

FORESTRY KAIMIN

1961

Photo by
Cancy Gordon,
Botany Department,
Montana State University



The Montana Forestry Club

of

The School of Forestry

Montana State University



MAIN HALL

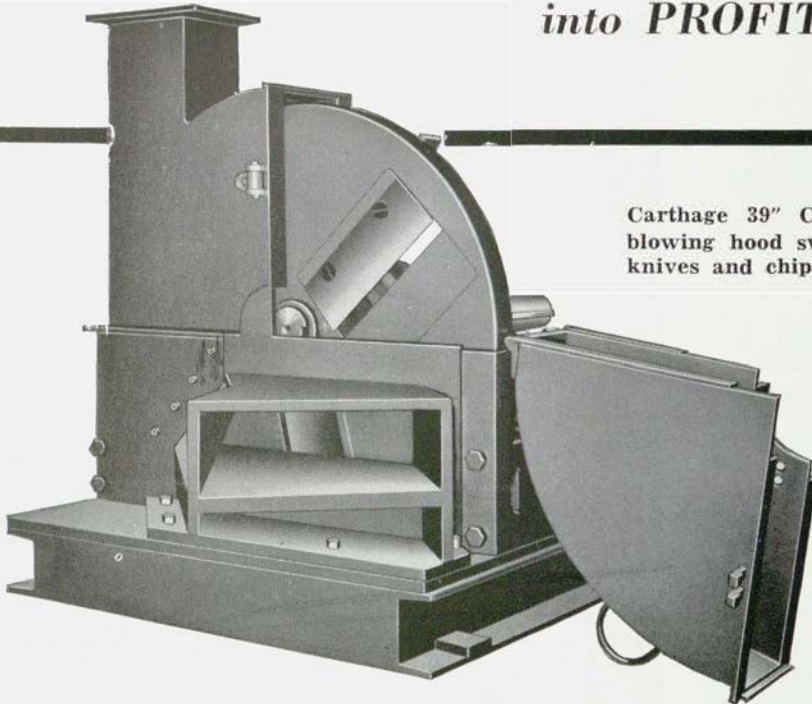
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The

1961 Forestry Kaimin

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"Half a Century of Progress in Forestry"

This year's Forestry Kaimin has as its theme "Half a Century of Progress in Forestry". On first reading this, you will probably deduct 50 years from 1961 and wonder just what of particular importance to forestry came about in 1911. Well, nothing of particular importance did come about. We have picked this year's Kaimin as the terminus of the half century merely because it seems to be about 50 years from the center of the spread of events—like a shotgun pattern, so to speak.

Some of these events were the legislation for the Forest Reserves in 1891, the creation of the Division of Forestry in the Dept. of Agriculture in 1881, the transfer of the Reserves to the Dept. of Agriculture in 1905, the Weeks Law of 1911, the legislation for the National Parks in 1916, and the Taylor Grazing Act of 1934. Of course, the School of Forestry at Montana State University went into full swing in the early part of this period, and the first Forestry Kaimin was published in 1915.

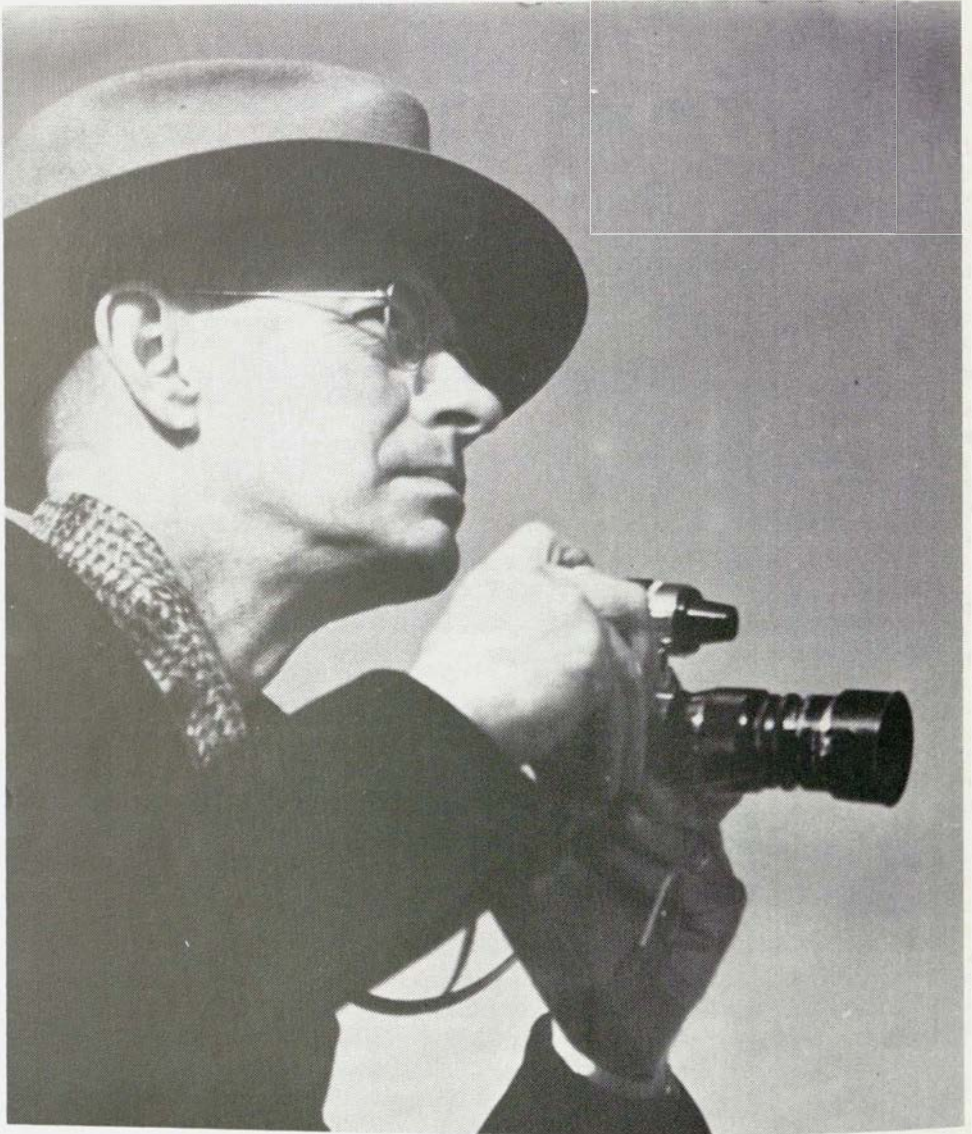
From these beginnings Forestry has grown into one of the greatest industries in the country. "Multiple Use" is an accepted principle of management and "Sustained Yield" is the aim of most of the country's major timber producers—not to mention the application of it to water, wildlife, forage, and recreation.

Not all of this growth has been painless, however. Many of the uses of our forests are in conflict with one another when applied on the same acre at the same time. For the most part, though, these differences have been settled satisfactorily by the foresters concerned with them. Some of these problems remain to be settled, and it will be up to the students of today to iron out the differences of tomorrow. Good luck at it!

To more or less categorically present this panorama we have included articles by several of the members of the staff of the School of Forestry.

These articles cover special fields within forestry and we hope they are of interest to you. The dedication for this year, which follows on the next page, we feel is especially appropriate to our theme.

Dedication . . .



This year's Forestry Kaimin is respectfully dedicated to Mr. K. D. Swan. Mr. Swan had been with the Forest Service in Region One for many years prior to his recent retirement. During this time, in his capacity as photographer, he photographed and recorded many of the changes which have taken place during this era of progress. It is doubtful if anyone has seen more of Montana and North Idaho than he has, and certainly no one has photographed more of it. His wilderness photographs will be increasingly appreciated as time passes, for many of those areas of primitive country have paid the price of progress. The Forestry Club has on several occasions been privileged to see some of Mr. Swans' slides, and they are an experience to be remembered.

Mr. Swan tells his own story in one of the following articles.

The Record of Progress . . .

"Photographic Points"

By K. D. SWAN

We know that in the course of events slight matters are often caught up by the imagination and enlarged to a size out of all proportion to their importance. Such was the case in the incident of the writer's famous hat. In the early twenties this hat appeared in a picture of a group of white pine trunks, where it had been hung to indicate the size of the boles. Some twenty years later the same hat—a little battered perhaps by the vicissitudes of many years in the woods—was shown in the same spot in a followup picture. The coincidence was mentioned casually in hearing of the editor of the Northern Region News, who being short of items at the time, gave heed to the incident and used it as a space filler.

The response from the field was immediate and hearty, even to offers of financial assistance in obtaining a new headpiece. And so this old stiff-brimmed Stetson, which cost me \$5.00 in the first place, probably did more to stimulate interest in Project Photographic Points than many a circular letter sent to the field by the regional office!

What is a photographic point? Briefly stated it is an established point, carefully chosen, from which pictures can be taken at intervals to show changes that have occurred during the time lapse between shots. These pictures are often of great value in showing the growth of plantations, the establishment of reproduction on old burns, the changing aspects of timber sale areas, the rate of decay of stumps or fallen timber. It is a fascinating project, and the finding of spots from which original pictures had been taken (with no thought at the time of a follow-up) gave me more thrills than any other branch of forest photography during my years with the Service—except possibly the taking of wilderness views. Cruisers in the Lubrecht Forest may have noticed in a few places metal posts with bronze caps stamped PP followed by a number. These mark photographic points established years ago as a part of this program.

In 1909 the much-publicized Lick Creek timber sale was in progress on the Bitterroot National Forest. This operation, which was intended as a sort of pilot project for future sales, was in charge of W. W. White, one of the pioneers in the early years of timber management in this region. I suspect that during the progress of this sale he spent most of his waking hours among the trees that he loved; certain it is that he lived in a cabin on the area and became well acquainted with every aspect and feature of the topography in the vicinity. The Big Blackfoot Milling Company, a subsidiary of Anaconda, purchased the timber and did the logging according to Forest Service specifications. For years the sale area was considered a sort of show window of conservative cutting practices and logging methods.

At this time an official Forest Service photographer named Lubkin was sent out from Washington to take pictures of the sale. In those days the standard

camera for such work was a $6\frac{1}{2} \times 8\frac{1}{2}$ view box using glass plates. This man got an excellent series of pictures, which have been used extensively throughout the years. But no record of the points from which the views were made was kept at the time, as far as anyone knows.

During November of 1925 White and I took a set of the original pictures and went to the area to see if we could locate the points from which they were taken. The quest was extremely fascinating. White had a good memory and was able to spot, in a general way, the locations we were after. Peculiar stumps and logs were a great help. Just when we might seem baffled in the search for a particular spot, something would show up to give us a key. The clue might be the bark pattern on a ponderosa pine, or perhaps a forked trunk. The camera we were using was nearly the same as that used for the original pictures, and when a spot was once found it was a simple matter to adjust the outfit so that the image on the ground glass would coincide with the print we were holding. It was an exciting game, and we felt it was more fun than work. In a few days we had located all but one of the points—sixteen in all. Later the points were marked by iron posts which were tied in to a Land Office corner by compass and pacing. The traverse was platted on a large scale map for future use. Photographs have been taken at intervals ever since.

In the winter of 1923 I had the opportunity of taking pictures of logging by the Beardmore outfit which was working at the time on the Kaniksu National Forest north of Priest River, Idaho. In those years, winter transportation in that country was by horse and sled; car travel, off the main highways at least, was unthought of. And so when I met Howard Drake, then in charge of timber sales on the Kaniksu, he told me Hank Ogston, government scaler on the job, would meet us with the mules after lunch at the Priest River Hotel. That he did. The mules were hitched to a small sled, and after wrapping ourselves in various robes and sugans we started on the 18-mile drive to the notorious old Tunnel Camp of the Beardmore operation. The name "Tunnel" came from the fact that the main building was long and tunnel-like, with few windows. Few woodworkers of the present would live and work under the conditions then found in many of the camps.

Logging on this sale was by trail chutes; strings of logs were hauled along the chutes by horses to a terminus a few chains above camp. Here they were loaded by a jammer to sleds which carried them over an iced road to decks on the bank of the West Fork of Priest River to await the spring drive. The top-loader at the cross haul was the king of the outfit—a Paul Bunyan whose bellow could be heard far back in the woods. Chain saws were not dreamed of then; trees were felled with crosscut saws pulled

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Photogrammetry . . .

Paul's Big Eyes

By **FRED L. GERLACH**

As the mythical, almost legendary, Paul Bunyan made his way from Bangor to Portland "letting daylight into the swamp", we have imagined him to be a virtual giant surveying his forest domain near and far from his great height.

We like to believe that Paul was truly a dedicated forester attempting to employ his immense abilities and his best knowledge to use, to renew, and to perpetuate the use of his vast natural empire. Perhaps as Paul surveyed his wilderness, he was trying to plan and manage the forests for the little fellows who would soon follow. If Paul would have had the time to take a day off in 1887 and step over to Iceland, or better still to Germany, he might have seen a young little forester who had ideas as big perhaps as Paul himself. As the young forester (I shall call him Hans) looked at the forested hillsides, he must have thought "what an advantage it would be if we could actually see all of this forest we are trying to manage." Being young and a thinker (sometimes called dreaming), Hans' mind produced an original idea. Why not photograph this forest from the air? This he did, and he obtained some rather surprisingly good photographs. He could see this stand of spruce here, the pine here, and the mixed hardwoods over there. For some reason Hans' idea lay dormant for a long time, while Paul went on with his work. It might be that, once the foresters were able to see the forests and the trees, they didn't know what to do with them, or it may be that Hans provided only one big eye, whereas Paul had two and therefore better vision.

Some of the little fellows got together in the 1920s and gave the foresters two "big eyes", but we have to admit that the foresters didn't really begin to see until after 1945 when they were given two big eyes that were better than Paul's ever were. Paul wasn't seeing things too clearly by then anyway.

Today, through the development of aerial photography, photogrammetry, and photo-interpretation, every forester has "big eyes" available to him. They are better eyes than Paul had because they are more accurate, they provide total coverage of the land area from a vertical viewpoint, and they record current forest conditions for use now or in the indefinite future. All general use forest maps are compiled using photogrammetric methods, and they are more accurate and economical than those maps which were previously prepared utilizing solely a combination of ground surveying methods. Due to the new accuracy and economy of aerial photographic operations in the last decade and a half, vertical aerial photographs for forest use have all but replaced oblique photographs, achieving a standardization of viewpoint and subsequent use which did not exist prior to 1945. An aerial photograph records forest conditions as they exist at an instant of time. Therefore, they become outdated for many current uses with the passage of time demanding new coverage periodically. Old photographs, like old

foresters, never die. Although their current value may fade away, old photographs have historical value and may provide a new insight into forest management practices.

The efficiency and accuracy of modern forestry is enhanced through the use of aerial photographs by the land manager in all of his varied activities. The manager, then, must understand aerial photogrammetry and photo-interpretation well enough to apply them to their fullest practical extent, and to have confidence in his results or the results of someone else utilizing photographs. Photogrammetric understanding requires a knowledge of the geometry of the perspective projection. An understanding of photo-interpretation requires, first, a knowledge of photographic representation and, second, a correlation of the photographic view with actual conditions on the ground, which is largely based on the foresters' background in the natural and physical sciences. Repeated use of photographs as a source of quantitative and qualitative information results in confidence and, subsequently, continuous and effective use by the forest manager.

In every day use, photographs provide the field forester with a means of orienting himself and his employees with new terrain and the job at hand. This possibly is the greatest initial value of this tool. An orientation utilizing photos and maps should precede any field activity, whether the job is logging road location, cruising, timber sale planning, telephone line maintenance, recreational area planning, fire suppression, trail construction, seeding, planting, or a weekend walk in the woods. It is also a fact that the photographs can be valuable while in the field.

A second every day value is found in photo-reconnaissance, which differs from orientation by being more specific. In reconnaissance the stereoscopic coverage is examined for certain characteristics. An example is found in forest road planning. First, we know that we must locate a road from one point to another for a given use or combination of uses. Then the area between the points would be examined for specific characteristics relative to management practice, operability, construction cost, and operation cost. The photo-reconnaissance selects strips of ground representing preferred and alternate routes for subsequent examination on the ground, thereby eliminating much of the area from ground examination.

A reconnaissance may be true photo-interpretation in the sense that photo-interpretation is an analysis in both quantitative and qualitative information. In road reconnaissance, distance and elevation differences can be measured providing quantitative information. Rock outcrops, marshy areas, and unstable slopes can be recognized thereby pro-

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Land Use Policy Change in the U. S. Over the Past 50 Years

By DR. ARNOLD W. BOLLE

Land Use policy in the United States has been in constant flux over the past fifty years and the outlook is certainly for continued change. Fifty years ago the Conservation Movement was at its peak under the leadership of Theodore Roosevelt and Gifford Pinchot. We credit these men for advances in many fields of natural resources: forestry, watershed management, flood control, power development, wildlife preservation and management, reclamation and irrigation, recreation and others. Most of these programs did not begin at this time but had their origins in earlier times. The Roosevelt-Pinchot era was the culmination of at least fifty prior years of policy development.

It is difficult to assess or even identify land use policy changes in the United States over this time span in the brief space permitted here. In one sense we cannot be said to have a policy but many policies. There are federal policies and state policies as well as policies of private land owners. There are also differences in policies between federal agencies and between state agencies just as there are between private land owners. Certain patterns do emerge and become accepted in all sectors with some modifications, certain landmark acts are passed in response to public pressures and so the history of land use policy is marked by acts of congress in the natural resource field. These acts do not always indicate unanimity nor do they guarantee against future change. Changing conditions call for reassessment of policy and change, we are told, is continuous.

Our land use policies do not exist in a vacuum but are directly related to the activities of the nation as a whole. Our natural resources represent part of our social capital which produces the products, services and satisfactions demanded by our people over time. As these demands change, so does our use of resources change.

Changing economic, social and political conditions have brought many changes in our land use programs and policies over the past fifty years. Two world wars, the depression and growing concern with national growth have marked this period and are reflected in land use policy.

The world wars caused a tremendous drain on world resources. The continuing call for a high level of defense prescribes a continuing high level of resource use as well as the maintenance of a high level of reserve. Survival is our first national objective.

Fifty years ago the world was different and so were the problems in America. We had come to the end of our greatest period of growth. Spurred by a policy of turning our resources over to the greatest number of citizens, we had expanded to the Pacific and filled up most of the gaps between. In the latter decades of the nineteenth century the frontier was closed, the resources were distributed and certain inequities were obvious. There had been great accumulations of wealth and power and these threat-

ened to suffocate the freedom which we consider the basis of our democracy. "The greatest good to the greatest number" was a welfare objective calling for government action to provide greater participation in the wealth from our natural resources. The establishment of national forests, national parks, game reserves, power site withdrawals and so on were directed at this goal. The welfare objective is still an important concern to us but it is not the overriding objective it was fifty years ago.

The Great Depression provided the second great impetus to the Conservation Movement. The cure of unemployment became the nation's number one objective. Government action in providing employment led to programs in public works, many of them in the field of natural resources. While unemployment is less important problem to-day, it remains an important concern. The Employment Act of 1944 commits the government to maintain a high level of employment and to take action against recession. This act also established the Council of Economic Advisors whose main concern is maintenance of a stable growth rate.

