The Spring Picnic

By MILLARD EVENSON, '33

Until two years ago, the Spring Picnic, held in honor of the Senior class, had always been a stag affair; but at that time, with interest dropping off rapidly, it was decided to change it to a date affair. This was so successful that another was held last spring on the open slope above the power dam across the Missoula river from Milltown.

Two busses were chartered to take the crowd from the Forestry building to within half a mile of the picnic grounds. Fortunately, the club was favored by "Old Sol" on this day and the rain was held off.

The first activity, the rifle range, opened up at 1:30 o'clock as a preliminary entertainment. At the same time, a baseball game was started, as well as a horseshoe throwing contest among the professors. On the hill a number of the boys were showing the fair maidens what they knew about transits and demonstrating their value in viewing distant shapes and objects.

When a maximum crowd had gathered, a horse-packing contest was staged. Between wild (?) broncs and a limited amount of profanity, Earl Welton and Elmer Cyr packed their loads, lead their bronc around a prescribed course, and unpacked first.

Even though the snow was still deep in the mountains and the sun holding off in the south, some of the fellows put on calk boots and staged a log-rolling contest in the pond below the bluffs. The winner was not determined but a three-way draw was called among Pool, Landall and Hague, since they got the fewest duckings.

The most exciting contest of the afternoon was one held to determine which had the greater amount of "beef" — the grazers or the engineers. The grazers won the cigars by defeating the engineers in this tug-of-war.

The next contest, a three-legged race, received a lot of competition since fifteen couples were entered. Mildred Dorsey and Gene Forbes won

easily, loping their way across the line as though they had practiced it for years.

Now that the horses were rested from the packing contest, they were warmed up for the apple race. Many laughs were heard echoing through the hills as the crowd watched the riders with lances trying to spear apples on the ground from the hurricane decks of jumpy, nervous broncs. Whether the horse or rider was the more excited is hard to tell. Anyway, "Ole" Olson made his debut as a cowboy from the wide-open spaces from east of the mountains.

For this occasion, the club had obtained the help of "Dad" De Jarnette to put on a real barbecue. With the first call from "Dad," the crowd formed a long, snaky line to the grub pile. Although the number of hikers present was not counted, it is known that 90 pounds of barbecued beef, 100 pounds of fire-baked spuds, 10 gallons of bean-hole beans, plus other necessary accessories disappeared in the rush to satisfy keen appetites.

After the sun had set and the air had become chilly, it was not hard to assemble the gang about a huge campfire. With its array of colored blankets, the encircled crowd resembled a council of Indians. First, the winner of the tree guessing contest was announced, the honors going to Mildred Dorsey for guessing the right height, and to Gene Fobes for guessing the correct age of the tree. A gavel was then presented to Jack Shields, the retiring president of the club.

Singing both by a quartette accompanied by Fay Clark on his banjo, and by the crowd, plus a lot of tall story telling kept the crowd entertained until they were ready to go home.

Before the picnic was over, plans were being laid for the coming picnic so that we are looking forward to an exciting time again this coming spring.

Those in charge of the picnic were Millard Evenson, Joe Hessel, Jimmy Kirby and Al Spaulding.

Mountain Sunset

By Joel Frykman, '33

The sun's fiery ball in its glorious setting descends to the rim of the world, flooding the highest peak with a golden glory. The peak's massive shadow, lengthening into distance, covers all and envelopes the deep somber valleys with an impenetrable shroud. The sun forgets this world and dropping away, leaves all in peace with the night sounds of chirping birds, the lonely mourning dove, the whispering breezes, and the far away roar of a stream whose work never ceases. While the peak, like a silent, watchful sentry, guards it all.

The prize boner—To take the examination in a course that you have dropped.

Hinman thinks that the first man through this school must have had a hard time.

