Arboretum on the University of Idaho Campus comprising an area of about 12 acres and controlled by the School of Forestry showed many signs of improvement after the Associated Foresters spent the morning of Campus Day in there. A most useful construction project was that of the fireplace on "Price Green". Under the supervision of a Moscow brick layer, the foresters did a very creditable job and from now on there will be no danger when it comes to controlling bonfires for evening meetings of the club.

The George Washington Bicentennial Memorial planted by Xi Sigma Pi was carefully raked and graded and a tile drainage placed across the area to allow the water to drain away from a certain low spot. To make an easy approach from the highway to the Arboretum, a crew of foresters

built real woodsy steps leading down to the Memorial planting.

A rodent control crew did good work in placing poisoned bait to exterminate the gophers which are causing some damage to trees and various vegetation. The Ribes eradication committee was not idle for a few Ribes were located and removed. This is for the protection of the white pine from the blister rust fungus. A sign posting crew scattered some neatly printed signs among the trees for instructions to Arboretum traffic.

The new "Thirty" Caterpillar tractor was not idle for the loggers demonstrated its use in pulling brush with splendid results. All in all the morning of Campus Day was a busy one in the Arboretum and already many University folk who have seen the changes have complimented the Foresters on this work.

## A Challenge — Quo Vadis?

(Continued from page 6)

protect ourselves against substitutes where our own products were superior to the substitutes offered; nor to protect ourselves against unsound building and fire codes.

### *Associations Favor Research*

The national and regional associations have some very strong men on their staffs who have done splendid work as far as their funds have permitted, but to date the membership in most of these associations has been very niggardly in their appropriations for research work, though so vitally important to their salvation. Sash joint treatment, kiln-drying, moisture content, box designs, are among the subjects being handled by the Western Pine Association's research department.

The money spent, by comparison, on research by companies and industries such as the telephone, electric, motor, aluminum, steel, and others, and results obtained, would make one wonder how we had retained any markets at all. It simply shows how real a necessity "lumber" is. Compared with the expenditures for research in other industries the amount spent by the lumber industry would be a joke, if it weren't a tragedy.

There are many places for wood not yet developed and the opportunities in this line are definite. Our trouble is that we have waited for necessity to force us and lost much valuable time instead of, as has been done by some industries, figuring it cut ahead, i.e., beating our competitors to the punch.

Forestry will afford other opportunities. Private timber owners will come more and more to the sustained yield plans. Some are working along these lines now and there is no question but that in many past instances values would have been enhanced by selective cutting instead of cleaning the ground. More and more these things are being realized which means more opportunity for technically trained foresters.

The government service is always open — both Forest and Indian Departments.

The Klamath Indian Reservation, on which our company is logging, has developed a management plan for sustained yield which has been in operation sixteen years. It is unique in both its size and that it has perhaps the farthest advanced cutting cycle in the U. S.—40% complete—and this despite the political bally-hoo levelled against the

department either through viciousness or ignorance.

### *Cooperation in Marketing Necessary*

Large concerns with sufficient volume to cover the territory with their own salesmen can afford to go direct to the trade.

Others, and this covers a larger percentage of the total, must sell through legitimate wholesalers or commission men who become their direct representation to the trade.

The wholesaler, who occupies a necessary position in the industry, must also broaden his selling policies to include this fight for lumber in its proper place, and if he is to occupy the position he has in the past and is entitled to in the future, he must accept the challenge and recognize that his ultimate prosperity is tied up with that of the mills. He must help his customer *sell* his products and spend more of his time and energy in widening his markets to obtain his margin, than on seeing how cheaply he can buy. Otherwise, the trend will be toward selling agencies composed of groups of mills who will go direct to the trade.

This picture is, as I said in the beginning, intended to visualize weak spots in the industry so that you may see where the greatest opportunities lie and decide for yourself which niche you would prefer to fill if you enter the commercial end. There will always be weak spots to correct in every industry as in our individual lives.

The lumber business is not a declining business, as has sometimes been suggested, unless we allow it to become so through lack of initiative, action, and progressive thinking.

An elastic band ceases to be of value when it loses its elasticity.

A shaft or axle is worthless when it becomes crystallized.

Iron will rust out sooner than it will wear out.

A runner or jumper is through when the spring goes out of his muscles.

But too often we act as though none of these principles applied to the mind. Why not apply the alleged Osler theory to any man between 25 years and 100 years who loses the mental modulus of elasticity and therefore ceases to be eager for new ideas or knowledge. He has then become mentally set, unadjustable, and lost his volatility. His constructive thoughts cease. How many of us would be left if chloroform were applied to those who qualified on this basis.

It has been said with truth that the only difference between a rut and a grave is the length.

Fortunately, there is no age limit to mental youth, vigor, and virility, except that imposed by lack or use of the faculties or abuse of Nature's gifts.

I have too much faith in the fundamental necessity, the basic position in our national life, the industry's heritage of brains and character, to believe that we won't develop within the industry fearless forward looking men with ambition, leadership, and strength enough to correct the major abuses the industry has fallen into, and raise it from the runner-up to the champion class. It will take men big enough to realize that what they are doing for the industry will redound to their legitimate self-interest—not selfishness.

Self-interest is God given—selfishness man made. The line is finely drawn but there are great opportunities for those who "want to" enough to discern the distinction.

We can always see the faults in the things we are most familiar with. That's the reason why the other fellow's game always seems easier than ours. But with all its faults I had rather be in the lumber game than any other I know of. I know no finer body of men, fundamentally, than you will meet there—whatever department you may choose.

But your technical training alone, valuable as it is, will not be sufficient.

Application of common sense is essential in all phases of life, but none should be so careful in cultivating and jealously maintaining it in the practical application of his knowledge as the specialist, for none goes farther astray than the technically trained man who doesn't appreciate that fact.

Make your technical knowledge a background for the practical. Keep the purely academic theory in the same relation to industry that a real minister of the Gospel holds his theory in dealing with every day life. He has to know it so that he can discuss the technical phases of the subject with technicians but let him so far forget himself as to confuse it with religion and his hold on the man in the street is gone.

Those of us trying to make lumber for every day people to build homes and other necessities are the men on the street. And we need your assistance to keep us out of a rut and help us to greater appreciation of our product and its application to the maintenance of a high standard of living at a reasonable cost. Here lies real romance and inspiration but it will take all of us

together to gain back the ground lost and conquer the new fields opening up.

In closing may I add that the relations I had with the University of Idaho are among my pleasiest and most valued memories.

The work of the Idaho School of Forestry and the helpful co-operation it has and is giving the lumber industry through its work with the research department of the Western Pine Association is outstanding. The record of its graduates in competitive examinations is a rare one.

Your location in the heart of one of the great pine belts coupled with your able staff and its practical application of theoretical principles gives you a unique place as one of the enlightened and forward looking forestry schools in this country, with almost unlimited possibilities.

I should like to pay some personal tributes but this is perhaps neither the time nor the place, so suffice to say that a continuance of the high standards and mental attitude developed through your leadership assures a permanent growth of inestimable value to the industry, the University, and the country at large. You will have to have some help from the legislature, it is true, and they should have a fuller knowledge than when I was in Idaho on which to base their estimate of one of the State's real assets.

#### WHERE DO TEAKETTLES COME FROM?



This cartoon is conclusive evidence that tropical forestry is associated with the production of teakettles. This native is busily engaged in pruning a teak tree for this purpose.





ever hope to see. It wasn't cut, it was moved."

"But what did Paul do with it?" I asked.

"Son, I can't tell you", said Black Cal, sadly. "I guessed Paul had hooked Babe onto the section and started for the river. He used to do it sometimes when we were short handed, or it broke up early in the spring before we got our contract finished. I figured he would haul it to the Mississippi, cut and market the logs, and make his get away, but I was wrong."

"I was getting kind of curious myself by this time, so next day I takes some grub and a blanket and starts out on the trail of that section. I follered it clear to the Mississippi and saw where he crossed and had gone up the other side. I climbed a tall tree and could see the trail still going on across Minnesota, so I gave up and came back home."