Growth, next to national defense, can be considered our principal concern to-day. However, we cannot focus on it to the exclusion of other objectives. Concentration on growth may lead to unreasonable inflation, so we must consider stability. Unemployment is still an important concern and the welfare objectives are involved in every other goal. Meanwhile, increasing population, income and leisure time lead to greater use of resources and continually changing patterns of use. As we mature, we are moving from a production to a consumption society. Consumers are demanding a different type of use of our resources. Mere production of goods is not enough, as a nation we are beginning to specify "what" we want instead of being content with "How much". This is behind the growing demand for recreation use of land. As we continue to grow, the emphasis is shifting from the size of the gross national product to its composition.

Fifty years ago Theodore Roosevelt had been out of office for two years, but the Conservation Movement was still carrying forward. In 1910 the Forest Service was four years old and the Montana Forestry Department two. The national parks were being administered by the army. The states were clamping down on game violators, especially market hunters, and the federal government was setting up refuges including the National Bison Range in 1908. The Reclamation Bureau was eight years old and certain people were still rankling over TR's veto of the Muscle Shoals license. Activities in 1910 show the continued pace of conservation innovations: the forest products laboratory was built in Madison, Wisconsin; the Pribiloff Islands were established as a seal preserve; the president was given "temporary" authority to withdraw lands from entry (he still

(Continued on page 69)



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Fire Control . . .

Progress of Forest Fire Control During the Last 50 Years

By ROBERT W. STEELE

Fifty years takes us back to the early days of Forest Administration. The first job that administrators of forested lands had was that of protecting the lands from the ravages of forest fires. This custodial duty consisted of devising and developing ways of detecting and suppressing fires as quickly as possible, for it was immediately realized that the job of fire control was much easier if fires were small than if they became large. This made early detection and rapid travel essential.

At first, fire detection was accomplished by placing look-outs on mountain tops where they could watch over a given area and report the start of fires. A few primary look-outs were placed on the most strategic mountain tops so that a skeleton network of fire detection stations would be afforded. It was noted that many fires became fairly large before they were reported. The result was that forest districts were then completely covered by the look-out networks. "Seen area maps" were made from numerous candidate mountain tops and from these maps the most efficient places were selected for look-out sites. Cabins were then constructed on these sites and they were used for years and years and still are.

Since World War II, with the rapid development of aviation in this country, aircraft have been used for fire detection. This use was limited at first because low level flying over mountainous country was dangerous. However, as light, high powered aircraft became available, fire detection from the air became more popular. When this happened, it was thought that air detection would completely replace the look-out system. Such was not the case. It was soon found that certain areas, where the risk of man caused fires was great, needed the constant surveillance of the look-out rather than to rely solely upon coverage from the air, which amounts to but a few minutes each day.

A combination system evolved whereby both look-outs and aircraft observers working together formed the fire detection team. This system is in use at the present time. It consists of a primary network of look-outs that are strategically spaced over a given forest district to provide basic detection plus periodic flights over the area. The look-outs are chosen from the standpoint of nearness to high risk areas as well as to being well scattered over the area involved. The flights are planned to cover areas not too well seen by the look-outs and to follow up reports from look-outs.

The use of aircraft makes this a very versatile system because the planes can be used to observe more closely areas suspected by look-outs to contain fire, they can be used immediately after thunderstorms to seek fires started by lightning, and they can be called upon for emergencies easily. The combination look-out: air patrol detection system is being constantly improved through use. It constitutes

one of the major advances made in the technique of forest fire control during the past decades.

The job of fire detection is only part of the story, for after detection comes the problem of transportation of men and tools to fires. At first, this job was done on foot or on horseback over forest trails and across country. Trails were improved and new ones built, which speeded up travel somewhat, but there still remained hundreds of thousands of acres of forest land to be protected from fire where only a few trails existed.

The transporting of men and equipment was made somewhat easier when fire roads were constructed. The miles of roads constructed for logging transportation also aided greatly in fire transportation. Logging roads are continually being built further and further back into timbered areas. Furthermore, such roads, existing in areas of high risk and hazard, become very useful as new fire transportation routes.

Transportation of men and equipment also followed, and kept pace with the development of aircraft. The Smokejumpers are a prime example of using fixed wing aircraft for delivering men and small amounts of equipment quickly to fires. Techniques of dropping men and cargo into timbered country have been improved during the last two decades. This development has been principally at Missoula, Montana. It has progressed to the point where only the most rugged, snag studded country remains inaccessible to air dropping.

The use and adaptation of the helicopter for transportation of men and equipment to fires is also increasing. This use is governed chiefly by the physical limitations of such aircraft due to elevation above sea level. This machine also has great usefulness in scouting activities on large fires.

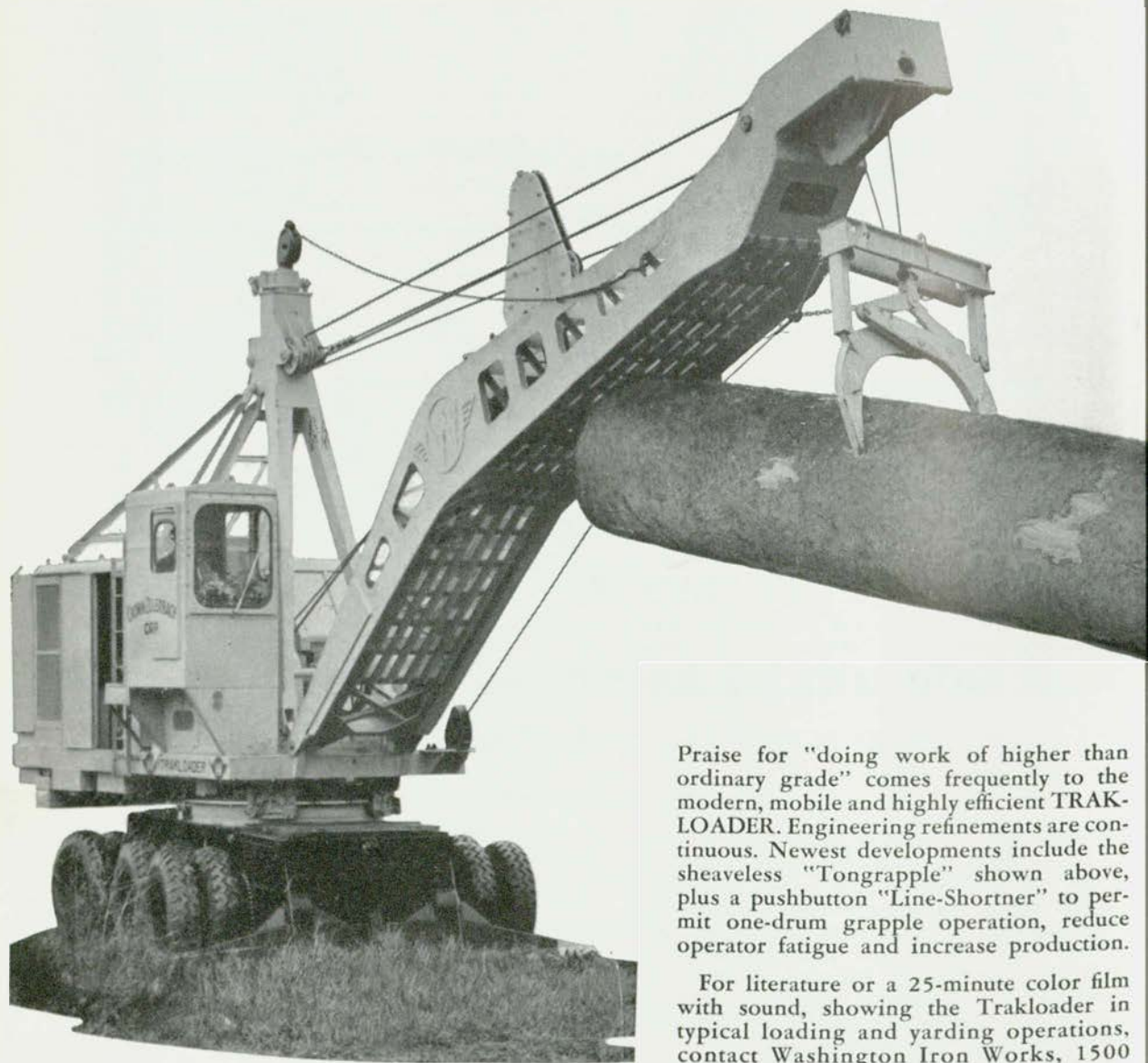
Forest fires are generally stopped by building a trail around them to rob the oncoming fire of fuel. Fire line building over the past fifty years has also shown considerable advancement. This progress has been accelerated in the past twenty years, however.

All fire lines used to be constructed by hand, but following the invention of the caterpillar type tractor with the bulldozer blade attachment for the front, a good share of the fire lines are now constructed with bulldozers. The bulldozer has proven to be a very versatile and worthwhile machine for fire line construction because of its ability to dig and maneuver over sloping as well as flat grounds. In all fuels, and on all but the most severe slopes, this machine is widely used for fire line construction whenever it is possible to get the machines to the scene of a fire. In fact, the use of dozers has become so accepted that it has become the first consideration as soon as a fire reaches a size that requires very much line

(Continued on page 71)

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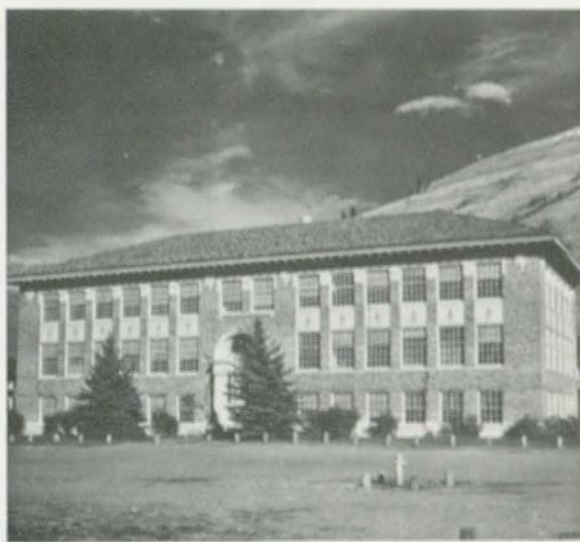
The School . . .



ROSS A. WILLIAMS
Dean



"The Shack"



"Pinchot Hall"

The School of Forestry at Montana State University 1913-1961

By ROSS A. WILLIAMS, Dean

Prior to the establishment of the School of Forestry at the then University of Montana, in 1913, special three-month "Short Courses" in forestry were offered in 1910, 1911, and 1912. The first had enrollment of 42 hand picked United States Forest Rangers from 22 National Forests. The University provided classroom space in Main Hall and two instructors; one from Botany and one from the department of engineering. The remainder of the faculty was recruited from the Forest Service Regional Office which was established in Missoula in 1908. From the standpoint of our present economy, expenses were reasonable. Registration was \$11.00, matriculation \$5.00, athletic activities, \$1.00 and \$5.00 for breakage and materials. Board and room could be obtained in the vicinity of the University for \$25.00 per month.

in 1911. This was widely advertised, apparently with the intent of attracting students from the East. The program included extensive travel through Region I and on the Pacific Coast as far south as San Francisco.

The Legislative Act of 1913 which officially established the School of Forestry as a unit of the University was brief and to the point. The legislators intended that the annual appropriation of \$6,000 would care for all of the expenses necessary for the operation of the School including its faculty. The first Dean was selected from the special lecturers provided by the Forest Service for the three previous Short Courses; Dorr Skeels, then supervisor of the Kootenai National Forest, became the first dean. Dean Skeels was a graduate of Michigan State College and specialized in the field of logging engineering.

(Continued on page 71)

Encouraged by its first attempt in forestry instruction, the University offered a Summer Session

FORESTRY SCHOOL FACULTY . . .

Melvin S. Morris
Professor, Range Management, teaching and research.



O. B. Howell
Assistant Prof., Forest Recreation, teaching.



William R. Pierce
Assistant Prof., Timber Management, teaching.



Lawrence C. Merriam, Jr.
Assistant Professor of Forestry, teaching and research.



John R. Host
Assistant Professor. Surveying, Mapping, Teaching



Don Baldwin
Director of Forest Nursery



Robert W. Steele
Assistant Prof., Forest
Fire Control, research
and teaching.



James L. Faurot
Assistant Prof., Engi-
neering, teaching.



Frederick L. Gerlach
Instructor, Photogram-
metry, teaching.



Vollrat von Deichmann
Asst. Prof. of Silvicult-
ure.



Gordon D. Lewis
Instructor, Forest Eco-
nomics, research and
teaching.



Richard D. Taber
Associate Prof., Wild-
life Management,
teaching and research.



Arnold W. Bolle
Associate Prof., Silvi-
culture and Conserva-
tion, teaching and re-
search.



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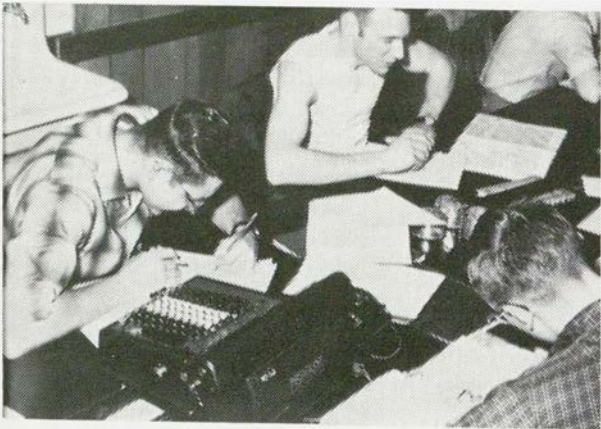
Cheston eyeballs in some Douglas Fir in Wood Tech Lab.



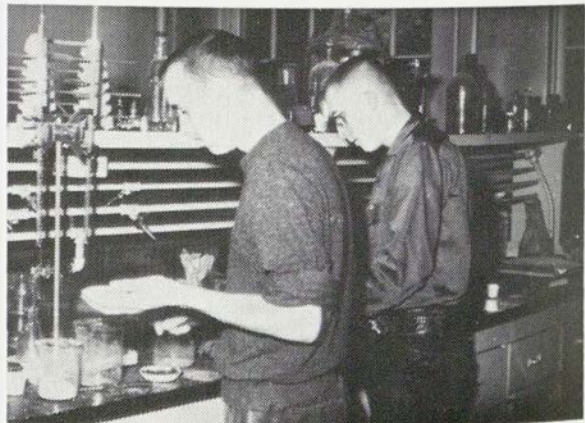
Fred Gerlach instructs an Aerial Photo Interpretation Class on constructing a map with photos.

A number of hours are spent in varied laboratory work, especially for the upperclassmen. Beginning at the freshman level the future forester will examine the basic structures of plants under the microscope and learn to work with chemicals in the chem lab that he feels would tax Einstein's ability. On the sophomore level he will spend a number of hours analyzing the components of soils, not to mention walking on it quite a bit in surveying lab. That spring will be spent at the School Forest; and ecology labs and reports will consume a good deal of his time, as will insects (studying them), more surveying, and mapping, cruising, and scaling. The junior year starts right out with a number of hours to be spent pounding on the calculators in mensuration. Aerial photo

problems and analysis of germination percentages have to be done, not to mention figuring the grazing capacity of the range country up the Blackfoot. A few of the fellows also spend time on comparative anatomy and ornithology in the wee hours of the morning. The seniors, thinking that they are over the hump, come back to school for a surprise. Valuations, management, and engineering all have ticklish little problems to be worked; and there are those flow charts of the local sawmills that have to be made. Toward the end of the last year the boys split up with the stumpjumpers going up to camp for more cruising, road location, and a management plan; while the grass gremlins go south to check the condition of the range in a lot of country.



Mensuration Class—Determining rotation and allowable cut.



Analyzing soil samples in the soils lab.



Montana State University has one of the largest and finest libraries in the West. A part of this library is located in the Forestry School and is known as the Forest and Conservation Research Library. Through a co-operative agreement with the Department of Agriculture the extent of research material available to students is virtually unlimited.



O. B. Howell explains some aspects of plane table mapping in a Forest Recreation class.



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Meanwhile . . .

A Number of Students Find Time to Take Part in the Many Activities of the

FORESTRY CLUB

The period of '60-'61 has been a time of well being for the Forestry Club. Membership in the club reached a peak in the fall, with more than 200 moose-kissers in good standing. During this time, the treasury had in excess of 1200 dollars. Even old timers can't remember anything that approached this figure.

The spring of 1960 started off with a fine spring hike followed by the AWFC Conclave led by vice-president, Sam Rost. The Montana six placed first in the Oregon contests and Charlie Travers came home Bull-of-the-Woods. Later in the quarter, Conservation Week, led by co-chairmen Travers and Jacobson, met with great success both here in town and at the School of Forestry.

After a good summer, the foresters returned to school more active than ever. Dave Wedum and Ray Brown headed up the Freshman weekend and Fall Smoker. Over 150 attended. The highlight of the fall quarter was, of course,

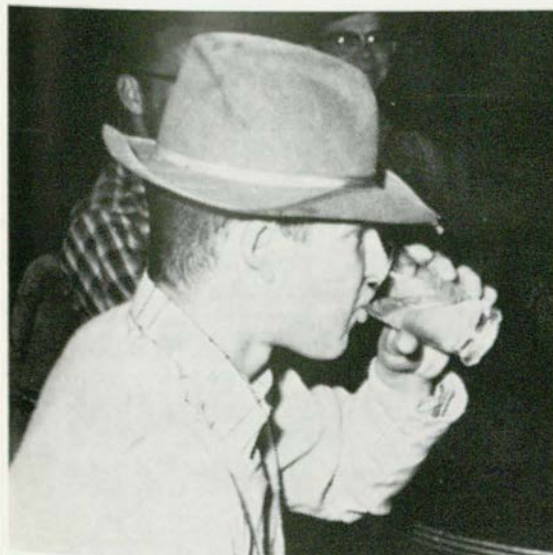
the Foresters' Ball. Led by Chief Push, Bob Witt, the wood ticks again outdid themselves in the 44th annual Ball. After the Ball was over and done with, it was discovered that Bertha was the worse for wear so she was shipped to Whitefish for a major overhaul.

By the end of fall quarter, a move was made by the club to establish a practical course to better develop our woodsmanship and forestry experience. Cooperation with local industry and public agencies enabled this course to be presented winter quarter.

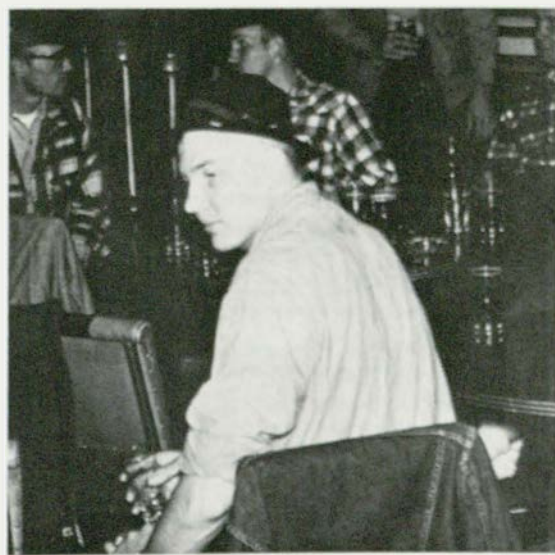
The Forestry Club is an organization that has left us all with memories that will not soon be forgotten. Though many individuals may stand out as leaders, it is through the combined efforts of all that the Club exists and will continue to exist.

Good luck,

Dave Morton



President Dave Morton



Vice-President Bob Bosworth

How It Works . . .