Remnants

By Richard Gallup, '35

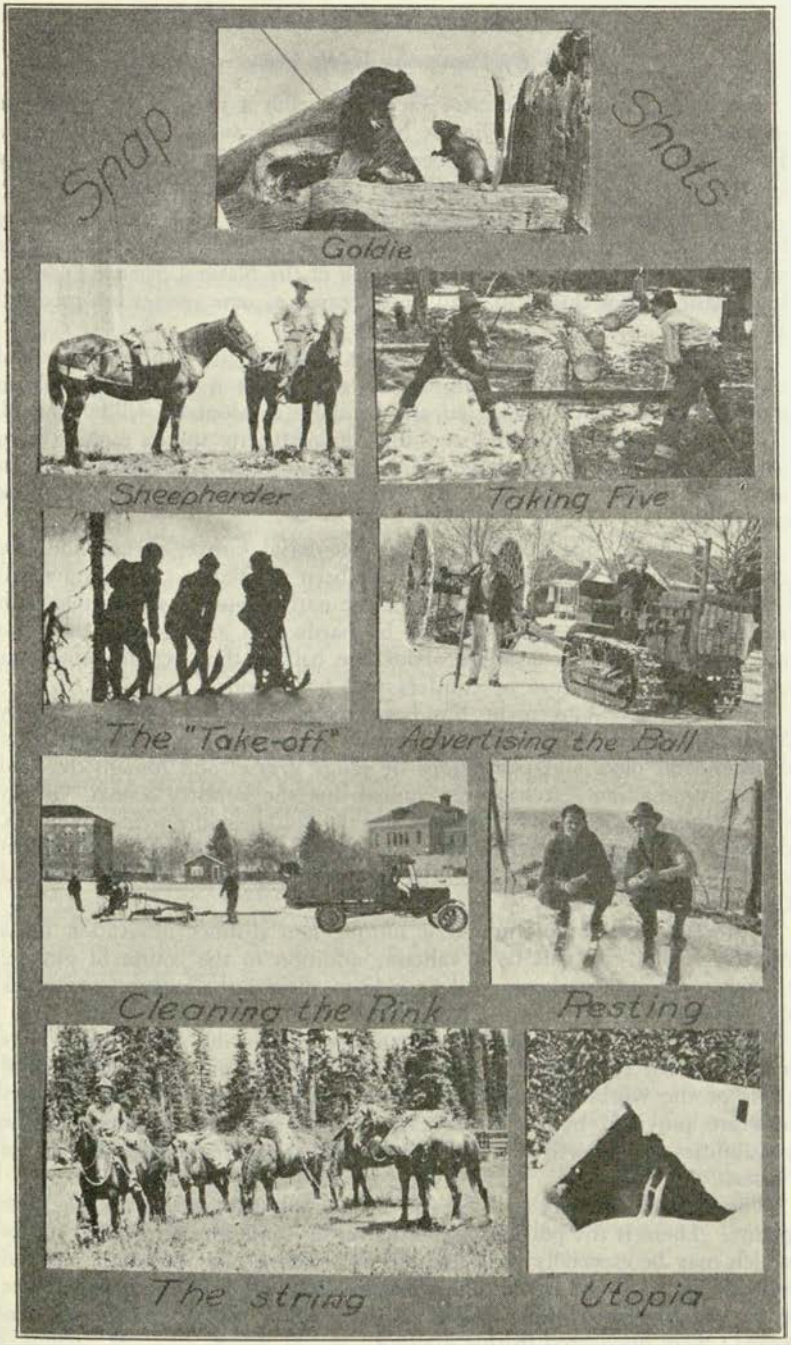
Craggy, bare and gnarled they stood,
Remnants of a mighty wood.
Up the lowering mountain side
Like Tartars o'er the hill they ride,
A hundred feet above the ground
Their ugly branches bare and round.
Their trunks were scarred with ugly burns
Hollowed out like blackened urns,
While round their feet in mad array
The fallen ones entangled lay.

Day after day like warrior speers
That ancient host stands there and leers.
And always in the winter months
When cold wind whistles, slaps and bunts,
They moan and creak and cry aloud,
Those ancient wrecks that once were proud.
In the long days of summers beat
Their graying sides are cracked with heat.
They seem to wait but for the day
When age-old debts of hate they'll pay.