The sun was getting low in the west. Black Cal knocked the ashes from his pipe and said, "It's about time we had some supper", and went inside the cabin. I was some time before I could shake off the spell of the story I had heard and help with the evening meal. That night I dreamed of following that broad trail into the setting sun.

It was several years later before my fortune and other circumstances permitted me to again take up the trail of the lost Section 37. I visited Black Cal before starting and obtained from him the location where Paul crossed the Mississippi with the section in tow. The logger had been well known in Minnesota and it was not difficult to find old settlers who remembered his passing through with the Big Blue Ox hitched to a tract of timber.

When I reached Dakota it was not so easy as this state was but sparsely settled at the time. However, there were legends of mirages of waving pine forests that crossed the state in the late sixties.

When I reached the Black Hills, I was struck by the resemblance of the so called yellow pine to the Norway pine of the Lake States and thought I had found the end of my quest. But not a single tree of white pine could I find in the forest so concluded I must be wrong.

Toward the end of my stay in the Black Hills, I became acquainted with an old prospector who said he had worked for Paul on the Mississippi before the mining fever took him to his present location. When he learned the object of my search and being assured that I was not a gov-

ernment agent and meant no harm, he confided to me that Paul had passed that way in the fall of '67 and spent several days with him resting himself and the Big Blue Ox for their final pull over the Rockies.

Paul had told him he intended to take the section to the Pacific, cut the timber, ship it to Japan and use the proceeds to take himself to some other country where his abilities would be more appreciated.

From there on through eastern Montana the trail was not so plain. I did unearth a legend among the Blackfeet Indians of a great Spirit Buffalo that had been seen many winters previous by some of the old men. It was silver grey in color, they said, and its voice was like that of the thunder among the hills. I concluded they had heard Babe bellowing as Paul goaded him across the Bad Lands.

In Western Montana on the slopes of the Rockies I found the first forests of white pine and felt my search was nearing the end. I followed it across the continental divide into Idaho and found it one unbroken forest of white pine, hemlock, cedar, tamarack and western yellow pine as they called the Norway. Larger, taller and somewhat changed from the trees I knew in boyhood, due to change of soil and climatic conditions, but still the same species. I knew I had found the lost Section 37, but how to prove it. Search as I would I could not find one of the lost corners or a witness tree to bear me out.

One day in Coeur d'Alene I made the acquaintance of an old Wisconsin timber cruiser who had come west in 1870. I told him of my search and need of proof that I had found the lost section.

#### *Wisconsin Cruiser Helpful*

After some hesitation and considerable cross questioning to convince himself of my motives and intentions, he informed me that he had met Paul on Puget Sound when he first came west and Paul had described to him his trip across the continent with the purloined section of timber.

Paul had told him that when he left the Black Hills he had rough going across the Bad Lands. Then he ran into a blizzard in eastern Montana and for several days he and Babe nearly perished from cold and hunger. Then the weather moderated but the snow kept getting deeper and deeper. When they reached the foothills of the Rockies a chinook came on. The snow melted underneath and the rain descended from above. The frozen

section thawed out and began to spread. The harder Paul and Babe pulled the more the section spread until it covered several counties.

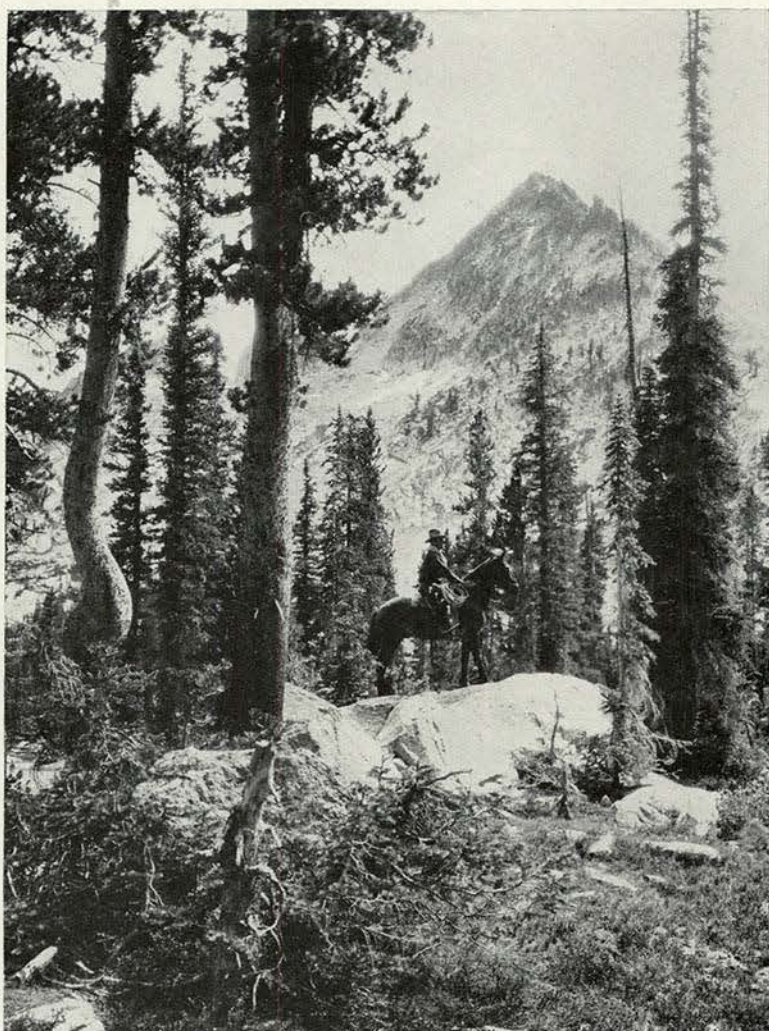
The chinook was still on the day they crossed the main divide into Idaho. The section had spread so they were only able to pull about half of it over that day. That night the weather cleared, turned cold and froze hard. The next morning the combined might of Paul and Babe could not move the frozen section which was folded across the continental divide.

Paul gave it up, turned Babe loose to rest and

fatten on the rich pasturage of the Palouse country, and went on to the coast afoot to locate a place to park his section when it thawed out in the spring so he could move it.

When he saw the magnificent trees of the coast forests he gave up his plan entirely, took a contract from Old Man Puget to dig the Sound, came back after Babe to help him and forgot about the section of timber he had left straddling the Rockies.

Here was the proof I needed; this was the end of the trail and the lost Section 37 was found.



KING OF THE SAWTOOTHES

*Where one obtains thrills from the scenery and health from the air.*

## Two Visits to the Interior of Idaho

(Continued from page 11)

erly direction passing through Bear Valley over a splendid Forest Service road and then over one not quite so good to Grandjean on the western side of the Sawtooth Mountains. From Grandjean we went into the Sawtooth Mountain area by pack train. Along the trail we saw numbers of snowshoe rabbits. Native pheasants flew up and sat in the trees to watch the pack train go by. In the game preserve we saw literally scores of deer. No description that I could give of the Sawtooth Mountains would be adequate. We went along trails made and maintained by the Forest Service, up mountain sides that looked to me to be far too steep for travel. We found numerous beautiful lakes, many un-named, and a few of them un-mapped. Many of these lakes contained trout and with proper development of a food supply for trout, doubtless most of them would become excellent fishing lakes.

The party paid a visit to Sawtooth Lake near the summit of the Sawtooth Mountains. The surface of this lake is in a depression some five hundred feet below the rim with an outlet through a gorge at one end. It would be hard to visualize a more beautiful lake than this one. In the small meadows along the summit of the Sawtooth Mountains we saw hundreds of acres of heather, some purple and some white. Although it was the month of July, this area had the appearance of a country where spring had just arrived. The mountains were literally covered with flowers.

Since this is written for *The Idaho Forester*, I should say again that on our trip through the Sawtooth Mountains we saw further evidence of the work of the Forest Service. Everywhere they maintained trails, watched against forest fires, helped stock the lakes with fish, and saw to it generally that the forest areas through which we passed were protected.