The Exec. Board—Back Row, L to R: Carson McDonald, Craig Lindh, Don Heiser, Whitey McGill, John Moorhouse. Front Row, L to R: Joe Remick, Art Tower, John Burns, David Morton, and Bob Bosworth. Not pictured: Dick Welch, Bill Bivin, Bob Storch.

The Association of Western Forestry Clubs . . .

The AWFC was first founded in 1937 through the efforts of the Montana Foresters. Its purpose was to provide a common meeting ground for the foresters in the various forestry clubs in the West so that they could interchange ideas, and promote closer relationships between students and professional foresters. During the war the AWFC was inactive but was reorganized in 1952 with Utah State ramrodding the project. Since 1952 the AWFC has held its annual conclave, alternating between the member schools the job of being host to the event. During the conclave the representatives discuss various topics including curricula, yearbooks and publications, activities, and so on. Following the discussions the field events are held and include such things as power sawing, single and double bucking, pole climbing, burling, axe throwing, and this year a new event innovated by CSU—a multiple

use quiz. The conclaves have been looked forward to each year by the Montana Foresters and I am sure the other member schools also enjoy them not only for the fun of attending, but for the many good ideas which come from them.

The member schools of AWFC are as follows:

Montana State University
Washington State University
University of Washington
Colorado State University
University of British Columbia
Arizona State College
University of California
University of Idaho
Utah State University
Oregon State College
Humboldt State College
Boise Junior College (Associate member)



Forestry Club Meeting—the bull flies thick and fast at times but we get a lot done.

REPORTS FROM THE FIELD

Wes Cheston says that the Sasquatch crop in B.C. should be good this year. He also feels that the recent sightings in the Swan Valley by Sam Rost were some of the B.C. herd that strayed south.

The hat is being passed for the Jake Jacobson Thermos Bottle Fund. Proceeds will be used to buy Jake a twenty year supply of thermos bottles. Give generously.

Jerry Parker says he is considering buying another hardhat.

Bill Stewart has gone into the meat marketing business. Venison is for sale cheap—special low rates on hamburger.

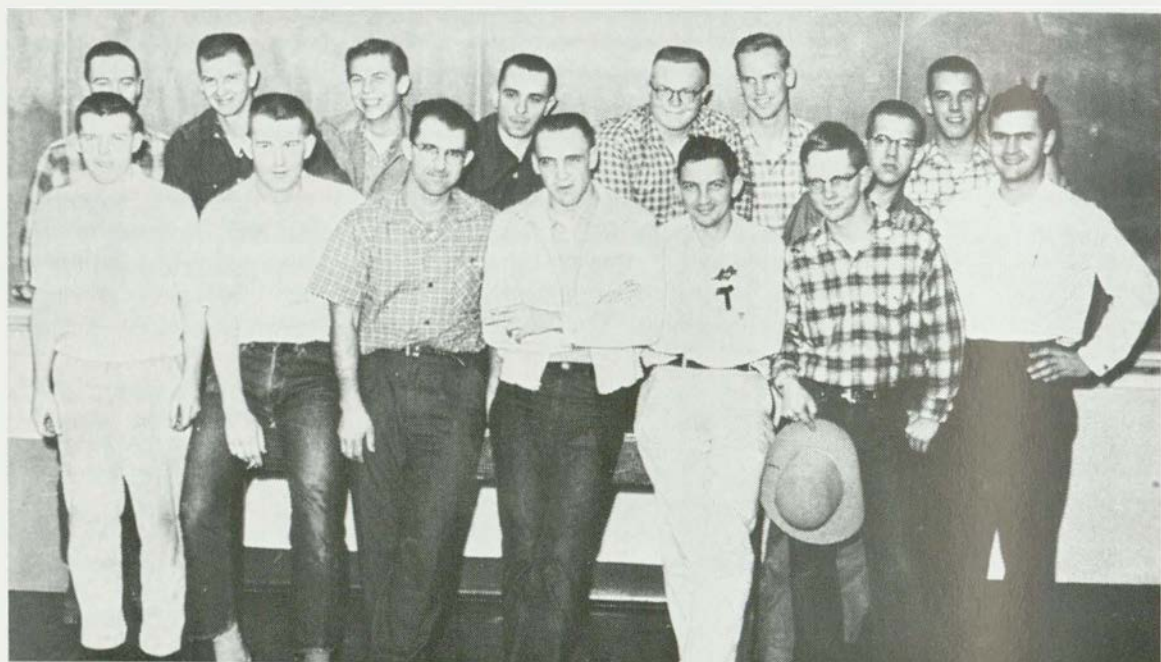
Tom Silver reports that the fishing in Duck Lake has been poor. "Take me back to the Cash," says Tom.

Don Heiser has decided that the Sunlight country is not the place for him. "Rains too damn much," says he.

Charlie Travers has completed his exploitation plan for the wilderness areas. He says it involves a delicate balance between clear-cutting, burning, and mining what is left.

Charlie Fudge feels he should have been the first Astronaut. We agree that his gastronomical feats are quite something.

The Mangy Crew . . .

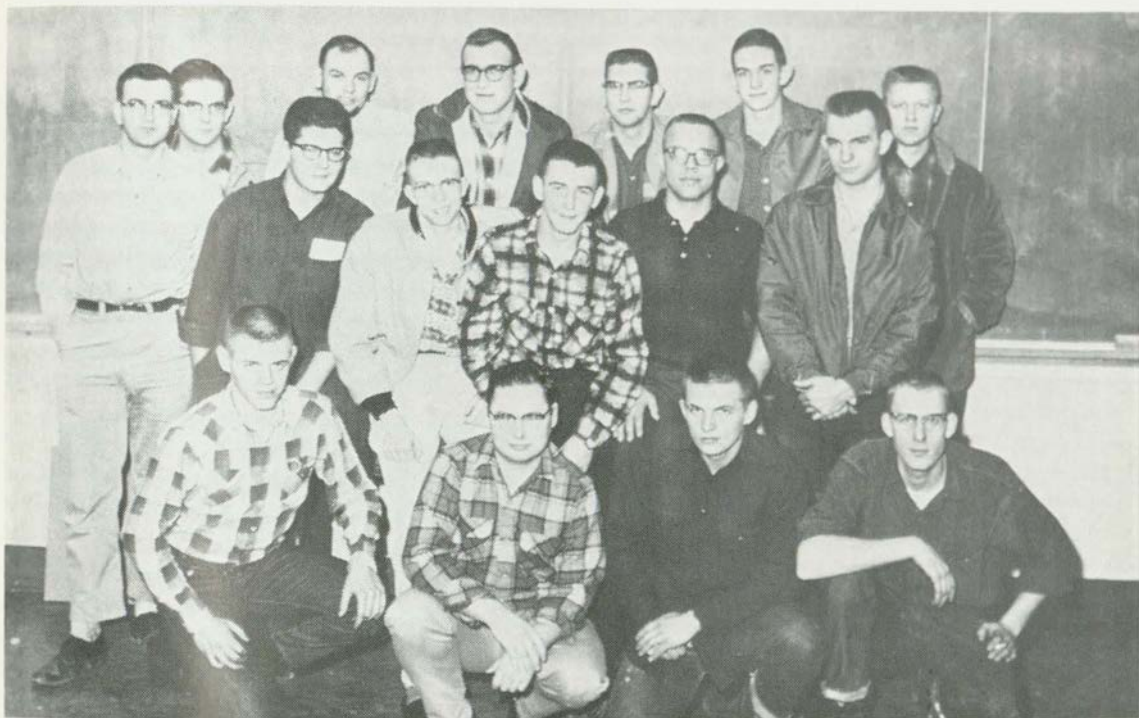


Senior Club Members—Back Row, L to R: Burns, Morton, Meek, Byrne, Heiser, Frohne, Dobson, Lindh. Front Row, L to R: Mosier, Parker, Travers, Rost, Jenni, Welch, Cheston.

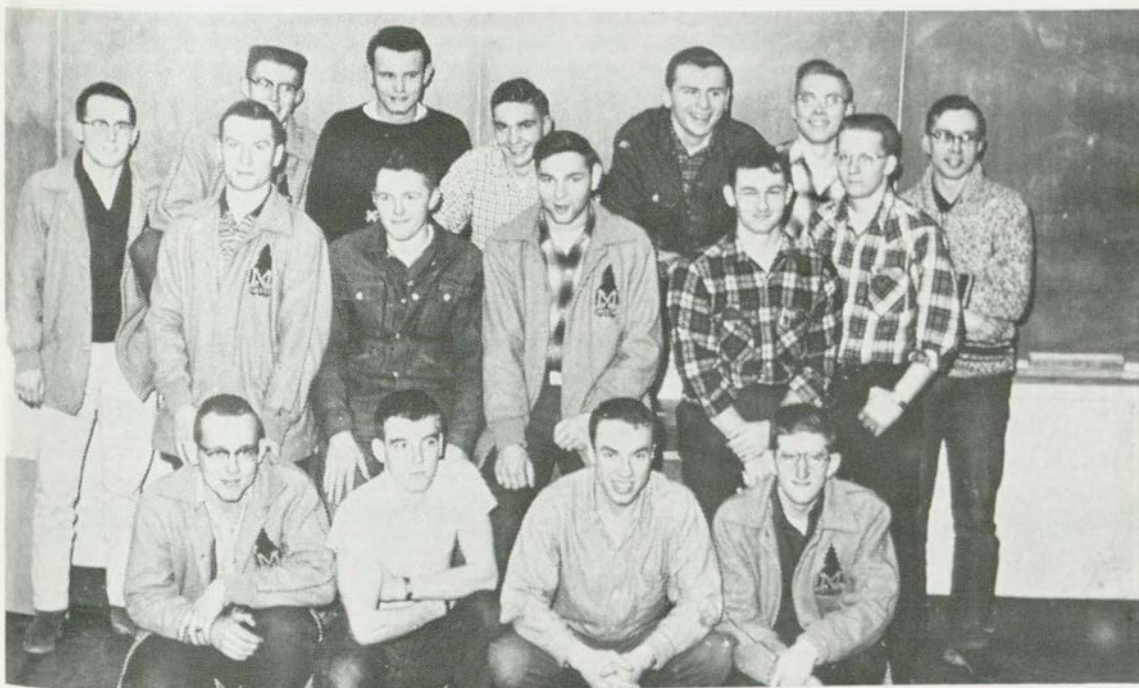


Junior Club Members—Back Row, L to R: Tower, Bosworth, Mershon, Christian, Packee, McDonald, Butts. Middle Row, L to R: Roginski, Bivin, Lenove, Stephenson, Carlson, Poulsen. Front Row, L to R: Guilmette, Inman, Broatch, Pinney, Bergenhier, Horung.

And Then Some . . .



Sophomore Club Members—Back Row, L to R: Wachsmuth, O'Connel, Remick, Schield, Hartley, Fauss, Olson. Middle Row, L to R: Hamilton, Buentemier, Goetz, Billings, Storch. Front Row, L to R: Gear, DeLude, Rusin, McGill.



Freshman Club Members—Back Row, L to R: Hunter, Cavey, Vick, Oldeburg, Manz, Killick, Morgan. Center Row, L to R: Gilbert, Joy, Guelff, Rutledge, James. Front Row, L to R: Frady, Conners, Horne, McDonald.

1960 CONCLAVE

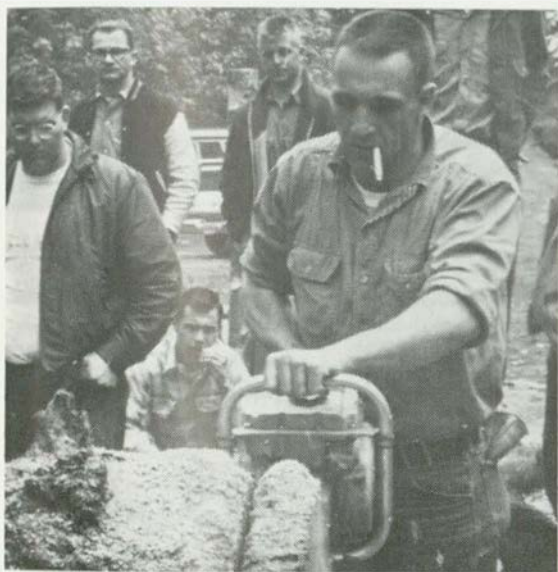
The 1960 Conclave was held at Oregon State College in Corvallis, Oregon and was attended by 13 Montana Foresters and Foresterettes. Sam Rost, as the Montana AWFC Vice-president headed the delegation which consisted of himself, Wes Cheston, Chuck Travers, Jake Jacobson, Bob Bosworth, and Dean Rosera. The unofficial delegates consisted of Dave Morton, Whitey McGill, Liz Bardes, Karen Ulner, Art Tower, Don Heiser, and John Burns. The discussions were informative and provided the basis for several club projects this year. In the field day events the boys from Montana came out on top with Charlie Travers leading the show for the Bull of the Woods award. We would like to take this opportunity to thank the Oregon Foresters for a fine conclave and we are sure that the rest of the AWFC member schools are also looking forward to the time when Oregon again hosts the event.



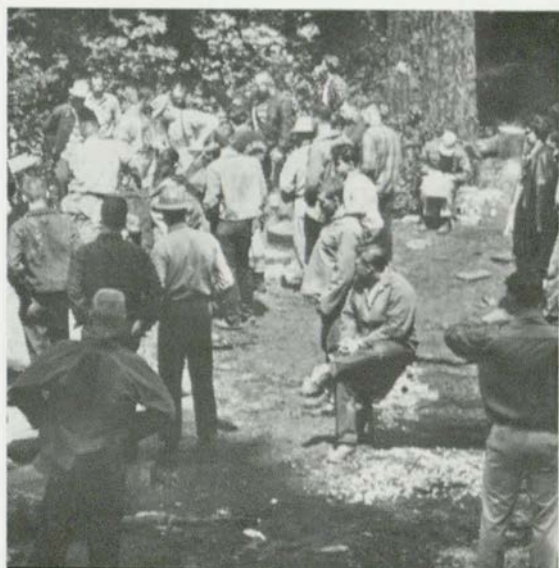
The winning team at the 1960 Association of Western Forestry Clubs annual conclave. Charlie Travers (Bull o' the Woods), Bob Bosworth, Jake Jacobson, Sam Rost (AWFC vice-president), Dean Rosera, and Wes Cheston.

Contest Shots from 1960 Conclave . . .

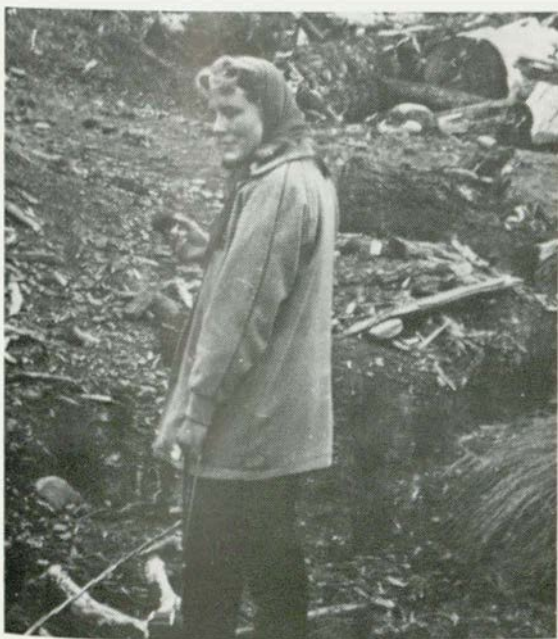
Taken on the Oregon State Forestry Schools School Forest and on nearby Weyerhaeuser logging operation.



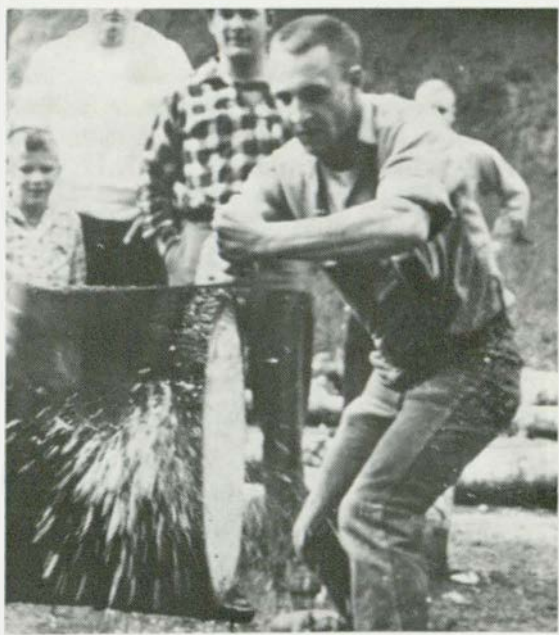
Sam Rost—a lot of man, a lot of cigarette.



General view of contest area.



Lollygaggin' Liz looks at some logging.



Sam making sawdust.

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Initiation . . .



Professor Morris and Andy Gear prepping the frosh on the initiation while Bertha looks solemnly on. The initiation this year was quite eventful due to a slight oversight on the Foresters' part in not obtaining a fire permit for the bonfire on Mount Sentinel.

Foresters' Float . . .



Building the float for the homecoming parade.



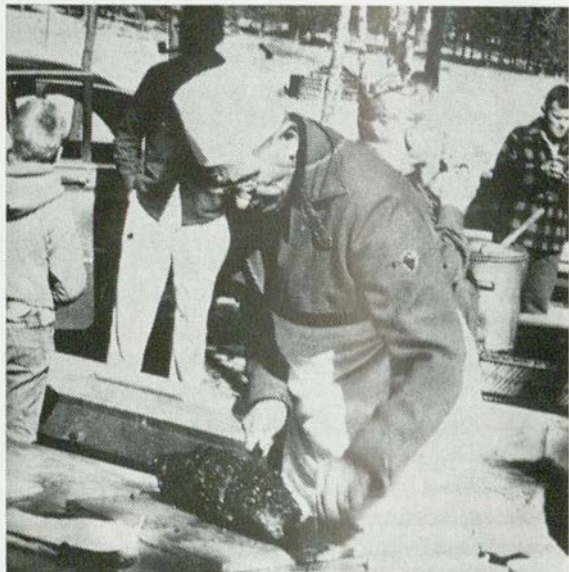
Queen Bertha (she wasn't elected this year, but considering her past landslide victory we still call her the queen).

The Smoker . . .

Every fall the Forestry Club puts on the Fall Smoker to acquaint the upperclassmen with the freshmen and vice-versa. As usual, Monk DeJarnette's barbecue was the highlight of the weekend.



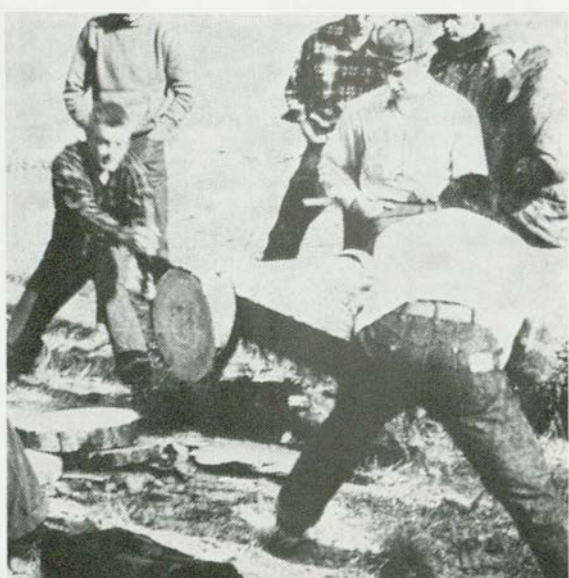
Monk dishes up some food for Mrs. Bolle, while O. B. looks hungrily on.