Some day in August hot like flame
Will brew the lightning storm and rain;
And down the crag-strewn mountain side
A flame white hot, a bolt will ride.
An ancient cedar, parched and high,
Will suck the bolt from out the sky.
Like coils of some great writhing snake,
Around and down its course will take;
And up upon the mountain side
A devils dance will soon preside.

The twisted trunk is torn asunder;
Its falling mingles with the thunder.
Thin red tongues in snickering glee
Take up the demons' symphony.
From knotted branch to crumbling boles,
The train of red destruction rolls;
The smoke goes up a quivering plume,
For smoke and flame are bride and groom.
And now these grim old windswept ranks
For this last battle gird their flanks.

The silviculture class is still wondering what kind of a saprophyte saps the life out of the little seedlings.


Snap Shots
Goldie
Sheepherder
Taking Five
The "Take-off"
Advertising the Ball
Cleaning the Rink
Resting
The string
Utopia

The Forestry School Arboretum

By Professor I. W. Cook

For a long time the Forestry faculty has felt a need of an arboretum in addition to the present Forest Nursery as an aid in class instruction. Fortunately, this need has now been filled through the timely aid of labor furnished through the Reconstruction Finance Corporation last fall.

The arboretum was planted in a one hundred foot strip extending from the Kirkwood Memorial Grove southward along John avenue to the new tennis courts which are located north of the Natural Science building. It is planned that this strip shall be increased as new species are procured and planted.

The plans are to plant all tree species native to the United States and all of the most important commercial exotics that it may be possible to grow in this locality. In addition, shrubs native to Montana will be planted.

At present, twelve hundred trees including fifty-five species ranging from two to seven years of age have been planted. Six by six foot spacing was used, permitting necessary cultivation until a good crown cover shall be established.

On the north side adjacent to the Memorial Grove, shrubs and low growing conifers, such as Junipers, have been planted so that nothing will detract from the grove. Next to this, the native conifers are planted with a single species to a row followed by hardwoods arranged in the same way. This formation occupies about one half of the site; the remainder is planted in a mixture of conifers and hardwoods.

A co-operative agreement has been made with the Northern Rocky Mountain Forest and Range Experiment Station for the establishment of experimental plots and plantations of range grasses and foreign tree and shrub introductions. It has been agreed that the Forestry School Nursery shall furnish the land and irrigation and the Station will provide the plants, culture, and keep a record of the results. The area set aside is a sixty-foot strip adjoining the arboretum on the east and extending from the Memorial Grove to Sixth street.

A forage grass arboretum is a unique and distinct innovation for a forestry school. It will be a valuable addition to the course of grazing management, as the classes will be able to observe the experimental work on grasses.

The foreign tree and shrub plantation will give the arboretum a large additional list of exotics. These trees and shrubs are collected from all parts of the world through the efforts of the Bureau of Plant Industry and are provided by them for experimental planting to determine the possibilities for growth of these species in various regions of the United States.

The School Nursery will profit by the observations made of these plants. There is the possibility of discovering some foreign trees or shrubs which may be especially well adapted to Montana climatic conditions and worthwhile to introduce into the state for shelter-belt plantations. Three of our leading shelter-belt species (Russian Olive, Chinese Elm, and Caragana) were discovered in this manner.

The School of Forestry News Letter

Published by the Montana Druids

By WALT POOL, '33

You will notice with a glance at Graduate Directory that the Montana Forestry School has men scattered throughout the United States and its possessions and several foreign countries. The first man to graduate, finished his school work in 1904. With a period of 29 years of graduating classes that have scattered as these men have, you can easily see that trying to develop an element that will bring all of these men into contact with each other, with the Forestry School, and with men who are looking forward to graduating, is no small matter. It was with this thought in mind that the Montana Druids decided to publish a News Letter to be sent to all of the graduates of the Forestry School. We could see advantages for the Forestry School and each graduate, if we could develop some link by which all of these men could be brought together to work as a group, rather than as individuals, none knowing where his classmates were or what they were doing.