One night after we had made camp by a lake in the Sawtooth Mountains, a rider with two pack horses came into our camp. This rider turned out to be Mr. M. S. Benedict, forest supervisor of the Sawtooth National Forest, who was on his rounds over the mountain trail. We thought we had been careful about the construction of our camp fires, but his solicitude for the safety of the forests and his apprehension over

even the slightest risks of starting a forest fire greatly increased the care which the party took from that time on.

The readers of this publication are doubtless not interested in any further details of these trips into the interior of Idaho. Perhaps most of those who read this article have made many more trips into the interior than I have made and know far more about the activities of the Forest Service than I was able to observe. As one relatively new to the state and certainly new to such scenery as the interior of Idaho contains, I might perhaps be saying that the outstanding impression made by this trip was one of the tremendous value of this portion of Idaho to the people of both the state and the nation. Here it seems to me is a vacation place to which most any superlatives that the English language contains might be applied. It is a place for hunting such as may be found in few parts of the continent at the present time. It is now a place where trout fishing is good far beyond the imaginations of those who have fished only near main travelled roads, and it has possibilities of being developed by the planting of additional trout and the development of a food supply for fish in the various lakes into an unexcelled area for trout fishing.

### *Region Really Primitive*

In addition to the recreational facilities provided by the interior of Idaho for hunting, fishing, trail riding, and hiking, this section seems to have a rather inestimable value as representing a type of country which is fast disappearing and, in fact, has almost entirely disappeared from the face of the earth. It is a country little touched by the hand of man, and there is a sort of feeling which comes over a human being when he gets into a country of this kind that is well worth going from most any section of the United States to experience. It is a feeling of rest and recreation. Whoever visits this area could hardly help feeling that he is back where the world is young.

Making due allowance for the enthusiasm which would be aroused by a first visit to the interior of Idaho, I feel confident that I am justified in believing that the whole interior of this state will in the future prove to be one of its greatest assets. It is now almost an ideal vacation land. It is an asset which the state of Idaho should plan to develop from year to year, and it is also an asset which the Federal Government should maintain for the benefits which will come from it to the nation in the years to come.

## Idaho's Primitive Area

(Continued from page 14)

ing the winter months by members of the regular Forest Service organization.

Bitterbrush, rabbitbrush, mountain mahogany, sage, and Douglas fir form the greater proportion of browse feed taken by the deer during the winter. During early spring large amounts of young grass are eaten.

During winters of light snowfall the deer herd comes through with comparatively light losses. They are able to winter at higher elevations thus securing a more uniform utilization of forage, are stronger and more resistant to parasites and predators. In winters of heavy snowfall the losses are correspondingly greater. Almost the entire herd is crowded down to a comparatively narrow strip of range along the Middle Fork and its larger tributaries. The result is that this range is too closely utilized, the deer rapidly lose flesh, are further weakened by parasites and become ready prey to predatory animals or die from the former causes. It is not uncommon to see a dozen or fifteen kills by predatory animals on the shore ice of the river alone in as many miles of travel.

### *Elk Herd Spreading Out*

According to estimates there are 475 elk within the unit. The greater portion of these range in the watersheds of Chamberlain and Disappointment Creeks. During the summer a few drift into the drainages immediately adjacent to the Middle Fork. A few of these are now wintering in Wilson Creek, showing that the herd may be spreading out to some extent.

Because of the inaccessible territory in which they range, few elk are killed and taken out of this region. They appear to be holding their own and under present conditions may reasonably be expected to increase. Old elk horns are occasionally picked up in other drainages within the Primitive Area, showing that at one time they were more widespread than at present.

### *Sheep and Goats Run in Small Bands*

It is estimated that there are 500 mountain sheep and about 400 mountain goats. They are scattered in small bands throughout the rougher portions of the Middle Fork, its larger tributaries and the main Salmon River. Few have been killed by hunters during recent years, however they ap-

pear to be increasing very slowly, if at all.

### *Bear Common in Area*

So far as known, there are no moose within the Primitive Area, although there may be a few in the northwest portion since they have been reported on the Idaho Forest.

Black bear and its brown color phase are quite plentiful and are well distributed throughout the region. A total of 700 have been reported.

### *Predatory Animals Hunted*

Coyotes and cougar are the principal predatory animals. Occasionally a kill made by bob-cats is found. Eagles are quite often seen harassing deer and undoubtedly kill an occasional one by chasing it over a bluff or cliff. It is pretty well established that they prey to some extent on the young, not only of deer, but mountain sheep and goats as well. Both the golden and bald eagle are common in the region.

The state of Idaho maintains predatory animal hunters within the area. These hunters work effectively. However, due to the broken and precipitous nature of the country, it can scarcely be hoped to more than keep the predatory animals in check. To attempt to say how many predatory animals there are within the area, would be little more than a guess.

### *"The River of No Return"*

The precipitous canyon of the main Salmon River practically precludes entrance to the Primitive Area from the north, except by boat down the river from Salmon City. This method of entrance is feasible during low water and the trip down the river is filled with thrills and well worth while. Since a boat cannot return against the strong current, the traveler must either continue on down the river to Riggins or climb out of the canyon and overland. Weidner, who filmed scenes on this trip, aptly titled his picture, "The River of No Return."

From other directions, entrance can be readily made from the end of the various roads leading to the Area by means of pack outfits. The country as a whole, is well watered, attractive camp sites are abundant and forage for horses can nearly always be found near at hand, making it ideal for pack trips.

### *Scenery and Other Attractions*

The scenery of the Primitive Area is not more beautiful than can be found in many other mountainous regions within the Rocky Mountain system. While it is rough and rugged, with numerous

rims and bluffs, as a whole it lacks the color and picturesqueness found in some other localities. An exception to this is Rainbow Mountain, so named because of its rainbow colored hues. There are, however, many beautiful scenes and many features of interest, especially to a student of geology.

Among these is "Ship on the Lake", a small island in the middle of a lake with a few trees growing upon it and giving it the appearance of a masted ship. This is situated in the heart of the Big Horn Craigs, a region so rugged and inaccessible as to make even foot travel extremely difficult. Roosevelt Lake previously mentioned, and the monument from which Monumental Creek derives its name are of especial interest. This monument is a column seventy feet high. It has a base about three feet in diameter and supports a large boulder on its top.

Other features of interest to the traveler, are

the caves along the Middle Fork and Big Creek, Sheepeater Indian Paintings, the old Indian camp grounds, and the monument on Big Creek erected to Private Egan who was killed in the Sheepeater Indian campaign. This is probably the most remotely situated monument of this type in the country.

While there will always be some commercial activities within the Area, its greatest use will be for hunting and fishing. With the exception of about 250,000 acres within the Middle Fork Game Preserve, the area is open to hunting.

Probably the greatest appeal of the Primitive Area is its vastness, its isolation, which permits one to get entirely away from modern means of existence, and its supply of fish and game.

Acknowledgment is made to Supervisor S. C. Scribner, Challis National Forest, from whose report on the Primitive Area much of this material has been taken.



*A Train Load of White Pine Logs Leaving the Clearwater Region*

## The Livestock Ranges of Idaho

(Continued from page 16)

water, sufficient outside range is controlled to insure early and late grazing.

Unlike the cattle ranches the sheep are mostly wintered in the low valleys, where the winters are not as long nor the snow as deep. The system of shed lambing in the lower altitudes requires an abundance of good winter feed, February sunshine and early grass. In the higher altitudes, where the winters are long and hard, it is not feasible nor practicable.

### *Spring Range on Lower Sagebrush Plains and Foot Hills*

Characteristic of the spring range feed are the short lived awned grasses of the wheat and needle grass families, the rye grasses, nutritious and palatable flowers and plants known as weeds, the sages, buck brushes and in some areas the salt bushes and the greasewood. A summary of the good grazing plants is that they start early in the season, grow rapidly, mature early and die. The spring ranges change rapidly from good grazing to dry, unpalatable range. The watering facilities are seasonal and uncertain, in some of the areas being so lacking that the feed cannot be grazed when ready. In this case the grasses and some of the weeds dry and mature into cured feeds that are utilized the following winter when there is sufficient snow to insure water for the stock.