Cuttin' the beef.



A hard swinging axeman shows his stuff.



Grunt and pull!



Some of the Timber Jocks. Schields, McDonald, Stewart, Bosworth, Storch (Athletic Director), Goetz, and Travers.

The Forestry entered a number of teams in the intra-mural competition this year. The sports range from football to ping-pong and anyone in the club who desires to participate in them may do so. The annual Forester-Lawyer game was fought on the hardwood this year but the shysters got lucky and beat the good guys. Seems they were hiding the ball in their mouths and sneaking by with it while the woodticks weren't looking. Anyway, the guys on the various teams did a fine job and are a bunch that Bertha and the rest of us can be proud of.

Best Wishes

to the

Montana Foresters

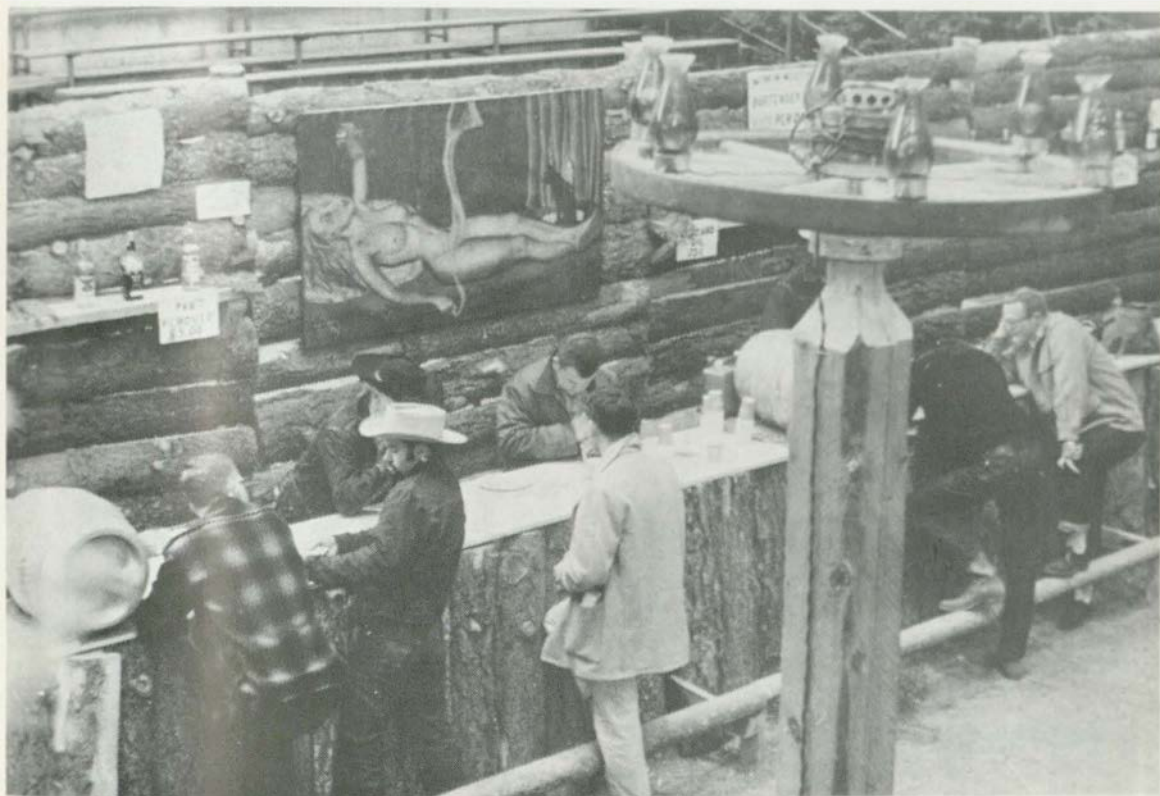
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Foresters' Ball



The Ball Committee Chairmen were: Bob Witt, Chief Push; Bob Bosworth, Asst. Chief Push; Dick Nickel, Asst. Ass't.; Bill Rusin, Convo; Larry Sturdivant, Gym Decorations; Craig Lindh, Finance; Dave Deery, Art; Charlie Travers, Tree Cutting; Wes Cheston, Special Effects;

Art Hosterman, Lighting; Art Tower, Bar; Marv

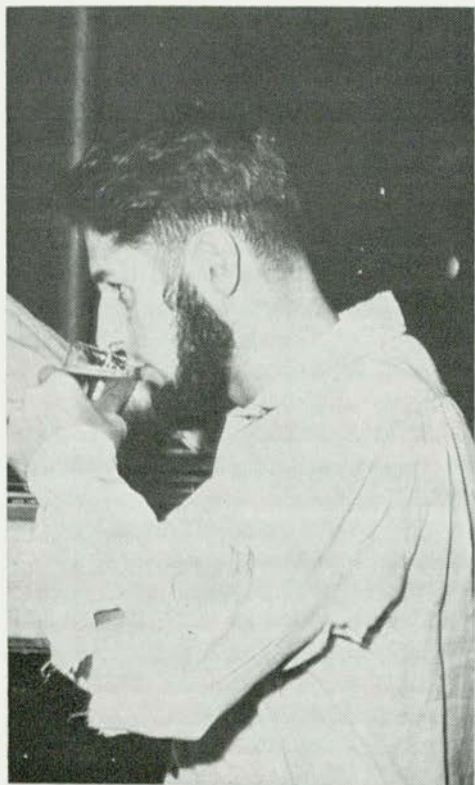
LeNoue and Jim Mershon, Chow; Whitey McGill, Transportation and Lumber; Bill Stewart, Exhibition Room; Sam Rost, Tracks; George Dern, Doorway; John Burns, Publicity;

Bill Bivin, Blue Snow; Ray Brown, Tickets; Jerry Parker, Coat Room; Dick Welch, Banquet; Bill Greenwald, Chowhall and Make-Out Room.

This year's Foresters' Ball was number 44 in the history of the Club. In keeping with the tradition of the Ball it was "bigger and better" than ever. The committee chairmen did a good job and the membership of the Club, as well as a lot of non-members, pitched in and made it a real success. A 16-mm movie of the Ball was made and is available for showing on request—let us know if you would like to see it!

The 44th Ball Report

By BOB WITT



Chief Push Witt



During the years since 1914, when the first Foresters' Ball was put on by the rough and ready men of the Ranger School, the Ball has developed into one of the main social events on the MSU campus. Aside from providing a rompin' stompin' good time for all the campus 'cats' the Ball serves another and more important purpose: All net proceeds go into the Forestry Club loan fund from which club members in need of a loan can borrow up to \$150 interest free for a period of about one year.

Three thousand man hours would probably be a conservative estimate of the total time spent in the planning and preparations for a Foresters' Ball. At times all the effort and time required may not seem worth the trouble, but I think everyone who has had a part in planning, tree cutting, decorating, and, yes, even clean-up, looks back with fond memories of working with the "boys" on a job well done.

Out of some 20 committees set up to carry out the necessary details probably the tree cutting committee is the most fun and exciting, and incidently, the most rigorous.

This year under the able supervision of the "Bull of the Woods," Charlie Travers, about 1,100 trees were cut and hauled in for decorating the field house.

The theme for the 44th Ball was "Modern Days of Logging." Probably one of the most spectacular displays depicting this theme was the 40' chain saw which was built over the entrance to the field house. Other displays included wood products, a loaded log truck and a heel boom. As usual the chow hall seemed to be another special attraction by providing the folks with all the free 'Sloppy Joes' they could eat, and of course we must mention the oldtime bar with its free drinks (soft) and hotseat. Here Guy Connolly stole the show with his own renditions at the rinky-tink piano.

This year's guest of honor was Mr. Charles Tebbe, head of Region I, U.S.F.S. Another special attraction, as usual, was the Delta Gamma Can Can girls who treated the crowd to a little dancing exhibition both nights.

In connection with the Ball this year, John Burns with assistance and equipment furnished by Mr. Dick Harris, took moving pictures of the whole operation from start to finish. About a 30 minute film was made from these, and it is to be used for entertainment at club meetings and for publicity purposes.

Thanks to hard working committee chairmen and members, this year's Ball was a big success with the loan fund realizing a net profit of \$818.83 and with everybody having lots of fun.

Bob Witt

Tree Cutting . . .



Clearing the road.



Loading up—

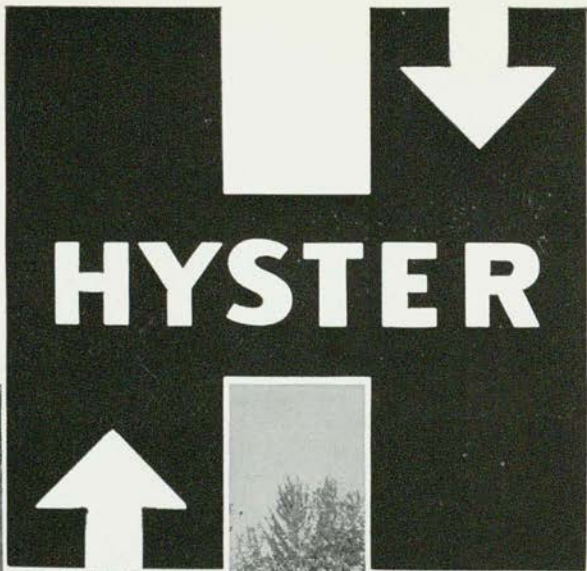


Dragging 'em in—

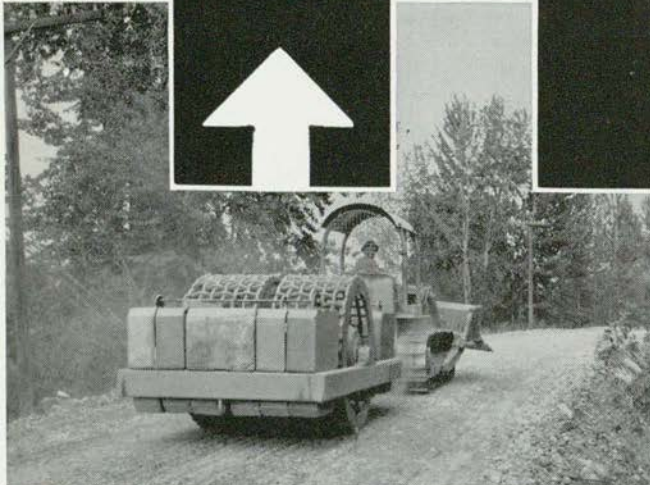


Three feet through — and sound as a dollar.

Approximately 1100 Douglas Fir trees were cut for the decorations for the 44th Ball. Charlie Travers ramrodded the tree cutting committee and got the goods delivered in record time. The trees were cut in the Miller Creek drainage in connection with a Forest Service timber sale which was held previously in the area. After the trees were cut, the boys partook of some refreshments which were served on the spot.



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Settin' Up . . .



The chow hall begins to take shape in the Field House.

It a Big Job, But . . .

things gradually get done. A lot of imagination plus an equal amount of willing energy can produce a lot of whatever your working on—in this case the biggest social event of the year at MSU—and which was featured in Life Magazine in 1954—THE FORESTERS' BALL!

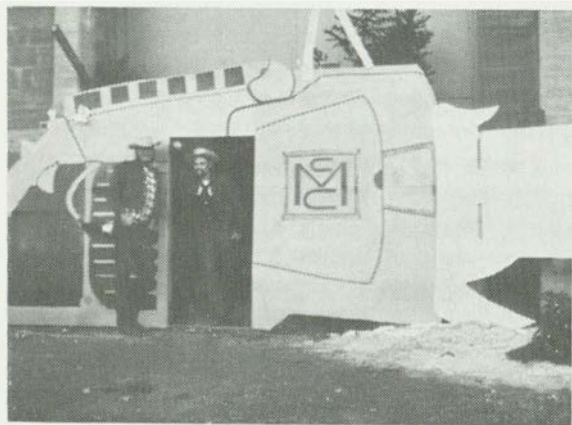


Mort takes time out to roll one while discussing a problem with Moorhouse.



Remick puts the finishing touch on a window.

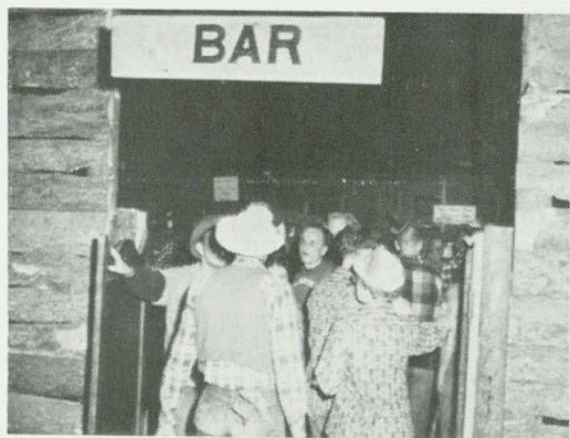
AT LAST . . . The Work Done, the Show Starts . . .



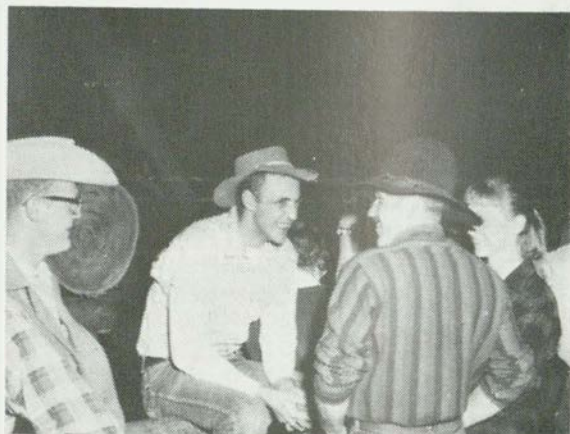
The gateway.



Paying up.



Through the swinging doors.



A mangy crew.



Mother DeJarnette, Mrs. DeJarnette, and Monk.
(Other lady unidentified).



Regional Forester Tebbe and MC Bill Russin.
Ron Wachsmuth also MC'd.

THE BIG SHOW



Honky-tonker Guy Connolly and date. Guy is also the world's only player of the world's only Gazooba, which is a regular feature of the Foresters' Convo.



The crew which serves up the drinks (all you can hold—free) during the Ball. The sneaky looking guy in the black suit is Art Tower, the owner of that disreputable joint known as the Black Cat Saloon. Art went fancy this year and installed chandeliers in the bar.

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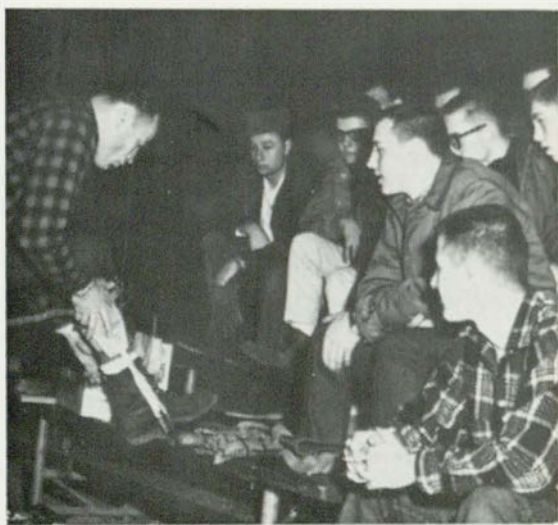
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OTHER CLUB ACTIVITIES . . .



The Forestry Club initiated a practical course this winter. The course is intended to give participants practical knowledge which may be useful on their summer jobs. The courses have included instruction in aerial operations and in

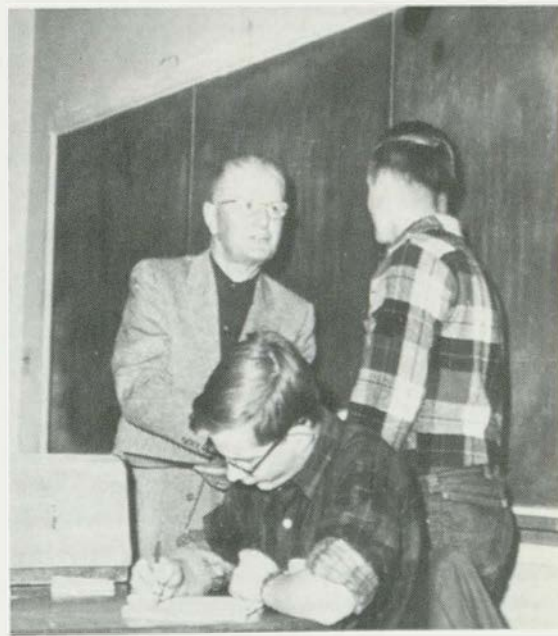


telephone line maintenance by the U.S. Forest Service. Other programs involving private industry and the State Forestry Department are being planned.

Awards . . .



Fred Deichmann reading the citation for the winner of the broken choker. Mike Lesnick was awarded the "prize" this year for his activities in connection with recovering, rather attempting to recover, Bertha.



Dean Williams during the Awards Meeting of the Forestry Club. The Silas R. Thompson Scholarship, the Loan Fund Scholarship, the Alumni Award, and other awards are given. The winners, respectively were: Robert Bosworth, Joan Stephenson, John Inman. Craig Lindh won the Western Conservation Association Essay Contest this year and read the winning essay to the convention at Victoria, B.C.

DRUIDS



Back Row: Dick Barney, Charles Fudge, John Inman, Ren Roginske, Tony Carlson, John Stephenson, Don Heiser, Bill Greenwald, Charles Mosier, Don Jenni, Jim Lambert, Charles Butts.
 Center Row: Dave Morton, Tom Kovalicky, Dan Colgan, Carson McDonald, Bob Bosworth, Mel Morris, Jim Moorhouse, O. B. Howell, Dick Taber, Arnold Bolle, Don Klebenow, John Burns.
 Front Row: Wes Cheston, Bill Pierce, Fred von Deichman, Dean Williams, G. M. DeJarnette, Dr. Severy, Charles Travers, Craig Lindh, Sam Rost, Ken Keefe.
 Not pictured: Ron Appel, James Furot, Fred Gerlach, Dave Guarnaccia, John Host, John Jacobson, Holton Quinn, Bob Steele, Dick Welch.

XI SIGMA PI



Back Row, L to R: John Burns, O. B. Howell, Arnold Bolle, Dean Williams, John Host, Mel Morris.
 Front Row, L to R: Robert Thallen, Charles Fudge, Don Klebenow, Charlie Travers, Jake Jacobson.
 Not pictured: Dick Welch, Ron Appel, Guy Connolly, Holton Quinn, Fred Gerlach, Bob Steele, Dick Barney, James Furot, Gordon Lewis, Lawrence Merriam, William Pierce.
 New members not pictured: George Bernhard, Rich Birgenheier, Bob Bosworth, Bob Burgen, Charles Butts, Tony Carlson, John Chambers, Ralph Conrad, Larry Magone, Robert Munay, Ed Packee, Glenn Peterson, Robert Wiseman.

Honor Council . . .

M.S.U. SCHOOL OF FORESTRY HONOR CODE

MEMBERS OF HONOR COUNCIL.