The News Letter has been in existence for two years now and the responses which it brings from the graduates are on the increase, which seems to indicate that the graduates are back of it and want to see it continued. With the first issues of the letter, there were a large number of graduates on the missing list since we did not know of their whereabouts. The last letter sent out has no missing list. We have been nearly two years locating all of our graduates, but now we have them all and we feel that that is accomplishing something, at least.

The News Letter is edited by the Montana Druids. Each year, a corresponding secretary is elected from this group and this secretary becomes editor-in-chief of the News Letter and has charge of its mailing throughout the year. An attempt is made to send out two letters a quarter. For each letter the editor has to call for help from the Druids. He has some of the boys make several of the write-ups, and usually one of the professors writes an article in each letter. Others help with the stapling and mailing. All in all, the Druids, both students and faculty, work together in fine shape.

The News Letter has in it the activities of the Forestry School, the Forestry club, and the Druids. It has an exchange column where letters from graduates or news concerning them is passed on to the others. Each issue of the Letter carries a list of changes and addresses. Out of 160 graduates there is quite a little moving around, and we try in the News Letter to keep all of the graduates posted as to the locations of the others. In it are published short articles on main topics of the present time that pertain to the forestry profession. In each issue an attempt has been made to have one of the faculty members write an article on some topic that is of importance in forestry and of interest to the graduates.

Evans Hawes, '32, was the Editor-in-Chief of the News Letter for the first year. Walter Pool, '33, has been the Editor for the past year. Jack Hinman, '34, is to be the Editor for the next year.

Just Suppose

Brown	Catching butterflies
Lawrence	Chewing "snus"
Foley	Proposing
Jack (Cannonball) White	Driving over 20 miles per hour
Earl Welton	Awake in class
Shields	Parting his hair in the middle
Wagner	Acting grown-up
Benson	Inspecting art models
Dean Spaulding	Using one-syllable words
Holgren	In a hurry
Landall	Pledging the Kappa Delts
Professor Ramskill	In overalls
H. Welton	Smoking his own cigarettes
Bob Meyers	As Wallace Beery
Walt Pool	Without a Joke
Professor Cook	Being nonchalant
Neff	Dressed like a Forester
Fosdal	Taking it easy
Curtiss	Stepping out on Aileen
Sparrow	Singing "Home on the Range"
Gallup	Resisting the wiles of a waitress
Professor Clark	Driving an Austin roadster
Matsen	Falling for a Home Ec girl
Brooks	Brewing coffee for the 4-Ls
Whitaker	Without a political job
Hinman	Lack of enthusiasm
McCarty	Taking care of the skating rink
"Snake" Stephens	Not making love to his pals' girls
Davis	Overlooking a political argument
Jensen	Dancing
Rauma	With an Irish brogue
Hancock	Not holding his liquor
Hall	Not talking in class
"Major" Quinlin	Not grandstanding
Mary Wilson	Without "We"
Harrison	Without boots
Wilkie	Talking
Brierley	Without black eyes
Dobrinz	Tap-dancing
Frykman	Eating shrimp
Evenson	Taking a corner on more than two wheels
Calkins	Not in school
Hague	Acting like Wagner
Morrison	Without Climax
Robbins	Sober at a dance
Stein	Not willing to help
Merriman	Good humored like Irish

ATHLETICS

By Fred Benson, '33

The students of the Forestry School were well represented in all branches of athletics.

Football—This is the first year for some time that there has not been one or more forestry students on the Varsity team. However, we were represented by several members on the Cub squad. Of these, Leonard White, William Wagner and Jack O'Brien made their numerals last fall.

Basketball—In the Intramural basketball tournament the Forestry School team, under the direction of Dr. Hitchcock, won two of the five games played. The team won from the Pharmacy and Journalism teams and lost to the Business Ad, Law and the Arts and Science teams. The members of the team were Jack White, "Sandy" Hancock, Karl Ostrom, John Price, George Roskie, Joe Wagner, Jack Hinman, George Hinman, Rufus Hall, James Burnett, Chandler Jensen, Jack Stockman, Earl Welton and Fred Benson.

Track—Al Flint, Jack White and "Chuck" O'Neil won their letters in track last spring. This was Flint's third year in track, for which he was awarded a blanket. Al Spaulding and Fred Benson were out for Varsity track. Ed Simons and Arthur Periman were on the Cub squad. Larry Neff was Varsity track manager last spring.