### *Summer Range*

The best summer ranges are in the forests where the late season and the melting of the snow provide fresh, tender feed all summer, the stock moving upward as the lower ranges become dry. On the summer ranges there is an abundance of water, a short but bountiful growing season with an ideal combination of feed, such as grasses that are nutritious and palatable at all stages of growth and when matured, a great variety of palatable, succulent broad-leaved plants and browse consisting of the leaves, flowers and fruit of small tree-like shrubs.

### *Fall Range*

From a grazing standpoint the fall ranges are not as universal or as certain as the spring and summer ranges. Generally they are the spring range areas where the feed has made sufficient growth to insure feed and there are some watering facilities. This is insufficient to care for all the

range stock that the spring and summer ranges have carried and must be supplemented by the fall pasture on the irrigated ranches, consisting of the aftermath in the harvested hay and grain fields.

Disposal and management of the range land has been, and is today, a baffling problem. The establishment of the Forest Service, placing many of the forest grazing areas under control, stopped the range wars, enabled the cattle industry to survive and made it possible for a small outfit to exist on the range. The Public Domain is still mostly an open range, available to those who come first, making it necessary to turn out the stock often before the feed is ready. The result is some over-grazing deterioration, yet it still exists in this way mostly because no satisfactory plan of regulating grazing has as yet been adopted.

Most of the knowledge of the range is yet in a miscellaneous non-assembled form. At the time of creating the National Forests there was but little knowledge of range conservation, of deferred grazing and proper management. Present day information has been gathered slowly by experience in the field. Could the present day knowledge of conservation, deferred grazing and proper management of cattle and sheep on the range have been known and put into practice at that time, the ranges of today would be better than they are. As it is, over-grazed and deteriorated ranges are a problem so that it is a question as to whether conditions are not gradually becoming worse each year. Over-grazing is mostly caused by turning stock onto a range when the ground is muddy; when the plants are so young and immature as to have poorly developed roots and thus are unable to recover from the setback of being cropped off close to the ground; over-stocking and the improper handling of the stock.

### *Careful Livestock Distribution Essential*

By following a system of keeping the cattle distributed by proper salting, proper utilization of the available watering places, and holding them back from their natural tendency to work upward to the higher ranges too early before the feed is ready, the range may remain good from year to year. Closely herded sheep, moving back and forth to the same bed ground, or same watering place, destroy more feed than they eat. The use of the open herding system and the bedding of sheep where they are at night as they work upward on the range may mean the difference between a good improved range and one deteriorated and over-grazed.

Cattle and sheep differ as to the utilization of a range. The spring range at its best is valuable both to cattle and sheep, cattle thriving and putting on weight, and while the feed is tender, the ewes milking well and the lambs coming into bloom. While the ideal cattle range is a country of rolling hills, cattle that are raised on rough, mountainous range utilize it thoroughly. Breeds of cattle vary greatly, the beef breeds being better grazers than the dairy breeds. Cows and bulls do not graze as far from water or as high up in the mountains as steers and young heifers. For sheep that will stay together and be easily handled on the range, Rambouillet or Merino blood is imperative, the Down breeds having a tendency to scatter and lack the flocking instinct which is a necessary characteristic of range sheep. Sheep will do as well on rough, mountainous range as on a level or rolling range. A dry grass range is used to better advantage by cattle than by sheep, while weeds are grazed better by sheep than by cattle. Browse is palatable to both cattle and sheep and is well utilized by both.

Determining the use of an Idaho range is based upon a number of factors. From a grazing standpoint none are upon the comparative financial return of cattle and sheep, though unfortunately many ranges have been changed on this basis the last decade.

A home ranch where the winter feed consists mostly of wild or native hay and straw and where the winters are long and hard is better for cattle than for sheep.

A range having more than 50% grass and a shortage of weeds and shrubs is better for cattle. Many ranges can be grazed to advantage by both cattle and sheep, provided the grazing is properly supervised.

The range problem is one of major importance to the eleven western range states. From the Idaho ranges more than one hundred thousand cattle and one and a half million lambs go to market each year. The combined cash income from the beef cattle and sheep over the last ten year period has averaged \$33,000,000. The ranges are a heritage well worth conserving and one in which Idaho can well take pride.

#### FORESTERS SEE MOTION PICTURES

Seven reels of motion pictures on forestry topics were shown by the Associated Foresters in Science Hall on Wednesday evening, January 6th, for their own entertainment and for a large num-

## A Light Telephone

(Continued from page 20)

ceiving apparatus must be in the direct beam in order to catch the signals. If any object interrupts the beam the message can not be received. Likewise if the receiving operator is not aware of the beam and does not prepare his apparatus for it, the message is not received. So far we have not incorporated any bell signal by means of which the operator would be called, but such a system could easily be added to a semi-permanent station. It would only require a slight modification in the receiving circuit and the additional requirement that the apparatus were always left in position for reception.

The second great disadvantage of a light telephone is the fact that the atmospheric absorption of light sometimes reaches very high values. For example unusual amounts of fog, smoke or dust would quickly make the light telephone inoperative except at very short ranges. Thus it could hardly be relied on as an emergency apparatus during heavy forest fires.

#### *Uses May be Varied*

Under normal conditions of visibility, however, the "light telephone" might find many applications. Very likely it could become a useful addition to the foresters equipment. Because of its portability it could be taken along to temporary stations and camps to which it would not be feasible to string wires. It also could be used in emergencies when atmospheric absorption permitted. It could be of great use to survey parties, for they operate in general only when the air is clear, and long distance surveying might be made more efficient if a portable telephone could be used. The "light telephone" might be used by exploring parties who wanted to keep in contact with the base camp, it might be used by ships which meet at sea, it might be used for directional wireless telephony both in peace and war, and it might be used just because it is different from other telecommunication methods.

ber of visitors composed of Moscow townspeople, school children and University students. Some pictures particularly showed the scenic resources and vast forested areas of Idaho. Wild life scenes were not uncommon and the relation of forestry to agriculture was well brought out. The films were obtained through the courtesy of the Idaho State Chamber of Commerce.

## Idaho State Forester Elected President Nat'l Association

(Continued from page 24)

Public Relations Department of the U. S. Forest Service, and A. B. Hastings, his assistant, discussed matters of cooperation under the Clarke-McNary Law with the state foresters. Mr. Morrell was formerly Forester of Region One so is well known to Idaho foresters.

"The following morning we left Ocala, passing through large bodies of Southern pines which were producing gum for distillation. During the day we visited Silver Springs, Daytona Beach, and St. Augustine. We also saw large acreages of oranges, though we were hardly far enough south for the real orange country. We arrived back in Jacksonville, Florida, at 6:30 that evening and concluded the trip.

### *Timber Practically all Second Growth*

"The strange thing to me is that in the 1,000 miles we traveled, though the area was at least seventy-five per cent forested, we saw no virgin timber, with the exception of a small amount of cypress in the swampy areas. The pine timber is all second growth material. Another thing I noticed was that at no time during the 1,000 miles travelled, was there enough difference in elevation to tell whether we were going up hill or down.

"In the past, fires each year have run over more than seventy-five per cent of the forested lands. The fires have not damaged the mature trees severely, nor even the larger immature trees, but it has badly injured the reproduction and young trees which are starting. The larger owners of forested tracts have become very sensitive to the damage these fires have done and are now very active in protection. Though the general area is very inflammable, the problem of fire protection is much simpler than that in the Northwest on account of the ground being rather level and also, fire fighting equipment can be transported by truck to practically every point.

"It would seem that the principal object of the owner is the production of naval stores, and that lumber production is second. Trees are cut for lumber when they are only about fourteen to sixteen inches in diameter, having been tapped for gum excessively until they cease to produce it."

## Department of Forestry at Southern Branch

(Continued from page 25)

total enrollment for the present semester is 31, of whom 27 are natives of Idaho, and four from other states.

Early in the present school year, the students organized a forestry club, known as the Southern Idaho Foresters. The organization has made splendid progress, which is a well merited tribute to Whitney Floyd, the president, and Stewart Brown, secretary-treasurer.