Senior Representatives: Sam Rost-President, Charles Travers

Junior Representatives: Charles Mosier and Bob Bosworth

Sophomore Representative: Bill Rusin.

THE HONOR CODE IN THE SCHOOL OF FORESTRY AT MONTANA STATE UNIVERSITY WILL EMBRACE ALL THE ATTRIBUTES OF GOOD CITIZENSHIP AND PROPER PROFESSIONAL CONDUCT DEMANDED OF ALL PROFESSIONAL MEN.

The Honor Council will act as an incentive to further the attributes of good citizenship and proper professional conduct. To help, aid and assist students toward that objective, will be the primary goal of the Council.

The Honor Code will be enforced by an Honor Council consisting of five (5) student members and one (1) faculty advisor. Two (2) members each from the Junior and Sophomore classes and one (1) member from the Freshman class will be elected to the Honor Council by the members of the School of Forestry.

The Montana Druids, Forestry Honorary Fraternity, will nominate (2) candidates for each position on the Honor Council to be filled. The faculty advisor will serve one full year, being elected by the Council members during early fall quarter.

AUTHORITY OF THE HONOR COUNCIL

The Honor Council, elected by the students of the School of Forestry, will rule on all infractions of the Honor Code as it applies to academic work in the School of Forestry, and on all breaches of obligations which ordinarily are thought of as belonging to good citizens of a professional school, in so far as disciplinary action is rightfully a responsibility of the School of Forestry and its members.

PROCEDURE FOR HANDLING REPORTED VIOLATION OF HONOR CODE

(This procedure will be followed by the Council. It may be replaced or revised by the Council at any time, with the approval of the Students and Faculty of the Forestry School.)

1. Any violation of the Code will be reported to the Council Faculty Advisor, or any Member of the Honor Council.
2. The Council Chairman will call a meeting of the Members at the earliest practicable time following a reported violation. At this meeting, the man reporting the violation will present all facts concerning the suspected violation.

3. The Council will then investigate the case further if necessary.
4. The Chairman will then appoint a Member of the Council to contact the accused and ask him to attend a meeting of the Council.
5. When the Defendant appears before the Council, he will be informed of the occasion for which he has been suspected of violating the Honor Code. The Council will inform him of all facts pertinent to the case. He will then be allowed to present his defense.
6. If the Defendant pleads not guilty, he will be asked to leave the meeting until the Council reaches a decision. To find the accused guilty, the vote must be unanimous.
7. If the Defendant is found guilty of violating the Honor Code, the Council will inform the Dean of the School of Forestry, in writing, of recommended action. The recommended action is subject to the approval of the Dean and Faculty Member concerned. If the recommended action is for dismissal, such action will be subject to the approval of the Dean and Faculty of the Forestry School.
8. In the event of recommended action, the entire case shall be type-written in triplicate. The original copy will be placed in the Council file, the duplicate copy will be sent to the Dean of the School of Forestry to be placed in the student's personnel folder, and the triplicate will be given to the accused.
9. In all cases, the Dean will inform the Honor Council, in writing, of final action taken in the case.
10. If the Dean and Faculty Member, or Dean and Faculty, as the case may be, do not concur with recommendations made by the Honor Council, the Dean and Faculty Member, or Dean and Faculty, will meet with the Council to reach agreement regarding the disposition of the case.
11. At the conclusion of the hearings, in which the defendant is informed of the charges, he has the right to have a hearing with his accusers if the case is valid and the council deems further investigation necessary.
12. Final results of all cases will be published in the **Kaimin** by a paid public announcement for one day and posted on the school bulletin board for three days. All names will be withheld.

CRUISERS

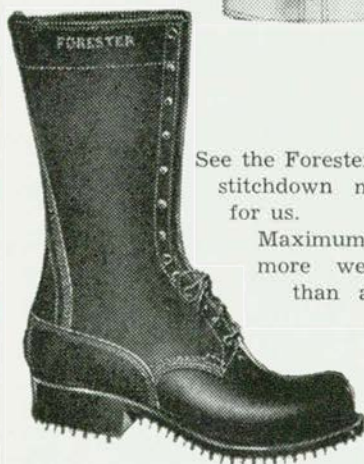


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120 NORTH HIGGINS

Priest Lake Dendro Trip . . .

Every winter, sure as it snows, the Dendro boys take off for Priest Lake to observe the numerous species of trees growing in the area. The experimental forest located there is also visited. Oh yes, they also get to meet Millie.



The whole gang —



"Suit up!"



Unloading.



The morning after.



"To hell with the view, I'd rather be in bed!"

EDITOR'S PAGE . . .

In keeping with the theme of this year's Kaimin, we have also yielded to progress. Prior to this year the advertisements were grouped in the back of the book, and, as you have noticed, they are spread throughout this year. This has been done for several reasons, but the primary one was to give the advertisers better coverage and thereby increases the value of our book as an advertising media. We hope that this meets with your approval.

The University Administration's stand concerning the advertising of beer in the Kaimin reminds us of a part of A. B. Guthrie's Pulitzer Prize winning book, "The Way West". It seems that the wagon train, which the old mountain man was leading, (I think his name was Summers) had come to the beginning of the plains where they would have no wood for cooking. The men of the train were worried about the embarrassment their wives would have to endure if they used buffalo chips for cooking, so they called a meeting to decide what to do. After hashing over all of the possible alternatives they came to the con-

clusion that they would have to use the chips for cooking anyway. This in turn led to a discussion on what respectable name could be used for the chips. Summers put an end to the foolishness by snorting, "Hell, why don't you call it candy and be done with it!"

Well fellows, anyone have a suggestion for a name?

I would like to thank everyone who donated their time and efforts to this year's Kaimin, for without the help and work of many people it would not have been possible to print the book. Special thanks to Dean Williams, those profs who contributed articles, Mr. Fred Gerlach for his guidance and advice to both the Club and Kaimin in his capacity as Club advisor, Mr. Claud Lord, Miss Cyrile VanDuser, and the U.S. Forest Service for much assistance in Club activities and supplying information.

Thanks also to the following people for contributing photos: Don Heiser, Larry O'Connel, Ron Wachsmuth, Ray Brown, and Bill Russin.

Our apologies to anyone whom we have overlooked.



KAIMIN STAFF

Editor John Burns
Assistant Editors Bob Bosworth,
Ron Wachsmuth
Photo Editor Neil McGill
Business Manager Hank Goetz
Advertising Staff Ron Roginske, Hank
Manz, Bert Croft, and Charles Hatch
Photography & Processing by McGill & Burns

AROUND THE CAMPFIRE . . .

This is an idea borrowed from some of the earlier Kaimins as were the poems.

OLD MONTANA

Take me back to old Montana,
 Where there's plenty room and air;
 Where there's cottonwood an' pine trees;
 Bitter Root and prickly pear;
 Where there ain't no pomp nor glitter,
 Where a shillin's called a "bit,"
 Where at night the magpies twitter,
 Where the Injun fights were fit.

Take me where there ain't no subways,
 Nor no forty-story shacks;
 Where they shy at automobiles,
 Dudes, plug hats an' three-rail tracks;
 Where the old sun-tanned prospector,
 Dreams of wealth an' pans his dirt,
 Where the sleepy night-herd puncher,
 Sings to steers and plies his quirt.
 Take me back where the sage is plenty,
 Where there's rattlesnakes and ticks;
 Where a stack of "whites" cost twenty,
 Where they don't sell gilded bricks;
 Where the old Missouri river,
 An' the muddy Yellowstone,
 Make green patches in the Bad Lands,
 Where old Sittin' Bull was known.

Take me where there's diamond hitches,
 Ropes an' brands an' ca'tridge belts;
 Where the boys wear chapps for britches,
 Flannel shirts an' Stetson felts.
 Land of alfalfa an' copper!
 Land of sapphire an' gold!
 Take me back to dear Montana,
 Let me die there when I'm old.

(Reprinted from 1916 Kaimin)

Did you ever for a summer try a bachelor's stunt
 alone
 In some lonely mountain meadow forty miles away
 from home;
 Where the mosquitoes wore no muzzles and the flies
 knew how to bite
 And the rattlesnakes were plenty and the coyotes
 howled at night?
 Did you ever cook your flapjacks in a house so full
 of smoke
 That the tears dropped in your butter? Now it's
 funny but no joke.
 Have you burned your beans and bacon, wished de-
 voutly for a wife?
 If you haven't then you're missing half the joys of
 Ranger Life.

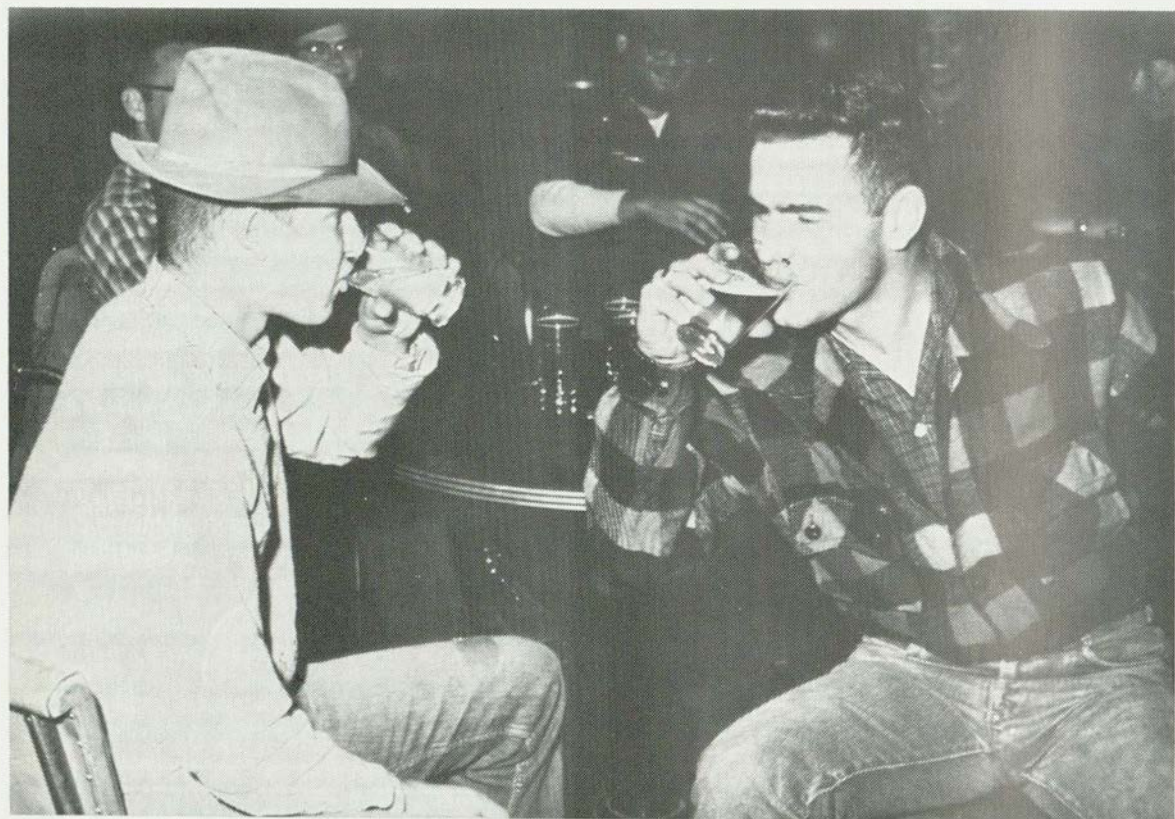
Have you tried to catch your horses in a meadow
 wet with dew
 Where the grass grew long and luscious that wet
 your clothing through?
 Did they kick their heels in pleasure and then start
 on a run
 Across that same wet meadow till you wished you
 had a gun?
 Did you finally corral them in a corner of the
 fence
 Stamping, snorting, wildly eager, looking for another
 chance
 To dash by you—kick their heels up just as though
 you were a stranger?
 If you haven't then you're missing half the joys of a
 forest ranger.
 Have you ridden for an hour beside a roaring brook
 Watching trout jump in the sunlight and you didn't
 have a hook?
 Where the shadows on the water were alluring as
 a dream
 Did you mutter a few cuss words as you left that
 tempting stream?
 And did you swear by all that's holy that as sure
 as Sunday came
 You'd be back there with your fish rod and mix in
 that little game?
 Did you roll out Sunday morning half awake and
 half a-sleep
 To get this little message "Will you go count Free-
 man's sheep?
 Have you ridden through the forest with the shadows
 at your feet

While the grouse were drumming round you and you
 hadn't any meat?
 Where the quail were thick as spatter and you couldn't
 take a shot
 Did that badge on your suspender help your feelings
 out a lot?
 And when at night you're so tired you can hardly
 even eat
 Did some tourist drop in on you, take your only easy
 seat?
 Put his feet upon your stove hearth—even though he
 is a stranger
 And tell you calmly as he lolls there "It's a snap to
 be a ranger."

—Tom Leopold, Forest Ranger.

(Reprinted from 1922 Kaimin)

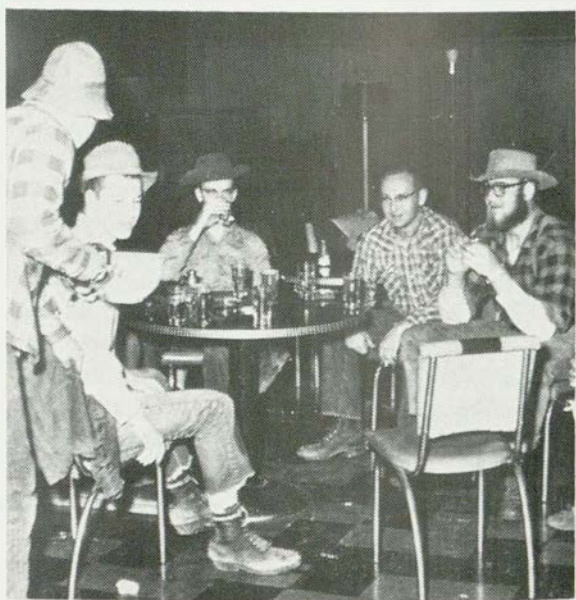
Relaxation . . .



It's not all work and no play as Mort and Wes can testify.



Your ass!



Have some. Ish better out of a hard hat.

FORESTERS' SUPPLIES



Having Foot Trouble?

Try Buffalo Arch
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This is the Vibram sole used on Buffalo shoes, made in Switzerland for Mountain Climbing. Outwears a dozen ordinary soles, does not slip.

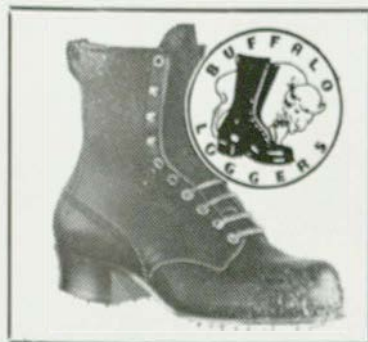
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BUY THEM FROM YOUR DEALER

Buffalo Shoe Co.
SEATTLE, WASHINGTON

Summer Work . . .

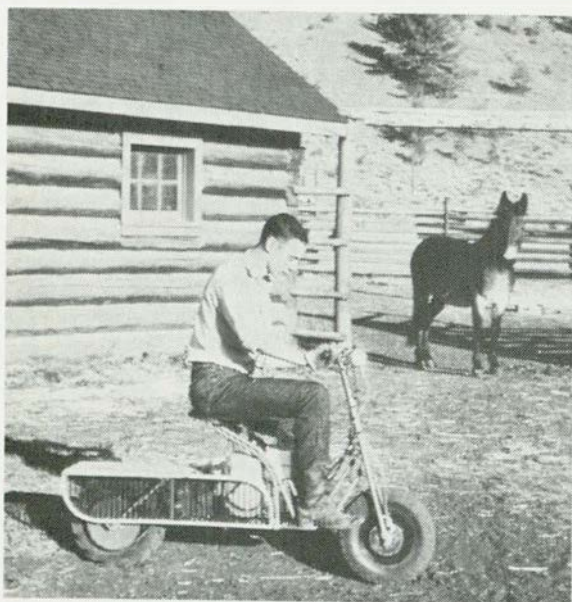
With the coming of summer the boys take off for various jobs in various places. Some of the variety is shown here.



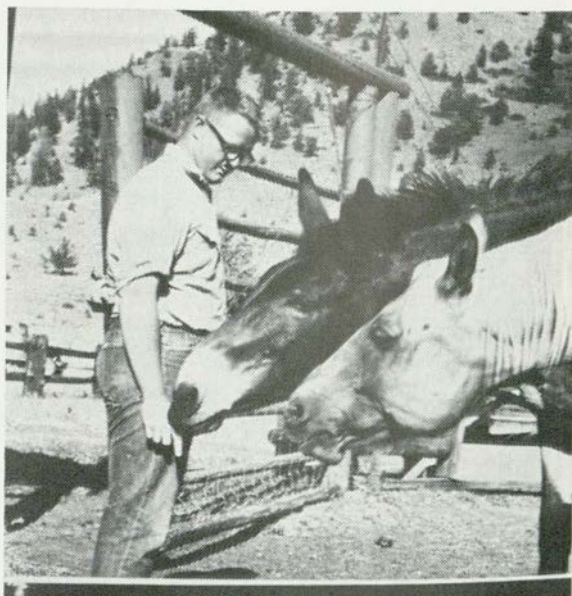
Home away from home—in the air yet! Many a forester spends a summer in one of these contraptions. This isn't high enough for a lot of them so they spend their time jumping out of planes on fires—sorry we don't have a photo.



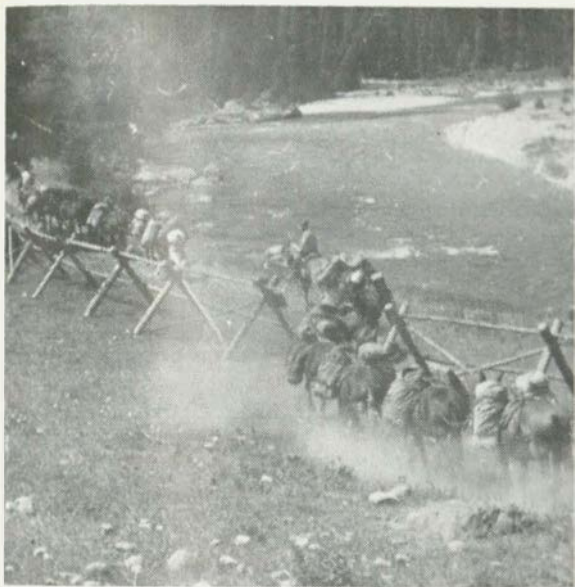
Ray Brown works on some phone line in the Lodgepole Country on the East Side.



What the hell is that thing!?!