"M" Club Tournament—Several of the forestry students took part in the tournament this year. Three of last year's champions, Myers, Brooks and Benson, took part in the wrestling along with Stephens and Stockman. In the wrestling event Benson threw Brooks in the 128-138 pound class, Meyers easily defeated Grattan in the 168-178 pound class and Stephens outclassed Stockman in the 148-158 pound class. In the boxing division we had two entries. Tom Brierly was entered in the light-heavy class and Fred Herweg in the lightweight class. Brierly lost to Hardison and Herweg to the defending titleholder, Brown.

Swimming—In the swimming events Landall was the only forester entered. In the Intramural he won the plunge for distance, placed second in the backstroke and fourth in the 220-yard free style.

Hockey—The hockey team this year made a good showing. The team tied with the Lawyers and the Independents for second place, the Arts and Science team winning first. The players participating were Lloyd Hague, Millard Evenson, Bob Cooney, Mark Lawrence, Tom Brierly, Charley Austin, Linc Landall, Ed Dobrinz, Egan Goodacre and George Brooks, who acted as manager of the team. Goodacre was selected to play on the All-University team.

Fred (in Systematic Botany)—"Say, the beard is too short on that rye you drew."

Walt—"Oh, that's all right; it just had a shave."

Does Fire Protection in Ponderosa Pine Pay?

(Continued from page 13)

duce a second crop equal in volume to the original stand. According to Forest Service and Timber Protective Association figures, three cents per acre over a long period will be ample for the best of fire protection on this protection unit of 23,000 acres, or a cost of $690 per year for this area. If adequate fire protection had been given this stand during the past 120 years, the total bill would then be $82,800.00 (120 x $690.00). It is an established fact that the best type of fire protection will eliminate practically all fire depreciation in ponderosa pine stands. Then it is also true that the protection expenditure of $82,800.00, if made during the past 120 years, would have saved values amounting to $173,760.00. Thus the net return from fire protection during the 120 years could be computed as $90,960.00 in this logging chance.

Does fire protection in ponderosa pine pay? The preceding facts indicate that organized fire protection does yield big dividends, even when considered only from the standpoint of depreciation in lumber values caused by fire scar in a certain proportion of the merchantable trees of the stand — a consideration that entirely overlooks damage to the future stand through death of young growth, loss in watershed protection values, and depletion of soil fertility. The foregoing example of loss from fire represents only a small area. The entire commercial range of ponderosa pine covers approximately 40,000,000 acres scattered from British Columbia to the Rio Grande. Assuming that this vast area of timberland has suffered fire losses during the past two centuries in the same ratio as the example I have cited, the total net loss chargeable to fire is $302,400,000.00. Fire protection in ponderosa pine does pay.

Seen-Area Mapping

(Continued from page 20)

left upon their own initiative: some preferred topping the tree out, then fastening their sketchboard atop of the stump by various devices; others used still differing devices and attached the board to the side of the trunk. All new devices and methods were "passed along" with suggestions, but no definite standard for tree-top mapping was mandatory. Mapping was accomplished from heights of around 50 feet, often, to a few at 100 feet and more. Fortunately, however, points appearing heavily timbered often supported sufficient openings from which the mapping might be done by considerable shifting of set-ups so as to eliminate the necessity of the tedious, as well as dangerous, task of tree-top mapping.

In conjunction with the point locating and seen-area mapping a sketch plat showing relative positions of patrol points, routes, etc., with reference to main point was drawn showing estimated distances and directions.

Upon completion of the observation point location and seen-area mapping work certain informational data regarding improvement possibilities, forage and water facilities afforded together with a brief description of the point itself were recorded upon a special form provided for that purpose. These data also consisted of a profile plat of each observation point selected showing abney level shots graphically from which could be determined the height of observation tower necessary to provide maximum area coverage therefrom. Each major point, together with patrols if any, were permanently marked upon the ground at the time these data were gathered.