The first social event of the year was a day hike from the Pocatello Boy Scout camp to the top of Scout Mountain, followed by a generous "feed". After an hour of rollicking fun about the campfire, the day was rounded out with baseball and other sports.

### *First Annual Banquet Huge Success*

By all means the most outstanding event of the entire year was the first annual banquet, held at the Y. M. C. A. in Pocatello on November 30. Dean F. G. Miller of the University of Idaho School of Forestry at Moscow, was the principal speaker and guest of honor. He delivered an inspiring address on the subject "Trends in Forestry", showing that industrial forestry is rapidly becoming an actuality, and that, right here in Idaho. He indicated the growing need for trained foresters in logging, milling, and other industrial enterprises, and showed that those who acquire a specialized education in forestry may now look forward to opportunities in private work.

Senator Wesley Gibson, Chairman of the State Senate Finance Committee, in a short talk, expressed his interest in the work that the forestry department is doing.

Other guests who spoke briefly included representatives from the Targhee and Caribou National Forests, and a car-load from the Cache who braved a stormy night and drove 200 miles to see the banquet launched successfully.

### PONDEROSA PINE

Ponderosa pine is the new common name for western yellow pine. No more can we call it "bull" pine either for it is just plain *ponderosa pine*, (*Pinus ponderosa*).



# DIRECTORY AND NEWS OF ALUMNI AND FORMER STUDENTS

FLOYD L. OTTER, '29

- Anderson, Bernard A., M.S. (For.) '28, 618 Realty Building, Spokane, Wash. No change is reported in Andy's address. He is Junior Forester with the Office of Blister Rust Control.
- Axtell, Donald H., Ex-'29, 211 Fourteenth Ave., Lewiston, Idaho. Don is stock clerk in the shipping department of the Lewiston Mill, Potlatch Forests, Inc. He was married June 16, 1930 and is the father of one son.
- Balch, A. Prentice, '29, Ashton, Idaho. Alphabetically speaking "Bones" is the first of the many alumni who have, during the past year, entered into the bonds of matrimony. Miss Clara Elliott of Potlatch is the lucky girl. The ceremony took place at Anaconda, Mont. November 4. "Bones" reports that he is still a rising young J. F.—rising at 6:a.m. every morning to battle the mighty Dendroctonus. The Targhee National Forest still claims him.
- Baird, John, '28, U. S. F. S. Pagosa Springs, Colorado. "Jawn" reports good behavior and good health.
- Bartlett, Stanley Foss, Ranger Course. Bartlett is Associated Press Editor of the Lewiston (Maine) Sun Journal. He again was kind enough to send in a literary contribution—"Vagabond Roads"—which appears in The Idaho Forester.
- Bartles, Harry E., Ranger '28. Our last known address is Box 11 Fort Apache, Arizona.
- Baumann, Herman, '24, Woods Superintendent, Fruit Growers Supply Co., Susanville, Calif. Baumann has been conducting some mighty interesting studies on fire protection for his company.
- Beals, Wilfred F., '27, Forest Ranger, Harney National Forest, Lauzon, S. D. He is now the father of two children, both girls.
- Bedwell, J. L., '20, M.S. Oregon State College, '24, Division of Forest Pathology, U. S. Department of Pathology, Washington, D. C. Bedwell is Associate Pathologist. In his spare time he is working on his doctorate's dissertation and hopes to take his Ph.D. degree from Yale this spring. His election to the Yale chapter of Sigma Xi, honorary scientific society, was announced recently.
- Bennett, Carey H., '29, Bureau of the Biological Survey, Washington, D. C. "Shorty" is still doing a lot of travelling for Uncle Sam.
- Bickford, Allen, M.S. (For.) '31, Room 600 Stern Building, 348 Baronne St., New Orleans, La. Bickford is Junior Forester with the Southern Forest and Range Experiment Station, U. S. F. S. He reports that "Bill" Krummes and "Shorty" Sargeant have spent some time in New Orleans this winter.
- Biker, John B., '28, Box 669, Trail, British Columbia. Johnnie has moved from Wallace, Idaho back to his native land and you can find him in the ammonium sulphate office at Trail. His wife and one girl make up the rest of the family.
- Bolles, Warren H., '26, M.F. Yale '29, 514 Lewis Building, Portland, Ore. Bolles is Assistant Forester connected with the forest survey of the Douglas Fir Region. He represented the Idaho Chapter (Epsilon) of Xi Sigma Pi at the national convention held in Portland, Oregon, last winter.
- Buchanan, T. S., Ex-'34, Box 4137, Portland, Ore. "Buck" is still with the Division of Forest Pathology, U. S. Department of Agriculture. He spends his summers doing investigative work on white pine blister rust in British Columbia and in the winters, plays "in an orchestra specializing in both the Monroe calculator and the Sundstrand adding machine." He plans to return to Idaho this fall to continue his studies in the School of Forestry.
- Buckingham, Arthur, '30. "Art" is district forest ranger on the Challis National Forest, Challis, Idaho. He is the author of the splendid article on "The Primitive Area" which appears elsewhere in this issue.
- Burroughs, I. C., '27, M.F. Yale '28; Forester and Assistant Chief of the Division of Forest Protection, Texas Forest Service, Lufkin. "Ike" was married last May. He adds that his only children are three Texas Forest Service circulars on Forest Protection for use in Texas schools.
- Burton, Leslie, '30, U. S. Forest Service, Denver, Col. "Les" was in Moscow for the Christmas holidays and managed to get himself married to Miss Madaline Marden of Moscow on Christmas day. He is Junior Forester on the Colorado and Routt National Forests, but since

Christmas has been on a three month detail to the Nebraska National Forest for insect control and thinning work on the Sandhill plantations there. His senior thesis broke into print in the January 1932 issue of the Journal of Forestry.

Bush, Ben E., '03, Idaho State Forester, with headquarters at Moscow. Mr. Bush has favored the Associated Foresters many times by talks at their group meetings and banquets. His election to the presidency of the National Association of State Foresters is mentioned elsewhere in this publication.

Chamberlain, Fred B., 59 Albert St., Melrose, Mass. Chamberlain is in the wholesale lumber business in Boston. The present demoralized condition of the lumber industry, he says, is causing immense loss to both the lumbermen by low lumber prices and to the American people by unnecessary cutting of our virgin timber. Lumber prices in Boston, he says, are ridiculously low.

Cochran, Allen R., '28, M. F. Yale '30, is District Ranger in the White Mountain National Forest, New Hampshire. His address is Littleton, N. H.

Cochrell, Albert N., Ranger Course '22, Sandpoint,

Idaho. Cochrell has transferred from the Kankiku to the Pend O'reille National Forest. He is Assistant Supervisor.

Connaughton, Charles, '28, Intermountain Forest and Range Experiment Station, Ogden, Utah. Charlie says "I'm married", evidently as surprised as the rest of us. The wedding is reported by the Region Four Daily News as taking place in Ogden, January 20. Mrs. Connaughton was Miss Myrtle Snyder, also of the Forest Service. Charlie's work is in the silvicultural branch of the experiment station.

Cossitt, Floyd M., '32, Technical Assistant, U. S. Forest Service, Newport, Wash. Floyd graciously assists the Juniors during their annual field trip at Priest River.

Cranston, William V., c/o English Lumber Co., Mount Vernon, Wash.

Cummings, Lewis A., '25, M.F. Yale '28, District Ranger, Rio Grande National Forest, South Fork, Colorado.

Cunningham, R. N., '17, Forest Economist, Lake States Forest Experiment Station, University Farm, St. Paul, Minnesota.

Daniels, A. S., '23, 306 West Twenty-third St., Houston, Texas. Daniels is chemist and as-

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## The Reverend Richard T. "Dick" Ferrell

(Continued from page 23)

camp to visit them. He finds them in hospitals and sometimes in jails. He is always welcome and his enthusiasm and interest bubble out all over him. And when he bids good-bye to his boys he never fails to leave with them a generous supply of literature which is greedily devoured. His worth cannot be measured in dollars and cents but it can be measured in saving souls.