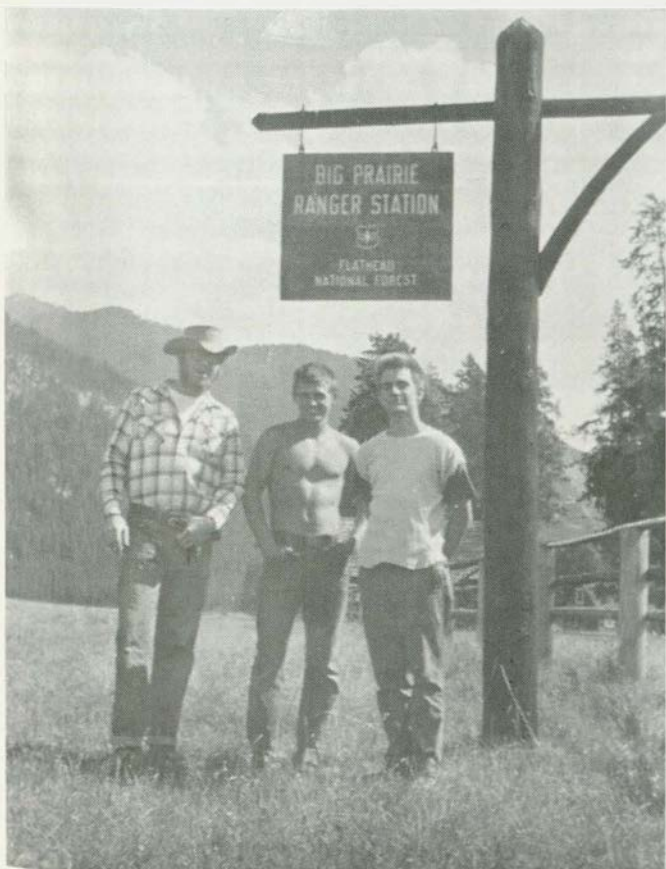
Three old plugs.



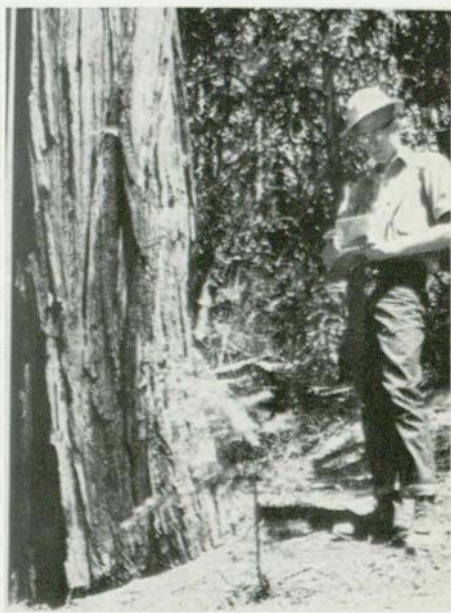
Pack string on the South Fork. Bob Marshall Wilderness Area.



Rusin on top of the Swans. Looks like what you'd expect an abominable snowman to look like.



MSU's contribution to Big Prairie—Shields, Rusin, and Storch.



McGill tallying turkey roost poles.

TREASURER'S REPORT . . .

This year has been one of the most prosperous years, as well as the biggest "spendin" year in our long and honorable history. With the help of over \$450 left over from last year, we grossed \$1520.40 during the year. Much of this total has already been spent, and we anticipate the cost of restoring Beloved Bertha, who has suffered the hazards of travel. We have also appropriated \$140.00 for the purchase of Forestry books for the school library in memory of Fay G. Clark.

We lost money, as usual, on the Fall Smoker and the Winter quarter "couth" dance. Our biggest expenses were the purchase of Club pins, and the Fall Smoker.

Net receipts from last year's Forester's Ball amounted to \$818.83, which was transferred this fall to the Club Loan Fund.

Below is a statement of our financial status at the end of Winter quarter: (Feb. 28, 1961)

General Fund:

Cash Balance, July 1, 1960		\$ 457.50
Receipts		
Dues collected and Pins sold	\$ 886.55	
Decals sold	5.50	
Fall Smoker	146.65	
Winter Quarter Dance	14.25	
Collections-Bus fares	9.95	1,062.90
Total to be accounted for:		1,520.40
Disbursements		
Spring Hike—1960	15.29	
Fall Smoker	229.65	
Winter Quarter Dance	69.00	
Homecoming Float	37.44	
Initiation	52.42	
Meeting Subsistence (coffee, doughnuts)	79.42	
Club pins	220.00	
Gifts and Flowers	10.00	
Projector Rental	3.50	
Bookkeeping Service (Field House)	11.76	
Office Supplies and Expense	22.09	
Miscellaneous	2.33	752.90
Cash Balance, February 28, 1961		\$ 767.50

A.W.F.C. Conclave Fund:

Cash on hand, February 28, 1961	\$ 236.58
---------------------------------------	-----------

Forestry Club Loan Fund:

Investments	7,259.31
Loans Outstanding	2,984.79
Cash on Hand	3,050.50
Total (Feb. 28, 1961)	13,294.60

Respectfully Submitted,

Craig J. Lindh

CONSERVATION WEEK—1961

By CHARLES TRAVERS and JOHN (JAKE) JACOBSON

On April 6 we were officially appointed co-chairmen of the Conservation week program to be conducted the week of April 11-16. The late appointment was the result of the dropping from school of the originally appointed chairman. Much of the success of the program was due to assistance to speakers on the part of the professors in the Forestry School. Without the help of the instructors it would have been very difficult for the speakers to prepare adequate speeches on such short notice.

After contacting various persons in the Missoula grade schools it was evident that no one had been informed as to the date of the proposed Conservation Week Program. Upon contacting Mr. Porter, superintendent of schools, definite dates for the programs were established. The number of topics to be presented was cut to three to make it easier for the speakers to prepare their talks. These topics were Range & Wildlife, Fire, and Soil and Water. We suggest that topics be alternated on succeeding years to avoid repetition as much as possible.

The 12 schools which participated in the programs had films and lectures presented to them at staggered times which facilitated the movement of speakers, films and projectors from place to place. It was found that films were a great help in supplementing the lecture programs, but the length of the films should not be too long because the students seem to lose interest. This could be because many of the students had seen the films in previous Conservation Programs held in the individual schools. In presenting the films a short introduction covering the high points of the film was found to be very beneficial. To familiarize each speaker with the film he would present with his speech a time was set aside prior to his first scheduled speech so he could preview the film.

We would suggest that an effort be made to use different films on succeeding years (see film list on films used this year). We used films obtained from the Forest Service Information and Education Department and the State Film Library in Helena. Other sources of films could be the Sportsmen's Service Bureau, the State Fish and Game Department and Weyerhaeuser Timber Co.

The programs this year were shortened and this enabled the speakers to hold the attention of the student much more successfully. Moderators from the Junior class were assigned to each of the schools. Their function was to (1) act as liaison between the school and the overall conservation program, (2) furnish transportation of films and speakers to and from the school, (3) assist the speakers for the school in obtaining material for their lecture, (4) gather suggestions and other information which would be beneficial in improving and strengthening the Conservation Week Program. In a few cases the moderators functioned as speakers when the assigned speakers failed to show up.

The tree planting program on the Lubrecht Experimental Forest was planned as a climax to the Conservation Week and scheduled for April 16. Professor Deichmann, Jacobson, Keefe, Pinney, and Mosier laid out the planting area on the north side of Highway 20 approximately three-fourths mile from

the Lubrecht Camp entrance. The planting area was set up so each school would have a specified area in which to plant. The planting rows were perpendicular to the highway running from the creek bottom up to the top of the ridge on the old burn. We had 2000 2-1 Ponderosa pine seedlings heeled in near the planting area prior to arrival of the students.

The original planting date of April 16 had to be changed due to inclement weather on the night of April 15-16. A substitute date of April 30 was chosen.

On the day of planting, the weather was clear and nice. The students from camp acted as supervisors for the groups of students, one supervisor being assigned to each school. Verbal instruction as well as a demonstration and a handout were given to all participating students. We planted less trees than in previous years but feel that the quality of planting and subsequent survival of seedlings are much higher. The planting time was cut to just over two hours. Even in such a short time there was a noticeable decrease in the effectiveness of planting towards the end. We would suggest that planting time in future years be held to about two hours because after that time the students lose interest and are hard to control.

There were approximately 120 students taking part in the planting. We feel 150 students could be handled if the Sophomores at camp would get behind the program. There should be one instructor to about every eight grade school students if any degree of control is to be assured.

After the planting was completed the instructors walked their individual groups cross country to the Lubrecht Experimental Forest Headquarters. The objective of the trip was to try and associate some of the concepts taught during the Conservation Week Program to things observable in the forest.

Following the cross country hike there was a demonstration of smoke jumping techniques by Craig Lindh and Dave Morton. A small fire was built in the clearing near the Forest Headquarters. The jumpers showed how initial attack on forest fires in inaccessible areas is performed. Johnson Flying Service furnished the plane and pilot which made the demonstration possible.

During the lunch hour which followed the demonstration, free Coca-Cola supplied by the Coca-Cola Bottling Co. in Missoula, was given to the students. The instructors were circulating throughout the area answering any question the students may have had about the demonstration or activities during the Conservation Week Program.

After lunch, university students held contests of power sawing, double bucking, and burling. There was a challenge contest in double bucking between two grade school teachers and a couple of university students.

It was evident from the attention, interest and comments of students and grade school teachers, that the program was a great success. In setting up programs in future years, some effort should be made to be not only informative but entertaining.

John Jacobson
Charles Travers

Congratulations

to the

Graduating Seniors

Class of 1961

School of Forestry

Montana State University

from

J. Neils Lumber Company

A DIVISION OF ST. REGIS PAPER CO.

Graduating Seniors . . .



Ron Appel

Ron came to MSU from Aurora, Illinois and is majoring in Timber Management. He has been an active member of the Forestry Club, worked on the Forester's Ball as a committee chairman and assistant Chief Push and is a member of the Druids and Xi Sigma Pi. He has spent two summers with the Forest Service here in Montana and one summer with the BLM in Lewistown, Mont.



Dean R. Byrne

Dean is a Wildlife Management major from Billings. He attended MSC before coming to Missoula. He is a member of the Forestry Club. He has worked one summer on the Lubrecht Forest and one summer with the Forest Service at St. Regis, Montana.

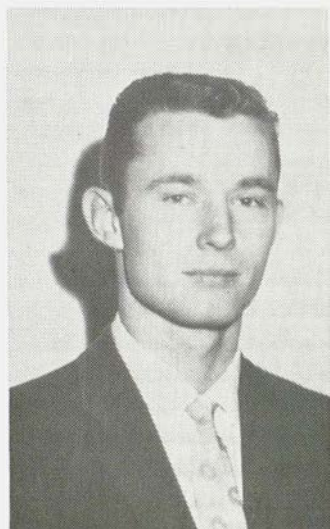


John E. Burns

John is a Forest Management major from Oak Ridge, Tennessee. While in the Forestry Club he has worked on the Kaimin as photographer, asst. editor and editor; and as chairman of the Exhibition Room and Publicity committees for the Foresters' Ball. He is a member of the Druids and Xi Sigma Pi. John spent his summers with the U. S. Forest Service on the Ouachita N.F. as a Forestry Aid, the Medicine Bow N.F. as a Recreation Aid, and the Shoshone N.F. as a Range Aid.

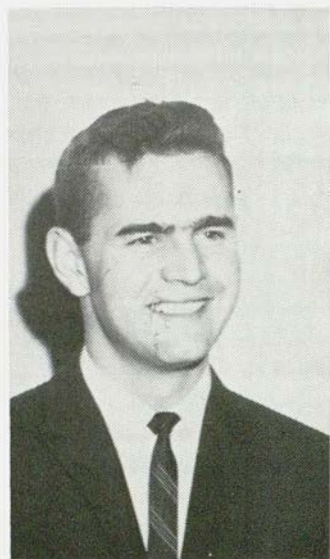
John W. Chambers

John's home is Glendale, Arizona. He transferred here from Arizona State College, Flagstaff, and is majoring in Range Management. He is a member of Xi Sigma Pi. Summers he has been a firefighter on the Coconino N.F. and Aerial Observer for the Lolo N.F.



Wes Cheston

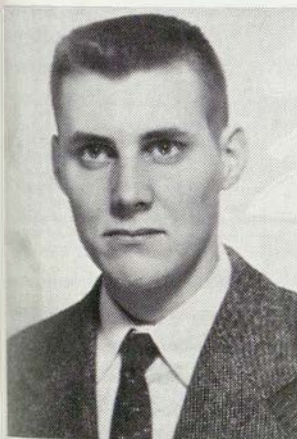
"Canuk" came down to the 'sunny South' from just across the line in British Columbia. Wes is a Druid and has found time to be an active Forestry Club member, work on the Ball, be the special effects committee chairman, as well as help out in a number of other club activities. We don't have all the info on Wes, but we know he spent a summer with the Sate Forestry Department working on inventory.





Dick Frohne

Dick hails from Anchorage, Alaska and is specializing in Timber management. During his stay at MSU he has been a member of the Forestry Club and worked on the Foresters' Ball. Dick spent a summer on Blister Rust on the Clearwater N.F. in Idaho, and one summer with the BLM here in Missoula.



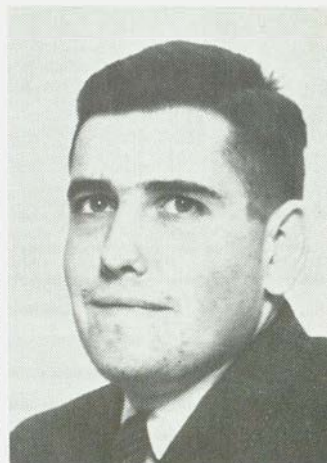
Guy E. Connolly

Guy transferred to Montana from the University of Colorado in Boulder, his home town. He is studying Wildlife Conservation. He is a member of the Forestry Club and helped pep up the Convo and Ball with his musical talents. He is also a member of Xi Sigma Phi, Phi Sigma, Phi Kappa Phi and was vice president of the Wildlife Club. In his spare time he was also in the Missoula Orchestra. He spent one summer as lookout on the Lewi and Clark and two summers on the Bison Range for the U.S. Fish & Wildlife Service.



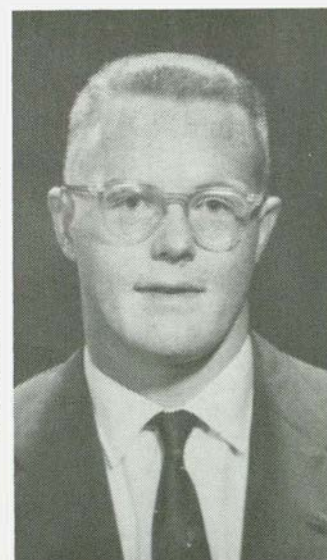
Charles William Fudge

Charlie is a Forest Management major who hails from Jefferson, Iowa. He has worked on the Foresters' Ball and Conservation Week as a speaker. He also holds a Graduate Teaching Assistantship at the Forestry School, and is a member of the Druids and was the Ranger in Xi Sigma Pi. Charlie's work experience begins with the U.S. Forest Service in B.R.C. In three summers he was a camp boss for one of the B.R.C. camps on the Cabinet N.F. He then spent a summer in a sawmill in Iowa, and did a little geology work in Utah the following summer. His last three summers were spent on Blister Rust as a Foreman, Camp Boss, and on disease survey on the Kaniksu.



William F. Greenwald

Bill is a Forest Management major from Rensselaer, New York. Before coming to Missoula, he attended the New York Ranger School. As a Forestry Club member he worked on the Ball Lighting committee and was chairman of the Make-out & Cook Shack committee. He is a member of Druids. He has worked several summers in the East including work with the Bureau of Entomology. He also spent one summer doing inventory work for the Montana State Forestry Dept.



Donald A. Heiser

Don comes from Danville, Illinois and is a Forest Management major. In the Forestry Club he was Senior Class representative, athletic director and Bull Cook. He was chairman of the Bar committee for the 43rd Ball. He has also served as secretary of Druids. Summers he has piled brush in Wallace, Idaho, and worked two summers at Cody, Wyoming, as Fire Control-Recreation Aid and Forestry Aid.



John A. Jacobson

John transferred here from the Western Washington College of Education, Bellingham, where his home is. Jake is active in the Forestry Club, having been co-chairman of Conservation Week, a delegate to the 1960 Conclave and has worked on the Ball and Rodeo set up. He was secretary of Xi Sigma Pi and a member of Druids. Awards he has received are the 1960 Alumni Memorial Forestry award and the University Scholarship. His summer experience has been with Tree Farmers, Inc. on their road construction crew and forestry staff.



Donald R. Jenni

Don, whose home is Bozeman, transferred from MSC to study Range Management. He has been active in the Forestry Club and attended the 1959 AWFC Conclave. He is a member of Druids. His experience has been on the Gallatin and Beaverhead National Forests and work for the Intermountain Range and Forest Experimental Station in Missoula.



Philip J. Jones

Philip comes from Butte. His major field of study has been Range Management. His activities include working on the Foresters' Ball. He has been a timber cruiser and worked in the mill for Anaconda Company.

Kenneth W. Keefe

Ken is from Paxton, Illinois and majors in Forest Management. He has been active in the Forestry Club. His club work includes Assistant Kaimin Editor, Conservation Week speaker and work on the Ball. He was secretary of the Honor Council and is a member of Druids. Summer work includes cruising for the Pilot Rock Lumber Co., Oregon. He also worked for the Forest Research Lab, Missoula, and the USFS Forest Research Lab, Juneau, Alaska. Ken also was a smokejumper one summer.



Thomas John

Kovalicky

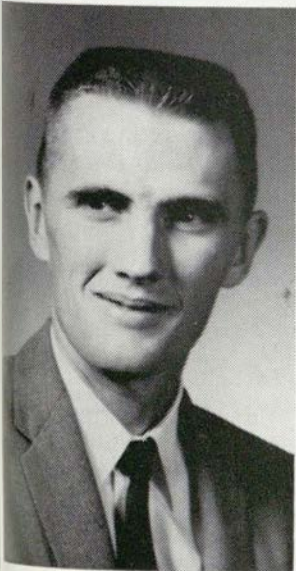
Tom came to Montana from Clifton, New Jersey as a Wildlife major. He is a member of Druids, Forestry Club, Newman Club, Soc. of American Foresters and Soc. of Range Management. He was Vice President AWFC in 1956, Assistant Push of the Ball, and Vice President of Druids. He worked on the Conservation Week committee and has helped the cause of the Foresters' football and bowling teams. Tom has been a lookout on Powell district and headquarters guard at the Wisdom Ranger Station. In 1956 he worked on Dew Line in the Aleutians. He has also been Alternate Ranger on the Wise River and Madison Ranger Districts. Two years of the army life round out Tom's experience.





Craig J. Lindh

Craig is a hometown boy studying Forest Management. He was treasurer of the Forestry Club and was finance committee chairman of the Ball. He was Sophomore representative on the Honor Council. In Druids, he served as President. Craig was the first prize winner of the 1960 Western Forestry Essay Contest. He worked one summer as lookout for the Montana State Forestry Dept., was on trail crew on the Flathead, was a smokejumper and worked on timber inventory work on the St. Joe N.F.

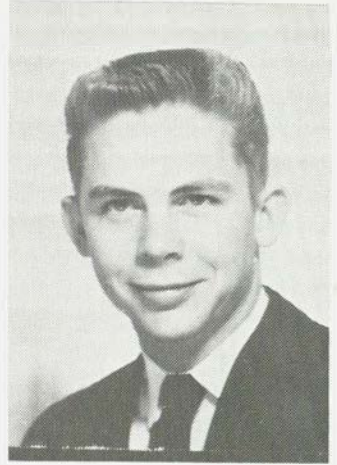


Deen Lundeen

Deen, from Markeson, Wisconsin, attended Wisconsin State College before coming West to study Forest Management. He has been active in the Forestry Club, helping on the Ball and Conservation Week. He is also a member of Sigma Phi Epsilon and the SAF. He has spent 3 summers on the Flathead doing various forestry jobs and plans to return to the Flathead after graduation.