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sistant superintendent of the Southern Pacific Wood Preserving Works. An article over his name appears in *Industrial and Engineering Chemistry, Anal. Ed.*, Oct. 15, 1931.

Davis, Robert, '28, U. S. Forest Service, Ogden, Utah. His title is Junior Forester and he appears to prefer timber sales and especially lodge-pole pine.

Decker, Arlie D., '13, M. F. Yale '17, recently moved to Spokane, Wash., but is still with the Weyerhaeuser Sales Co., in charge of cedar poles sales. His address is 2224 Rockwood, Spokane.

de la Cruz, Eugenio, '26, M. F. Yale '27, 1214 Miguelin St., Sampaloc, Manila, P. I., Assistant Chief of the Division of Forest Lands and Regulations, Philippine Forest Service.

Doyle, Ivan S., '26. "Ike" is still in charge of the central warehouse of the Potlatch Forests, Inc. at Headquarters, Idaho.

Drissen, John P., '21, Browning, Montana. What we take to be a promotion to a more important position has moved John Drissen from the Yakima Indian Reservation in Washington to the Blackfeet in Montana. His title is Forest Supervisor.

Eastman, Virgil H., '31. "Stubby" is located at Orofino, Idaho as Field Assistant on the Clearwater National Forest. His was the detection planning work in field and office that Regional Forester Kelley described at the school this spring. His wedded life dates from June 1931 when he surprised his classmates.

Farmer, Lowell J., '30, M.S. (For.) '31. Lowell is Junior Entomologist for the U. S. Department of Agriculture, with an address at 413 First Ave., Salt Lake City, Utah. He transferred from Coeur d'Alene, Idaho, to his present location.

Farrell, J. W., '22, Forest Supervisor, Challis National Forest, Challis, Idaho. "Jimmie" took over this job just in time to encounter one of the worst fire seasons on record, but the Challis came out on top.

Favre, Clarence E., '14, M. S. (For.) '15. Mr. Favre is still Forest Supervisor of the Wyoming National Forest at Kemmerer, Wyoming. He reports that he hears from Mark Anderson Ex-'14 at Provo, Utah occasionally. Mark is proprietor of the Roberts Hotel at that place.

Fenn, Lloyd A., '17, L.L.B., U. of Montana '26, Superintendent of Schools, owner of the Kooskia Mountaineer, and attorney at law Kooskia, Idaho.

Ferguson, Ray S., Special '20-'23. District Ranger, Middle Fork District, Selway National Forest, Kooskia, Idaho. With him as rangers on the same forest are three of his classmates, F. W. Shaner, L. W. Lewis, and George Case. Case spent about twenty consecutive days on snowshoes this winter getting his man in a game law violation and trespass case in true Northwest Mounted style. Ferguson, along with the other Forest Service officials of the region, is concentrating at the present time on visibility studies and detection plans with the aim of getting 100% visibility as a first requisite to adequate fire control on his district.

Ficke, Herman, '31, is working on visibility studies for the St. Joe National Forest. His address is % U. S. Forest Service, St. Maries, Idaho.

Field, W. D., '26. Assistant Land Agent for the new Potlatch Forests Inc., Lewiston, Idaho. "Walt" escorted the Senior Class through the woods operations of the company at Headquarters on their field trip last fall.

Folsom, Frank B., Ex-'22, is Senior Forest Ranger, Deschutes National Forest, Bend, Oregon.  
Fox, Charles E., '28, Principal, Deary Rural High

School, Deary, Idaho. He states that he plans to attend the summer quarter at the University of Washington.

Fritchman, Holt, '31, Holt gives his occupation as one of the army of unemployed. A letter will reach him at Naches, Washington, one with an appointment enclosed would be preferred.

Garin, George Illichevsky, '29, M. S. (For.) '30. George reports that his present occupation is that of Forest Ranger and gives his address as Dixon, Montana.

Garner, L. H., Ranger Course '23, Hailey, Idaho. Garner is District Ranger on the Sawtooth National Forest.

Gatley, Howard A., Ranger Course '23, is Scout Executive at Kenosha, Wisconsin. He is getting in some good forestry licks, having interested Boy Scouts in planting 6,000 trees on their camp site at Dyers Lake. He is also serving as State Conservation Warden. His permanent address is 841 Rittenhouse St., N.W., Washington, D. C. Mr. and Mrs. Gatley have two children, one boy and one girl.

Genaux, Charles M., M.S.(For.) '29. Charlie has received a substantial advancement this year,

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having accepted the position of Professor of Forestry at the University of Idaho, Southern Branch at Pocatello, Idaho. He has charge of all the forestry instruction there which consists of the first two years of forestry work for about 35 students. We are certainly glad to get him back into Idaho.

Gerrard, Paul H., '23, is still Assistant Supervisor on the Clearwater National Forest at Orofino, Idaho. He looks after the big blister rust job on the Clearwater.

Gillham, Norman F., '26, is with the U. S. Biological Survey, Rodent Control, in charge of porcupine control on the Coconino and Tusayan National Forests, Arizona. He states that this is the first time that the control of porcupines on the national forest has ever been attempted by any government agency and if it is successful it will likely open a large field in this line of work, which is of interest in this era of the sometimes mentioned depression. Early work has been experimental in character, but the Biological Survey plans to establish a ten year program and eradicate the pests if possible on these Forests. "Toots" says he has been putting in plenty of hours and expects to come out with a bulletin sometime. He was married in 1928 and became the father of a girl last April.

Godden, Floyd W., '27, is carrying on as Assistant Forest Supervisor, U. S. Forest Service, McCall, Idaho. He has two children. He undoubtedly also "enjoyed" the 1931 fire season.

Guernsey, William G., '29, 618 Realty Building, Spokane, Wash. "Bill" is with the Division of Blister Rust Control as Junior Forester.

Gustafson, Carl, '26, M.S.(For.) University of California '29. Percy Rowe tells us that "Gus" transferred to the Sierra National Forest, California, in May, 1931. He is on timber sale work.

Hammond, George M., '20, Vice-President and Assistant General Manager of the Bowman Lumber Co., 1622 San Fernando Road, Glendale, California. Family: wife and two young lumberjacks. Publications: none with the exception of lower and lower retail lumber price lists. Dr. Frank Brown, '22 another old forester from Idaho is practicing dentistry in Pasadena.

Hand, Ralph L., Ranger Course '22, District Ranger, St. Joe National Forest, St. Maries, Idaho.

Harlan, Paul M., '25, is in the advertising business with M. E. Harlan, 1073 Monadnock Building, San Francisco.

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Harris, Thomas H., M.S.(For.) '30, is Junior Forester in the Division of Blister Rust Control, U.S.D.A., 618 Realty Building, Spokane, Wash. Tcm broke into print May 1931, in the Journal of Forestry as a co-author of a technical article. He expects to spend next summer on Ribes eradication work on one of the national forests of California.

Hatch, Alden B., '28, M.F. Yale, '29. Alden will be with the Allegheny Forest Experiment Station until June, 1937 at which time he will take up his work at the Harvard Forest, Petersham, Mass. Hatch spent nearly two years in Sweden in study and research and since that time has been doing work on mycorrhizae at the experiment station. He expects to get his doctorate at Harvard. Mr. and Mrs. Hatch announce their first child, Robert, was born in Sweden April 24, 1930 and their second son, Huntington, at Moscow, Idaho, March 6, 1932. Mrs. Hatch has been visiting her relatives in Moscow the past winter.

Hepher, W. Stanley, '31; is a research scholar at the Idaho School of Forestry this winter. He expects to publish the results of his thesis work soon. Next year, he hopes will see him on his way toward the doctorate in pulp and paper or wood chemistry. "Stan's" permanent address is Boswell, British Columbia.

Hill, Edward B., '31. Ed, until last December, was with Region 4, U. S. Forest Service on insect control work. He left Moscow May 14 to accept a temporary appointment as District Ranger on the Caribou Nat'l Forest, Montpelier, Idaho.

Hillman, William P., Ex-'13, has been for some time Assistant Supervisor, St. Joe National Forest, St. Maries, Idaho. He is married and has three children.

Hockaday, James M., '31. The biggest news of the year from "Jim" is his marriage to Virginia Merriam, '31, at Spokane, February 6. They are living in Moscow this winter where "Jim" is taking some post-graduate work in education.

Hoffman, Henry C., '27, M.S.(For.) '28, Junior Forester, U. S. Forest Service, Ogden, Utah.

Hume, John F., '31, is also in Moscow this winter waiting until the forest work opens up in the spring.

Jackson, Tom, '19, Resident Manager, lumber operation, Fruit Growers Supply Co., Hilt, Calif. Mr. Jackson was a conspicuous figure at the

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1931 Pacific Logging Congress held in Spokane last October.

Jemison, George M., '31; Northern Rocky Mountain Forest and Range Experiment Station, Missoula, Montana. George is Junior Forester engaged in fire study research. He was married on December 30 to Miss Beatrice Gibbs of Buhl, Idaho. His tentative plans include a trip to Ann Arbor for graduate study in 1932-33. His work on compilation and analysis of weather records for the Priest River Weather Station will be published soon.

Johnson, Royal, '27, Potlatch Forests Incorporated, Lewiston, Idaho with the title of assistant time keeper of the mill.

Keene, Edward L., '29, is Junior Forester on the Targhee National Forest at St. Anthony, Idaho. He spends his winters in the Regional Office at Ogden on forest management work which he says is very interesting and instructive. "Ed" is another of the recent graduates to "jump the traces". He was married in Ogden February 8 to Miss Marian Turner of Jackson, Wyoming.

Kemp, R. L., Ex-'27, Spirit Lake, Idaho. Kemp is with the Panhandle Lumber Co., Spirit Lake, Idaho.

Kennedy, Fred H., '29, Weiser, Idaho. During the past year "Fritz" has been assigned to the Weiser National Forest as Junior Range Examiner. He is revising the grazing survey by making a field check on the original estimates. With others of the region, he spent considerable time on fires last summer. He is keeping Balch, Keene and many others of his class mates company in matrimonial bliss. He was married last August to Miss Lucille Bell of Logan, Utah.

Klepinger, Franklin, '30, 1137 Thirty-sixth Place, Los Angeles, California. Klepinger has moved from the snow-capped peaks of Glacier National Park to the land of eternal sunshine and is now engaged in experimental reforestation with the Los Angeles County forestry department.

Kreuger, Otto C. F., '29. Otto is Forest Ranger with the California State Division of Forestry. His address is 111 East 5th, San Bernardino, California. During last winter he was in charge of one of the government's emergency camps for unemployed. There were about 135 men in the camp. He states each of these men worked 4 hours a day in return for their meals, bed, and necessary clothing. Their work consisted of building firebreaks in the mountains and reducing fire hazards along roads. His

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spring work was mainly on public relations concerned with fire prevention. He expects to stay with the fire fighting game.

Krummes, William T., '30. "Bill" is still Junior Forester on land acquisition work with the bureau of Biological Survey. A letter will reach him in care of the Bureau at Washington, D. C.

Langer, Charley J., '30, Fort Duchesne, Utah. Charley has been promoted during the past year from Forest Guard to Junior Forester in charge of all forest and range management work on the Uintah and Ouray Indian Reservation. He is a staunch advocate of the Indian Service for foresters. The coming season he says will be devoted to grazing reconnaissance, plans and improvements. Bark beetle work and fire protection occupy part of his time. He was a visitor at Moscow during the Christmas holidays and also attended the Range Research Conference at the Great Basin Branch Experiment Station last August.

LeBarron, Russell K., '31. Russell is Junior Forester at the Lake States Forest Experiment Station, U. S. Forest Service, St. Paul, Minnesota. His appointment came last summer as a birthday present on July 13. He spends his summers in Northern Minnesota on the Superior National Forest on silvicultural research. He is enthusiastic about his work and his associates. He just announced his marriage to Miss Elizabeth Anne Russ on April 14, 1932 at Fargo, N. D.

Lehrbas, Mark M., '27. Paul Harlan says that "Polly" is making the Mississippi valley into a paradise for foresters. He rates as Assistant Forest Economist assigned to timber survey and attached to the Southern Forest Experiment Station. This represents a promotion from Junior Forester. His present address is 348 Baronne St., New Orleans, Louisiana.

Lindsay, Clive J., '31, Clive is manager of the Southern Idaho Bean Growers' Association Warehouse at Hazelton, Idaho. His future plans include advanced study in tropical forestry at Yale.

Lindstrom, C. E., Ex-'26, District Representative, Weyerhaeuser Forest Products, Box 65, Cambridge, Mass. "Lindy" broke into print the past year (picture included) in a prominent lumber trade journal when it was announced he joined the hole-in-one club in golfing.

Lommasson, Thomas, Ex-'17, is in the Range Management Division of the U. S. Forest Service, Missoula, Montana.

McLaughlin, Robert P., '25, M.F. Yale '26. "Bob"





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is still at Yale working on his Ph.D. which he expects to receive this June. A letter will reach him in care of Yale Forest School, New Haven, Connecticut.

Malhotra, Des Raj, '25, is Assistant Conservator of Forests to the State of Kashmire at Jammu, Kashmire State, India.

Malmsten, H. E., '17, 231 Giannini Hall, University of California, Berkeley, California. Harry is still Assistant Professor of Forestry, engaged in teaching and research in Forest Protection and Range Management. His research work is concerned especially with the effects of fire on chaparral range lands in Northern California.

Martin, Paul J., '18, 705 N. Fiftieth Street, Seattle, Wash. Paul Martin's hobby is still rattlesnakes, in fact all things that crawl. He has been chairman of the Reptile Committee for the Northwestern Sportsmen's Fair at Spokane for several years. If you find any rattlesnakes or lizards in the field this summer, just put them in your pocket and when you get the chance, send them to Dr. Gus Knudsen, Woodland Park Zoo, Seattle. Turtles, garter snakes, hoop snakes, and especially any reptile from the southwest would also be appreciated. In his spare time, Mr. Martin is in the general insurance business, but is best known as the "Rattlesnake King".

Miller, William B., '22, M.S.(For.) University of California '25. Byron has been located in Walla Walla, Wash., for a part of the past year at the Veteran's Hospital.

Mitchell, W. V., '28, "Shy" is still at home in Delaware although his thoughts often turn to forestry and foresters. He is not yet physically able to engage in active forestry work. He is anxious to hear from any of the Idaho foresters. His address is 1105, Madison Street, Wilmington, Delaware.

Munson, O. C., '21, 791 Emory Court, San Jose, California. Oscar is supervisor of maintenance and installation work for the Pacific Telephone and Telegraph Company. He writes, "The Bell Telephone System used over 600,000 poles during 1931. Are you foresters growing them that fast?"

Myrick, E. H., Ex-'17. Effective February 1, Mr. Myrick was transferred from the supervisorship of the St. Joe National Forest to that of the Clearwater. He states that the Clearwater promises to be one of the largest timber sale national forests in Region One in the near future.

The big problem is to grow timber as fast as there is a demand for it in spite of fires.

- Nettleton, H. I., M.S. (For.) '28, Mesclero, New Mexico. Harry has received a promotion from the Klamath Indian Reservation, Oregon to Supervisor of the Mesclero-Apache Reservation.
- Newcomer, Fred R., '31. Fred, whose address is Banner, Wyoming, is patiently awaiting an appointment in the U. S. Forest Service after passing the J. F. last spring.
- Olsen, C. C., '26, superintendent of construction on the Cascade National Forest with headquarters at Eugene, Oregon. He has a family of two children, one of each.
- Otter, Floyd, '29, is instructor in forestry at the University of Idaho School of Forestry. He has been granted a leave of absence for next year to attend the School of Forestry and Conservation at the University of Michigan, Ann Arbor.
- Patrie, C. R., '21, Nespelem, Wash., Forest Supervisor, Colville Indian Reservation.
- Phelps, Eugene, '27, 235, N. Long Ave. Chicago, Ill. Galen Pike says that Gene is (or was) numbered among the unemployed, the railroad business being on the bum. He took the civil

service examination for Junior Forester last spring. Gene's marriage was announced recently.