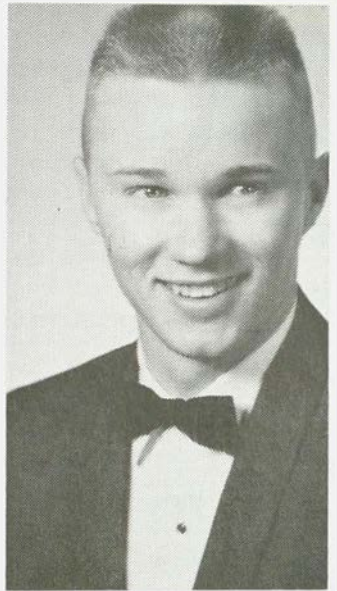
Kent A. Meek

Kent hails from Casper, Wyoming and is a Forest Management major. Active in Forestry Club activities he was Business Manager and Editor of the Kaimin and worked on the Foresters' Ball. He has spent summers on the Clearwater N.F., Lewis and Clark N.F. and worked one summer near Libby for J. Neils Lumber Co.



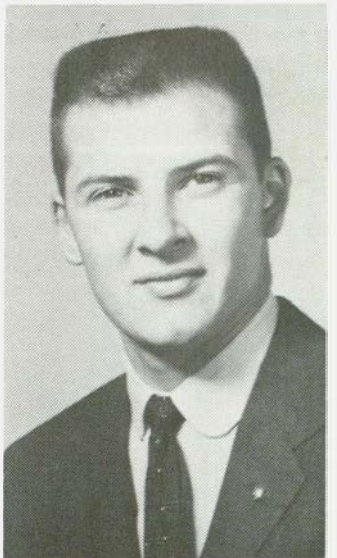
Jean Paul Mohler

Jean (or Paul) is a transfer from the Black Hills Teachers College, majoring in Forest Management, whose home is Rapid City, South Dakota. He is a member of the Forestry Club and worked on the chow and chow hall committees on the Ball. He has helped out on Conservation Week. His summer work includes three summers at Custer State Park, a summer cruising and thinning on Lubrecht and work on inventory for the Montana State Forestry Department.



David H. Morton

Dave is a Forest Management major from Oak Ridge, Tennessee. Mort was very active in the Forestry Club having been Vice President and President and even Bull Cook. He was chairman of gym decorations of the Ball and was Kaimin ad manager. He worked one summer on the Quachita NF. in Arkansas, tried smoke-jumping and worked on the Nezperce National Forest. Dave is also founder and sole member of the Spit - n - Whittle Club.





Charles Mosier

Charlie's home is Pittsburg, Kansas. He attended the Pittsburg State Teachers and University of Colorado before coming to Montana to study Forest Management. He has been chairman of the doorway committee for the Ball. His summer experience has been two summers at the Powell R.S., Lolo N.F. and one summer working for the Missoula Research Center.



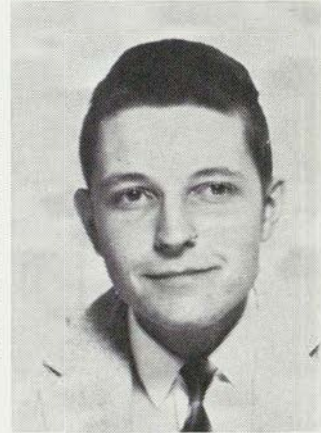
Gerald Van Parker

Gerry is a Forest Management major from Pierre, South Dakota. He has been active in the Forestry Club, playing on the basketball team and serving on the blue snow committee and chairman of the coatroom committee for the Ball. He was also on the varsity swimming team. His summer work includes lookout on the Selway Bitterroot Wilderness area, one summer on the City of Pierre Municipal Park Maintenance crew and a summer of recreation and resource review for the Blackhills N.F. He has also worked on research for the Priest River Experimental Forest and the Northern Forest Fire Lab in Missoula.



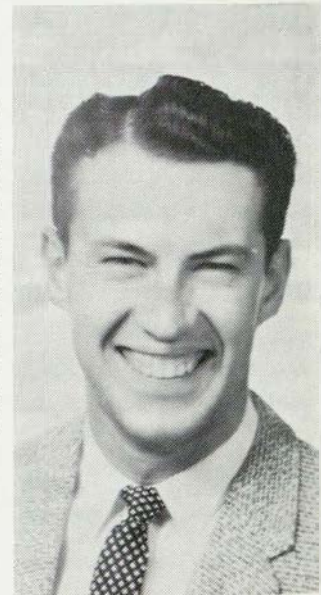
Maynard (Sam) Rost

Sam is studying Forest Management and hails from Bigfork, Montana. A very active Forestry Club member he has been a delegate to AWFC conclave for three years. On the Ball he has been chairman of special effects and Track painting. At sophomore camp he was camp boss. He has served two years on the Honor Council, being chairman his senior year. He has also been treasurer of Druids. Summers he has packed on the Flathead and Sequoia National Forest. He worked one summer for the Gray Lumber Co. and was a smokejumper for two seasons.



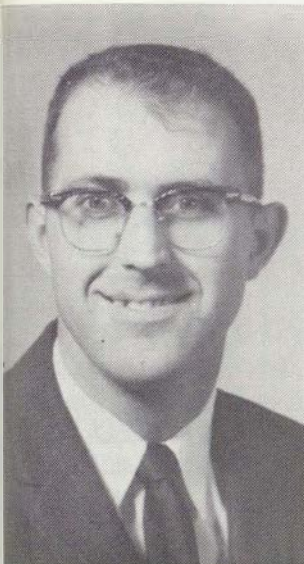
Tom Silver

Tom calls Aurora, Illinois home and is studying Forest Management. In Forestry Club activities he has helped on the bar, track and special effects committees of the Ball and also helped on the Conservation Week program. For two summers he worked for the Forest Service at Whitefish, and he worked one summer for the Edward Hines Components Division, St. Charles, Illinois.



William L. Stewart

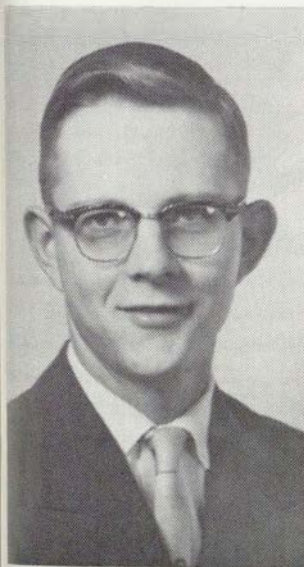
Bill's home is in West Monterey, Pennsylvania. He transferred to Montana from Pennsylvania State University to major in Forest Management. He is a Forestry Club member and was a committee chairman for the Ball. He has been active on club intramural teams besides playing varsity baseball. His field experience includes three summers surveying for the Pennsylvania department of highways and one summer of timber sale work on the Stillwater State Forest.



Charles M.

Travers Jr.

Charlie's home is Elma, Washington. He attended Northwest Bible College before coming to Missoula to study Forest Management. He is a Forestry club member and has helped on the Ball, being tree cutting chairman. He was chairman of Conservation Week and participated in intramural sports for the Foresters. He was delegate to AWFC conclave two years and won Logger of the Day in 1960. He was Associate Forester of Xi Sigma Pi and is a member of Druids, Wildlife Club, Phi Kappa Phi National Scholastic Honorary, and Phi Sigma. He served on the Honor Council and received the Silas Thompson Scholarship. His summer experience includes two summers on the Olympic National Park and one summer on the Mount McKinley National Park in Alaska.



Richard E. Welch

Dick is a wildlife management major from Menoken, North Dakota. He has been a member of the Forestry Club during his stay at MSU and is a member of the Druids and Xi Sigma Pi. Of course he put in a lot of time on the Foresters' Ball, and also as secretary of the Forestry Club. Dick spent his summers with the U.S. Forest Service on the Flathead as a lookout, and in Colorado on the Routt N.F. as a Forestry Aid. A summer with the Bureau of Land Management in Miles City rounds out his experience.



Laurence J. Whelan

Larry hails from Butte and is a Forest Management major. He has been active in intramural basketball for the Forestry Club. He spent three summers as station fireman at the 9-mile Ranger Station.

Raymond W. Abbott

Ray is a Montana boy from Butte and his major is Forest Management. He has worked on the Foresters' Ball. Ray's experience starts in 1948 when he worked on the Kootenai N.F. He spent the next two summers there also, but took time out to do a hitch in the Air Force up until 1955. In '56, '57, and '58 he was with the Forest Service in Butte. Ray tried research for one summer with the Intermountain Research Center in Missoula, and rounded his experience out with a summer in the Supervisor's Office on the Cour d'Alene.

James W. Carr

Jim is from Stewart, Nebraska. He attended the Nebraska Wesleyan University before transferring to Montana to major in Range Management. He has worked on the Foresters' Ball. His summer experience has been with the Anaconda Land Department at Bonner.

Clarence B. Croft

Bert is a Siviculture major from Claremont, New Hampshire. Before coming to Montana he attended the New York Ranger School. He has worked on the doorway committee for the Ball. Bert worked summers for the New England Forestry Foundation and one summer with the Recreation Resources Review on the Arapaho N.F. in Colorado.

Dobert Dieter

Bob, a Wood Utilization major from Tacoma, Washington, came to Montana from the College of Puget Sound. He has worked on the Ball, including work on the chow committee. He has varied summer experience including work with the Washington State Division of Forestry, Mt. Lolo Lumber Company, Wegerhauser Timber Corp. and worked on the Lubrecht Forest.

James W. Elliot

Jim is studying Range Management. His home is Bridgeport, Nebraska and he attended Nebraska Wesleyan University before coming to Montana. He has worked in the dry kilns at the Anaconda Lumber department and done timber work for the Anaconda Land Department at Bonner.

Jerry Hazen

Jerry's home is Moline, Illinois. He attended the Augustana College in Rock Island, Illinois, then transferred to Montana to study Forest Management. He has helped out on the Foresters' Ball. Summers, he has worked on Blister Rust Control at Troy, Montana and with the Rocky Mountain Forest and Range Experiment Station at Missoula.

John Mabry

Information not available.

Terry Matchett

Terry, a Range Management major, is from Chinook. Before coming to Missoula he attended the North Montana College in Havre. His field experience includes work as a lookout on the Lewis and Clark and inventory work for the Missoula Research Center. He has helped out on the Ball, working on the bar committee.

Marvin D. McMichael

Marvin is a Forest Management major from Garden City, Kansas. He transferred here from the Garden City Junior College. A Forestry Club member, he worked on the Ball and on the chow hall committee. His summer work includes fire control at Coram Ranger Station on the Flathead, work on the Lubrecht Forest and a member of the Montana State Forestry Departments Inventory crew out of Missoula.

Edward J. Miles

Ed is a Wildlife Management major hailing from Browning, Montana. He has been very active in Forestry Club and was chairman of the Foresters' Ball ticket committee. For summer experience Ed has had four years at Glacier National Park and he has worked one summer on the Beaverhead N.F.

Robert Wiseman

Bob transferred to Missoula from Wisconsin State College, to study Range Management. He is a member of Xi Sigma Pi honorary forestry fraternity. Bob spent a summer on Blister Rust Control in Idaho, was a smokejumper one summer and worked as a range rider for the Helena National Forest.

Bob Witt

Bob graduated this past fall, majoring in Range Management. His home is in Butler, South Dakota. Bob was very active in the Forestry Club. As Chief Push of the 44th Foresters' Ball, he really did a bang up job. Bob is a member of Druids. His summer experience includes two summers with the BLM and one with the Forest Service.

Ken T. Worthington

Ken is a Wood Utilization major from Calgary, Alberta. He came to Montana after a year at the University of Alberta. A member of the Forestry Club, he helped work on the Ball. He has worked in a preservative plant and on a Christmas tree farm in Calgary.

David Sime

Dave, whose home is Gilly, North Dakota, attended the North Dakota School of Forestry before coming to Montana as a Forest Management major. He has lived several Foresters Convos and the Ball with his guitar. Dave worked three summers with the Forest Service at Thompson Falls, Montana.

ROSTER . . .**FRESHMAN "WOODTICKS"**

Aldrich, David
Aldrich, Rodney
Andersen, Teddy
Baenen, Raymond
Baptie, Barrie
Bingham, Gary
Carlson, Clinton
Cavey, Mike
Cloninger, David
Cluzen, Robert
Connors, Joe
Conrody, Douglas
Creekmore, Larry
Davis, Arden
Deminick, Raymond
Dunn, Dennis
Ferguson, Clyde
Todd, John
Roberts, Richard
Richardson, Bland
Roberts, John
Cosgriffe, Richard
Follinglo, Tom
Larson, Waldo
Gilbert, Alfred
Gueiff, David
Goetz, James
Hansen, Laurens
Harris, Edward
Hatch, Charles
Holmes, Donald
Hunter, Harold
Jacobs, Raymond
Jakub, Larry
Jewett, Charles
Klesig, Gary
Lemp, Edward
Lesnik, Mikael
Manz, Henry
Marceau, Gerald
Meadows, William
Meyer, John
Minor, John
Moorhouse, John

Noon, Robert
Oldberg, John
Osborne, John
Osmansi, Lee
Ferguson, Frank
Paro, John
Peterson, Donald
Rutledge, Philip
Ruth, Orris
Schaffer, James
Schauer, Arthur
Schmidt, Larry
Sleight, Douglas
Swanson, Vernon
Trudell, Edward
Vick, Peter
Washington, George
Wheeler, Frank
Pittman, George
Morgan, David
Lublinter, Larry

Cline, Donn
Goetz, Henry
Hansen, Royal
Hartley, Ernest
Hasterman, Art
McGill, Neil
Magera, Gerald
Morganstern, Charles
Rusin, Bill
Tainter, Frank
Wilson, James
Berton, Ronald
Bettesworth, Robert
Bright, Ronald
Buentemier, Ronald
Dermott, Conway
Gear, Andrew
Rembe, Reinhard
Riley, Robert
Scheid, Jack
Smith, Clifford
Storch, Robert
Todd, John
Wallhagen, Edward
Weaver, Blanchard

SOPHOMORE "LOGGERS"

Beebe, Thomas
Bradt, William
Brown, William
Cantou, Pierre
Coggles, Brian
Cox, Gary
Fauss, David
Folsom, David
Forrer, Ward
Fusko, George
Hamilton, Jack
Nickel, Richard
O'Connell, Larry
Sorensen, Garry
White, John
Klingler, Gene
Wedum, David
Billings, Forrest
Brown, Ray

JUNIOR "CRUISERS"

Bartley, Ronald
Bentzen, Raymond
Bergenheier, Richard
Bivin, William
Black, Richard
Blank, Alvin
Blanet, Russel
Bosworth, Bob
Broatch, Malcolm
Buech, Richard
Burgan, Robert
Buffs, Charles
Carlson, Tony
Cart, William
Cartwright, Doehler
Conrad, Ralph
Daris, William
Dern, George
DesRoches, Larry

SENIOR "FORESTERS"

Elliott, James
Fairless, William
Ferdinand, Duane
Goodermote, Donald
Gregory, Gary
Guilmette, Richard
Reed, Barry
Petersen, Charles
Wilson, Geoffrey
Wickstrom, David
Allen, Thomas
Bernhard, George
Betts, Marion
Carr, James
Gibson, John
Hornung, Kenneth
Inman, John
Janda, Charles
Kuhlman, Kenneth
Lambert, James
Lawrence, Thomas
Lenoue, Marvin
Lewis, Clarence
Lindgren, Roger
McBride, Fred
McCulloch, John
McDonald, Carson
Mader, Henry
Magone, Laurence
Meinrod, Robert
Mershon, James
Meyer, Neil
Michael, Albert
Miller, Richard
Toling, James
Reesman, Lloyd
Stegall, Carl
Harness, Errol
Denecke, Richard
Norby, Eugene
Noste, Nonan
Packee, Edmond
Poulson, Philip
Reimold, Rudy
Richmond, Timothy
River, Bryan
Roginske, Ronald
Rumley, Darrell
Sime, David
Smith, Neil
Stephenson, John
Tower, Art
Wamsher, Richard
Watts, Robert
Worthington, Kenneth
Young, Ronald
Cox, Dean

Abernathy, Richard
Appel, Ronald
Burns, John
Byrne, Dean
Cain, Carl
Chambers, John
Connolly, Guy
Croft, Clarence
Frohne, Richard
Greenwald, William
Guderian, Nevin
Hazen, Gerald
Heiser, Donald
Jacobson, John
Jenni, Donald
Johnson, Einar
Jones, Larry
Jones, Phillip
Kardos, Theodore
Lindh, Craig
Lundeen, Lloyd
Mohler, Jean
Silver, Thomas
Silvertsan, Maurice
Cheston, Wesley
Kovalicky, Thomas
Dieter, Robert
Hastings, Edward
Heidelbaugh, Curtis
Mabry, John
Matchett, Terry

Meek, Kent
Morton, David
Mosier, Charles
Parker, Gerald
Peterson, Glenn
Rose, Larry
Shalhope, Donald
Sherve, Robert
Stewart, William
Travers, Charles
Welch, Richard
Wiseman, Robert
Wineholt, Ellwood
Abbott, Raymond
Babcock, Richard
Eichhorn,
Keefe, Kenneth
McMichael
Miles, Edward
Rost, Maynard
Talbot, Bruce

GRADUATE STUDENTS

Barney, Richard
Colgan, Daniel
Carty, David
Dhilton, Paramajit
Fairman, Larry
Fudge, Charles
Guarnacia, David
Johnson, Paul
Klebenow, Donald
Klumph, Samuel
Laux, James
Lokemoen, John
Moorhouse, James
Murray, Robert
Quinn, Halton
Robinson, John
Storm, Gerald
Taylor, Alan
Traylor, Richard
Winchel, John

The
Waldorf Hoerner
Paper Products Company

offers

Best Wishes

to the

Graduates

of

1961

The Record of Progress . . .

(Continued from page 5)

by husky Swedes who often worked stripped to their underwear above the waist.

For two days Drake and I tramped over the sale area on snowshoes, taking pictures between snow squalls. It was gloomy with never a spot of sunshine. Only as we were ready to leave did the sun come out to give me a chance for a shot of Hank and the mules headed for town. The pictures I got on the trip reflect the dark weather.

I returned to the area the following July, when brush was being piled. It was on this visit that I hung my hat on a small branch protruding from the trunk of a white pine seed tree and took the picture which was to attract so much attention in later years. It was the Fourth of July, to be exact, and the brush pilers had gone to town to celebrate. I recall how peaceful it seemed working alone in the deserted woods, fragrant in the hot July sun. I didn't pay much attention to the locations from which I took a series of pictures that day. Why should I? It never occurred to me that I might return for followup views at a later time.

Just previous to World War II, I was given a definite assignment to locate as many points as possible from which pictures had been taken on this old Beardmore sale, mark them with stakes or monuments of a permanent nature tied into established corners or enduring landmarks, and retake the original views. Duties in connection with the war delayed the start of this project, and it was not until August 1943, that I was able to go to the area. The aspect of that bit of country had changed greatly since I had taken the first series of pictures twenty years before. Reproduction had been good on the old sale, and in places formed dense stands. Trying to find identifying objects in this jungle of new growth was a frustrating experience. For a couple of days I looked for clues without success.