- Pike, Galen W., '27, M.F. Yale '28. Pike was promoted from Forest Ranger to Technical Assistant of the Black Hills National Forest, Deadwood, South Dakota. "My special job now is selling the idea of thinning stagnated WYP stands, and the results so far are very encouraging. Farmers are coming 50 miles to donate their work in return for the material removed, which consists of corral poles, fuel, and posts. The trees to be left are marked with paint. We are not prepared to justify thinning strictly on the basis of increasing growth and material removed; however, when reduced fire hazard and increased recreation values are considered, we feel that the increased expenditures will be more than justified."
- Plungian, Mark, M.S.(For.) '31, Potlatch, Idaho. Mark has been employed for the past year as Research Chemist for the Potlatch Forests, Inc.
- Potter, Arthur, Ex-'26, assistant supervisor, Boise National Forest, Boise, Idaho.
- Pugh, L. R., '26, Springston, Idaho is sales manager for the Russell and Pugh Lumber Co.

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Renshaw, E. W., '25, is a senior Forest Ranger on the St. Joe National Forest with headquarters at Avery, Idaho. His district made an enviable record in Region One for definite, determined and successful action in fire law enforcement last summer.

Rettig, E. C., '19, land agent for the Potlatch Forests, Inc., Clearwater unit at Lewiston, Idaho. He made his annual talk to the forest management class at the school recently to describe the selective cutting system in use around Headquarters, Idaho, where the company is operating on a sustained yield basis. He was recently elected President of the Lewiston School Board so is active in civic affairs.

Rodner, Jack W., Ex-'24, Blackwell Lumber Co., Emida, Idaho.

Rowe, Percy B., '28, M.F. Yale '30, 332 Giannini Hall, Berkeley, California. Last September "Perce" was transferred from Region 4, Ogden, Utah, to the California Forest Experiment Station, U. S. Forest Service. He is working on some phases of the problem of relations between forests and water supply, floods and erosion, and reports that he likes the work very much. On New Year's Day, 1932, Mr. and Mrs. Rowe be-

came the parents of their first child—a son.

Rutledge, R. H., Regional Forester, U. S. Forest Service, Ogden, Utah. Mr. Rutledge went to the University of Idaho in the more or less "gay nineties" before there was a School of Forestry, but he wishes to be counted among the forestry alumni nevertheless. He was a visitor in Moscow this winter.

Sajor, Valentin, '26, M.F. Yale '27, 1213 Constancia, Manila, Philippine Islands, Forester, Bureau of Forestry, P. I. He is Assistant Chief, Division of Licenses, and states he is now the father of three children.

Saling, Wallace M., '28, M.S.(For.) '29, is junior range examiner, U. S. Forest Service, Boise, Idaho, engaged in grazing survey work and management plans. We wish to congratulate "Smoky" and his bride upon their marriage which took place at Ontario, Oregon, October 24, 1931. Mrs. Saling was Miss Verland Penrod of Boise.

Sargeant, Howard J., '30, Junior Forester on land acquisition work, U. S. Biological Survey, Washington; D. C.

Schofield, William R., '16, Sacramento, California. Mr. Schofield is now timber expert with the

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newly created Tax Research Bureau of California. His work is to supervise the study of timber taxation and valuation throughout the state. The duty of the Bureau is to report to the legislature at each session the status of all forms of taxation in force with recommendations as to new forms of tax legislation necessary.

Schumaker, Frank, '31. Frank was at home last winter. A letter addressed to R.F.D. 3, Blackfoot, Idaho, will find him. He expected to be employed on some national forest this summer.

Shank, Paul, '31 was engaged in measuring snow on watersheds last winter. His headquarters are at McCall, Idaho c/o U. S. Forest Service.

Sharma, P. D., M.S.(For.) '22, Sharma is Technical Advisor to the forestry department in the State of Gwalior, India.

Sharp, Andrew G., M.S.(For.) '29, is employed as Wood Technician by the Spruce Falls Power and Paper Company, Kapukasing, Ontario, Canada. "A Wood Technician's work," he says, "consists of correlating mill and woods department operation so that the most economical results are obtained from both operations." Wood orders, deliveries, storage, and preparation fall under his technical supervision. From the time the tree is felled until it is finally made into paper, the yield and quality of pulp resulting from the wood must be traced. The S.F.P. & P. Co. is one of the largest newsprint mills in Canada and, in addition, has a large sulphite mill making unbleached sulphite pulp.

Snow, E. A., '25, is Technical Assistant, Arapaho National Forest, Hot Sulphur Springs, Colorado. He has charge of all timber sales, also the heavy road and trail construction work on the forest.

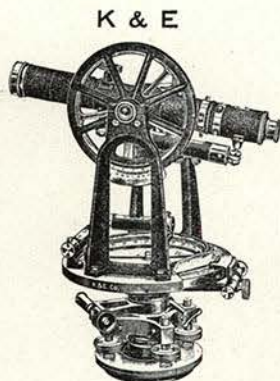
Sowder, Arthur M., '25, M.S.(For.) '27, School of Forestry, University of Idaho, Moscow.

Sowder, James E., '31, P. O. Box 564, Santa Cruz, California. His plans for the future, he reports, are indefinite.

Space, Jackson, '27, is Senior Forest Ranger, U. S. Forest Service, Pecos, New Mexico. He states he has been ridding his district of wild horses at the rate of over 400 in eight months.

Space, Ralph S., '25. Ralph has been promoted this winter from Principal Ranger to Assistant Supervisor of the Blackfeet National Forest, Kalispell, Montana.

Spence, Liter E., '28, M.S.(For.) University of California '30, is with the Idaho School of Forestry as instructor. He expects to spend the



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summer with the Intermountain Forest and Range Experiment Station on grazing studies.

Staplès, Howard W., '20, Assistant Cashier, First National Bank, Moscow, Idaho.

Stowasser, Clarence, '30, 525 West Summit Avenue, Coeur d'Alene, Idaho.

Taylor, John M., Ex-'30, Extension Forester for North Dakota since Oct. 16, 1931, with headquarters at Bottineau.

Toole, Arlie, W., '27, is now Forest Assistant, U. S. Indian Forest Service on Klamath Reservation, Klamath Agency, Oregon. He has Harry Nettleton's old job, that of looking after the timber sales on the reservation.

Ward, Ray, Executive Assistant, Colville National Forest, Republic, Washington.

Wheaton, Rodger G., '24, M.F. Yale '25, is with the Page and Hill Company, dealers in western red cedar poles, 733 Public Service Building, Boston, Mass.

White, Harold Z., '26, is Superintendent of Dry Kilns, Clearwater unit of Potlatch Forests, Inc., Lewiston, Idaho. Another wedding—Harold was married June 18, 1931 to Miss Marie Weisgerber of Lewiston. They are at home at 627 Sixth Street, Lewiston, Idaho. Harold always escorts the lumbering class thru the kilns each spring.

Wieschuegel, E. G., M.S.(For.) '29, is now Assistant Professor of Forestry and head of the Forestry Department at Ohio State University, Columbus.

Williams, Guy V., '27, is with the Mountain States Tel. & Tel. Co., Boise, Idaho.

Woodward, Doren E., '30, Junior Forester with the U. S. Biological Survey with headquarters at Washington, D. C. Doren is in the Division of Land Acquisition along with "Bill" Krummes, and "Shorty" Sargeant. His work last winter was on the upper Mississippi wild life and fish refuge above Rock Island, Illinois. Land acquisition work, he states, brings up plenty of odd and interesting situations.

Yates, Donald, '13, 3207 Franklin Ave., with the Exter Investment Co., Skinner Bldg. Seattle.

This is the forest primeval  
Where a small Coleopterous weevil  
Effectively dines  
On the murmuring pines  
And the hemlocks — a terrible evil.

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