John Murray, long a scaler on the Kaniksu, solved the puzzle after following some 40 miles of old chutes, mostly on snowshoes. One Sunday as he walked up the draw in which lay the rotting remains of the main chute, he notice another chute coming in from the side. The mouth of the draw in which it lay was almost obscured by young trees and would hardly attract attention except to the most careful observer. Proceeding up this draw (we later named it Hidden Draw), John came into a broad, basin-like swale rimmed with gently sloping ridges. Here were the missing points—almost all of them. Here was the tree on which I had hung my hat twenty years before!

During the war, travel was greatly restricted and forest officers used whatever vehicles they were able to commandeer. Assigned to me was an International station wagon of ancient vintage—a hard-riding dust trap which, nevertheless, gave good service during the years I used it. I gave the top a coat of aluminum paint to turn the sun's rays; hence the car was usually referred to among Forest Service men as "Swan's Silver Streak." Into this wagon went all sorts of equipment—camera boxes, tools for digging post holes,

iron posts, a kapok bed. Alas! A few years ago I found its remains in a wrecking yard on the outskirts of Missoula. May its bones rest in peace!

I finally marked the points Murray had found and took the necessary pictures. This happened in May 1944. Not far from the old sale area was famous old camp 164, originally built for CCC boys but occupied during the war by interned Italian seamen and a few German war prisoners. The cooks at this camp had served as chefs on luxury liners which were then languishing at piers in New York Harbor. Many of the men had played in ships' orchestras. They were ship captains, doctors, coal passers, cabin boys—all rubbing elbows and learning a more democratic way of life, so we all hoped. The men were friendly and eager to talk of their families whom they had not seen since the war started. Many of the Italians who were skilled craftsmen donated their free time to help build a Roman Catholic church in the town of Priest River. Forest personnel loved to stay at this camp where we all sooner or later acquired a taste for Italian cooking. Here it was that I made my headquarters.

Roy Phillips, then supervisor of the Kaniksu Forest, was very much interested in this picture-point project and soon appeared in camp to give me help. At the Falls Ranger Station was a supply of white-painted wooden posts and these were made available to me for marking points. These posts, 4 inches square and 6 or 7 feet long, were heavy and how to get them back in the woods away from roads became a problem. After talking with the camp superintendent, Phillips had four Italians detailed to help. Appointed chief of party was a captain who spoke good English, as well as four or five other languages, and told us wild tales of running the blockade in the White Sea. These recitations were timed to coincide with post-hole digging, which operation could be supervised conveniently from a comfortable sitting position at the base of a tree. The details of the captain's stories are half-forgotten, but I still have a vivid recollection of the trip from camp to the area; the captain beside me on the front seat while three Italians rode the load of posts in the back. The Silver Streak wrenched and groaned over rotten corduroy and through the mud holes as we approached the site of the old Tunnel Camp, but finally made it. Then each of the three men in the back shouldered a post and did some more groaning as we hiked up the old chutes and through the mosquito-infested brush. They were seamen, not woodsmen, these men, but they did a good job, notwithstanding. I always wished I might know how they fared when they were finally sent back to their homelands.

After my retirement from the Forest Service the photographic-point project was taken over by my successor, W. E. (Curley) Steuerwald, who has revisited many of those spots which were once so familiar to me. The program has developed into a job too big for one man to handle and consequently the individual forests are helping to a large extent in the rephotographing. Time will prove the worth of the project; in another fifty years or so some of these pictures may prove valuable beyond all expectations.

Photogrammetry . . .

(Continued from page 8)

viding qualitative information. The route strip is then selected by analyzing this information.

Other values can be obtained through photographs in common use. When the field forester meets a given problematical situation and asks himself why it exists, he could be helped through the use of photo-interpretation, particularly when the situation results from the edaphic, ecological, silvicultural, or land use characteristics of a given area. Quite often, in fact, the situation may even be recognized first while studying aerial photographs. Using a very simple example, let us suppose that while viewing a dense mature forest stereoscopically, the forester finds that one small portion has a definite change in character and that the portion is regular in shape. Why does this exist? The regular shape leads him to think that this results from land use, yet he is aware of no cutting operations in the area. He checks maps and records which indicate no activity. On the other hand, the portion does not appear to conform to the formal land survey, nor does it appear to conform to topography. Closer examination shows that the density of the mature timber is lower, and that there is a heavy understory of pole sized trees in the openings. By photo measurement he finds the area is approximately 600 by 1500 feet. Before concluding that this is a thinning plot established by forestry students, he deduces that this change in type is caused by very old mining activity. Out on the ground, his judgement is upheld. What value is this? The forester has answered one more very small question of the many existing in Paul's vast natural legacy.

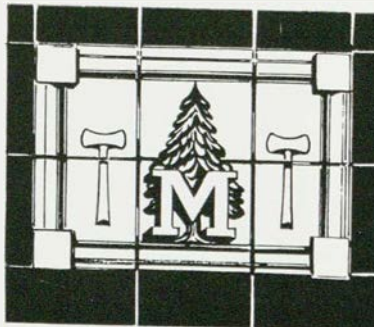
Forest inventory is certainly of everyday value to the forest manager, although stocktaking may not be an everyday duty. Our inventories are more accurate and current today as a direct result of aerial photography. Forest type classes can be more accurately delineated on aerial photographs than on the ground, and their areas can be determined from photogrammetric maps with greater reliability. The inventory is current because photographs have accelerated the data collection process by accurate stand stratification thereby reducing the total sample size. For these reasons too, the forest inventory can be kept current thus approaching a continuous forest inventory.

Ah yes! The "big eyes" have become very big and

very useful in more ways than we have time to recognize here. Photogrammetric engineers can now provide maps at any practical scale and accuracy for any land management job. Do you want a map having a scale of forty feet per inch and a one foot contour interval to use in planning an administrative site or a recreational area? It can be made photogrammetrically. The route strip selected in the reconnaissance can be mapped and the location can be designed with comparatively very few ground control measurements. Need to relocate lost corner monuments? It has been done, photogrammetrically. The photo-interpreter, if asked, can provide much of the data and information currently obtained on the ground. Would you accept an aerial inventory checked by a few ground measurements? Do you think you could use a continuous inventory based on periodic photographic sampling? Could the interpreter's delineation and analysis of soil-site conditions be used in rehabilitation planning? These are only a few of the potential applications. Some are being used now, at least to a limited extent. The future may see more achieve general application.

The forest manager is more and more a man of decision. He must decide which tools to use and where to apply them. He must decide whether old or new methods are better and which are the most economical. He must weigh the cost of his management against the indefinite value of the products. The result is an unending number of large and small decisions requiring an understanding of the problem and an analytical solution. Aerial photographs can help the manager solve his problems, yet they are only tools. The decision to use and apply them must remain to be the manager's responsibility.

Today we should realize that we have not only the big eyes but the arms, the legs, and the other accouterments to carry on Paul's work. We can dig some pretty big ditches, perhaps almost as big as Grand Canyon if we tried. We can certainly cut a big swath, fast, perhaps bigger and faster than we can restore it. Without a doubt we can swing an ax with such force that the shock waves should make Paul shudder. The problem, then, may be the same today, as it was yesterday, and as it will be tomorrow—to develop a mind and purpose big enough, individually and collectively, to use the tools and knowledge at hand, and those in the future in order to manage our lands with true wisdom.



(Continued from page 9)

has this "temporary" authority). There were also signs that the Movement was encountering snags. In 1910 eighty-five lives were lost and 2 million acres of forest were burned in Montana and Idaho. While TR was hunting lions in Africa, Pinchot, over the Ballinger dispute, arranged to have himself fired by President Taft.

In 1911 the Weeks law authorized federal purchase of forest land for the protection of navigable streams and so made possible the establishment of national forests in eastern United States. The law also established federal-state cooperation in fire protection. A Supreme Court ruling confirmed the National Forests, and the levying of grazing fees.

The appropriation Act of 1912 provided that ten percent of all forest receipts should be used for roads and trails. Need for access was demonstrated by the 1910 burn.

In 1913 the Migratory Bird Treaty Act was passed and San Francisco was given the right to construct Hetch Hetchy Reservoir in Yosemite National Park. Other acts permitted timber cut on a national forest in any state to be exported outside the state and the secretary of Interior to sell fire killed or damaged timber (without selling the land).

In 1915 the O & C lands were revested. The National Park Service was created in 1916, and ten million dollars were appropriated for roads and trails on the national forests. In 1920 leasing of deposits of coal, phosphate, oil, gas and other minerals was permitted. The Capper report on timber depletion, lumber prices, exports and timber ownership was submitted to Congress. The Association of State Foresters was established, and an act establishing the Federal Power Commission was passed.

An Act of 1921 prohibited development of water in national parks or monuments without specific Congressional authority. In 1922 land exchanges were authorized, and the first appropriation for camp grounds on the national forests was made. The Secretary of Interior was authorized to protect timber under his jurisdiction from fire, disease and insects.

The Clark-McNary Act of 1924 extended authority for purchase of timberland to include land valuable for timber production, as well as for protection of navigation. It also extended the authority of the federal government to enter into cooperative agreement with states and private forests for protection against fire, to cooperate with states in the production and planting of trees, technical assistance to private landowners through the Extension Service, and a study of forest taxation.

Exchange of land or timber for land was authorized in 1925 and the first World Forestry Congress was held in Rome in 1926.

The McSweeney-McNary Act of 1928 established a program of forest research in all fields of forestry, and range management. Hoover dam was authorized on the Colorado River.

In 1930 the Knutson-Vandenberg Act permitted collection of money from timber sales for reforestation. The Shipstead-Nolan Act provided for the maintenance of the canoe area in its natural state for recreation in the Superior National Forest.

In 1931 the Society of American Foresters endorsed public control of cutting on private lands. The majority favored state rather than federal control. The Capper report appeared in 1933 which marked the beginning of the New Deal.

The Civilian Conservation Corps, The Soil Erosion Service (which became the Soil Conservation Service), the Agricultural Adjustment Administration, the Tennessee Valley Authority and others were established and the Code of Fair Competition for Lumber and Timber Products Industries was prepared under the National Industrial Recovery Act.

In 1934 the Prairie States Forestry Project was established and the Taylor Grazing Act passed, which placed the remaining public domain under a program for development and use under the administration of the federal Grazing Service. These were the lands which had not been homesteaded but by unregulated use as a "commons" had become successively poorer. After a long period of study and negotiation and after the states had refused to accept them as a gift from the federal government, Congress adopted the Taylor Act as a last resort.

The Resettlement Administration was established in 1935. Their purchase program of submarginal cropland created the old land utilization projects, which were administered successively by the Soil Conservation Service, Forest Service and Bureau of Land Management. The remnants still under Forest Service jurisdiction recently were rechristened the National Grasslands.

The Flood Control Act of 1936 provided, for the first time, for upstream work to reduce floods. This watershed work was turned over to the Department of Agriculture. The National Park Service was directed to make a comprehensive study of the recreational needs of the country on all lands, except those under the jurisdiction of the Department of Agriculture, to develop plans and enter into agreements for establishing parks, parkways and recreational areas. This authority is still in effect and serves as the basis for a comprehensive program in outdoor recreation developed by the National Park Service.

In 1937 the Norris-Doxey Cooperative Farm Forestry Act provided for extended technical assistance to private woodlot owners under the administration of the Soil Conservation Service with participation of the Forest Service and Extension Service.

During the war many programs were halted as all effort was put to producing more food, fiber, wood and minerals.

The Sustained Yield Act was passed in 1944 in an attempt to stabilize timber communities and lumber prices.

An international forestry organization was es-

tablished under the United Nations in 1944 and the first copy of its publication, *Unasylva*, was published in 1947.

The Grazing Service was reorganized into the Bureau of Land Management in 1946. The Forest Service Reappraisal Reports showed timber being cut at one and one-half times the growth rate, and most cutting on private land was destructive.

The Water Pollution Act of 1948 authorized financial and technical aid to states and municipalities in pollution control.

The Anderson-Mansfield Reforestation and Re-vegetation Act of 1949 provided for more rapid reforestation and range land improvement on the national forests.

The Granger-Thye Act of 1950 limited grazing leases to ten years and provided for Grazing Advisory Boards on the National Forests. The Cooperative Forest Management Act of 1950 nullified the Norris-Doxey Act and provided for technical assistance to farm and other woodlot owners under the administration of the State Foresters in cooperation with the Forest Service. A water policy for the American People was submitted by the President's Water Resources Policy Commission.

Resources for Freedom was issued by the President's Materials Policy Commission in 1952. This was the first forward looking report on natural resources which emphasized national growth and planning for the development and use of resources to meet the needs of an expanding economy. Most resource reports issued since then have adopted the pattern of this report.

In 1953 the sum of five million dollars was appropriated for a pilot program for studies and programs for control of small watersheds. The program for timber access roads was expanded. A partnership policy for water development was announced. The Small Watershed Act (Public Law 566) was passed in 1954.

In 1955 we were in the midst of the Echo Park dam controversy. The Multiple Use Mining Act was passed and the Timber and Stone Act, passed in 1787, was repealed. It had had little use in recent years. Timber Resources Review was issued and the Forest Service celebrated its golden anniversary.

The Park Service issued Mission '66 in 1956 and the Soil Bank bill was passed. The water pollution act was continued and the Small Watershed Act

was amended to provide full federal support of flood control costs.

1957 marked the 50th anniversary of the Conservation Movement which had its official start with the famous Conference of Governors in 1907. Operation Outdoors was launched and the establishment of further sustained yield units was discontinued. A Wilderness Bill was introduced.

The Outdoor Recreation Resources Review Commission was established in 1958 and Alaska was admitted to the union and given right to 103 million acres of public land to be selected over the next 25 years.

In 1959 five conversion plants to produce usable water from sea and brackish water were authorized.

Last year a Multiple Use Bill was passed and the fifth World Forestry Congress was held in Seattle. The BLM proposed mission 2012 and the Senate Select Committee on water issued a comprehensive report.

In 1961 we face a host of issues in the field of natural resources. Many of these are old with new emphasis, some are now with an old flavor. Programs in all resource fields have taken on new life. In forestry, small woodlots are getting renewed attention. Access road programs, recreation development, research, wildlife and range are being pushed. A new program for rangelands is being proposed. Bills for a Wilderness system and a National Youth Conservation Corps are being reintroduced with greater hope of success. The Small watershed bill has set a new goal of 2,000 watersheds this year. Interest is picking up in Soil conservation. Multiple purpose watershed development is expanding, water pollution control is singled out for special action.

The Conservation movement has come a long way in 50 years. There is now general public acceptance of the importance and need of conservation. The problem is not so much "whether" or "what," but one of "how" and "who".

It is no longer so easy to clearly define the issues and the battles are on a far more sophisticated plane than they were fifty years ago. Deeper understanding is required now more than ever before and it is more difficult now to be fully informed of the issues. The professional in natural resource fields has to have better background and develop better understanding of the whole political and economic arena than ever before.

Fire Control . . .

(Continued from page 11)

construction. The technique of using bulldozers in pairs has become a very effective method of increasing the speed of fire construction.

Spread of wildfire has also been stopped by the use of certain chemicals, especially during the last one. Hundreds of candidate chemicals have been and are being tested as fire retardants and suppressants. These chemicals are dropped from the air on fires, are used to fireproof fire lines, and are also used for suppressants in the path of fires. They are used in tankers for ground application as well as being dumped from low flying aircraft.

The most promising of the chemicals tested to date are calcium borate, bentonite clay mixtures, and a gel formed from algin. With the tremendous advances being made in the chemical industry, there will no doubt be many promising chemicals yet developed for the suppression of fires. The effective use of chemicals is of course based upon the ability of the fireman to place the chemical on the fire at the proper time and place. Here again, accessibility is a factor as well as timber type. In order to be effective, the chemicals must reach through the crown canopy to the fuel that is burning. Advances made by the aircraft industry in adapting planes for chemical delivery to fires have been utilized to the fullest extent in this effort.

Underlying the progress of forest fire control techniques throughout the past fifty years has been the ever growing knowledge of wild fire behavior and the ability to predict wild fire behavior from a given set of circumstances. This problem has been attacked by observation of going fires and by studies made after the major burning period of a fire is over. Reliable information from this source has always been limited because there never has been enough samples of all the combinations of fuel, topography, and weather possible. There are too many possible combinations of these three items to sample in the field.

The U.S. Government, seeing the need for extending knowledge of wild fire behavior established two multi-million dollar laboratories in the United States to duplicate the complex variety of circumstances encountered at the sites of wildfires. In this way, it will be possible to study fire behavior under the numerous conditions of fuel, topography, and weather, and to have necessary information for the job of predicting fire behavior under all conditions. By modeling fires and studying their behavior in "controlled atmospheres", a complete range of fuel moisture conditions as well as weather conditions may be duplicated for study.

From the past, men engaged in the Science of Forest Fire Control have learned to keep pace with other scientific developments that aid in the solving of fire behavior and control problems, as well as to develop and use equipment and techniques (specially designed for the fire job. The look ahead into the next fifty years, indicates a very rapid development in all these ventures, especially in the field of fire behavior prediction and chemical control of fires from the ground and from the air.

The School . . .

(Continued from page 13)

Faced with a large enrollment and inadequate quarters in Main Hall, the new Dean was confronted with the necessity of providing for a Forestry building from his meager budget. The construction period extended into the 1914 fiscal year, and was finally completed with the assistance of the faculty and students wielding hammers and saws before they were permitted to move into their new home. The structure was a two-story frame building, consisting of three offices and three classrooms. It served all foresters on campus including the annual Short Courses until 1924, when Pinchot Hall was completed. During this period, the "Shack" provided the academic home for 38 graduates including one Master's. The Short Courses were discontinued in this year. A photograph of the 1924 representatives now hangs in Room 206. It includes Clayton Crocker who retires this month from his position as Assistant Regional Forester. His son Jack graduated from the School of Forestry in 1951.

Montana's 1923 legislature provided a special appropriation for the construction of Pinchot Hall which was available for class instruction in the following autumn. It was designed to accommodate 100 students and a faculty of five. It now cares for 375 students and part of a faculty of 15. Cook Hall, a World War One (1918) wooden structure accommodates the overflow by providing one classroom, a small fire laboratory, four staff offices and five small offices for graduate assistants and research fellows.

In the 48 years of its existence, the School has graduated 1,020 students with the Bachelor of Science degree, 22 with a Master of Forestry, 33 with a Master of Science in Forestry, 7 with a Master of Science in Wildlife Management, and 1 with a Master of Science in Forest Conservation.

The existence of a School of Forestry on the University Campus makes possible other forestry activities. At Montana this consists of the Montana Forest Tree Nursery, which now has an annual capacity of 1½ MM trees, a Forest and Conservation Research Experiment Station with an annual budget of \$55,000 and a part time staff of 12, a Research Forest of 22,200 acres, and a Cooperative Forest and Conservation Research Library.

The origin of the Nursery dated back to 1924 when the School was invited to cooperate with the U.S. Department of Agriculture through the Forest Service under the Clarke-McNary Act.

The Experiment Station was authorized by the 1937 State Legislature. The Act is well written and anticipates the areas of research that the School will want to engage in for many years into the future. Section 7 provides for a library, and Section 11 for the acceptance of gifts of lands or other donations. This paved the way for the gift of the Lubrecht Forest from the Anaconda Company and the Northern Pacific Railway in 1937, the Senior Camp and Research Center near the Thompson Lakes in Lincoln County, from the J. Neils Co.; the Sophomore Camp and Research Center at Greenough from the Anaconda Co. and the support of the maintenance and operation of the Cooperative Research Library with the assistance of the United States Forest Service and the State Forester.

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