A careful and thorough check inspection of the work being done by each mapper was made within ten days after he started, usually at the second or third point mapped. This consisted of going over the entire work done by him, locations, seen-area maps, notes, improvement data and ground markings. If he was within the limit of error a second check was not made for three weeks or so; if not, he was given assistance and again checked within a week or so. Two to four checks of each man's work were made during the season. These check inspections were made by the officer in charge of the unit or by Regional Office men assigned to such work.

All observation possibilities were mapped. The average intensity was one position for every three to four thousand acres of area within the unit worked. The average gross time spent by the mappers was two man-days per point mapped. The approximate average cost per point worked was ten dollars, including salaries and expenses. This figure may seem high at first glance but if one stops to think of the great amount of travel time involved Saturday afternoons, Sundays, and visibility interference it will then appear well within reason, more so, too, if one realizes that a few ten dollars spent to be certain of lookout position values is far less expensive than the old method of spending five hundred dollars for improvements and then finding them on the wrong point.

Visibility during the past season was exceptionally good and interruptions for fire duty few so that the work throughout the region progressed rapidly, completing approximately one-third of the entire program. Plans call for completion of the work for the region within the next two seasons.

Some Factors Influencing the Supply of Big Game Animals

(Continued from page 17)

Killing of game by hunters is, on some areas, the most important factor in limiting the supply. In the best system of game management the range is stocked to its carrying capacity and only the surplus of game animals above this is killed by hunters. To properly carry on this system much more information on the supply of game must be had than is available for our mountainous areas.

Obviously the young animals should not be killed. With the polygamous animals such as elk and deer, there is usually a surplus of males in the herds and the "buck law" allows the killing of males only. This, of course, has its limitations, but so far in this region, it has resulted in a gratifying increase in deer wherever applied.

The number of hunters increases each year and, as there is no restriction on the number of times they may take the field or of the area in which they may hunt, concentration of hunters on the easily accessible areas has resulted in the depleting of these areas of game. The more inaccessible areas are, in many cases, overstocked with game.

It would seem that the logical solution to the hunting problem would be to first limit the number of hunters that may take the field; second, designate the area in which each hunter may kill his game; third designate the sex and approximate age of the animal to be killed.

SUMMARY

1. The winter range of game animals is restricted mainly to the mountainous areas of this region.

2. Agriculture and stockraising are chiefly responsible for this.

3. The mountainous areas are not suitable for winter game range because of snow conditions which limit the food supply.

4. Elk and deer have adapted themselves to this type of range to a certain extent but are subject to many factors not encountered on the unrestricted prairie and foothill range.

5. Concentration of animals to areas of lighter snowfall results.

6. As snow conditions become more severe the animals have less choice in diet and are forced to eat unpalatable, coarse, indigestable plants harmful to them in several ways.

7. Under the worst conditions many animals starve or die from intestinal inflammation.

8. Grazing of domestic animals removes forage needed by game on some areas.

9. Salt (or soda) is necessary to grazing animals in the mountains.

10. There are two important sides to the predatory animal problem. A certain number of carnivores are necessary for the well-being of the herbivores.

11. Poisoning of predators must be very carefully done; otherwise an unbalance is created.

12. Game animals are subject to many diseases.

13. Concentration on the range tends to develop epidemic diseases from endemic diseases.

14. New diseases are being discovered currently.

15. Pneumonia results from undernourishment, exposure to severe cold and heavy infestations of parasites.

16. Hunting is a controllable factor at present but very unscientifically controlled.

CONCRETE EXAMPLE OF HOW SOME OF THESE FACTORS OPERATE

In the fall of 1932 a concentration of mule deer on Burdette Creek, a small tributary to Fish Creek in Mineral County, was noted. About 500 deer were in an area of about five square miles on this watershed. During the last few days of the open season for hunting, a new road to this area was opened which allowed a heavy concentration of hunters and the kill was comparatively large.

Deer in this vicinity subsist during the winter almost wholly on such browse plants as ceanothus, willows, mountain maple, snowberry and wild rose. Some grass and weeds are available during the less severe winters.

Snow fell in January to an average depth of about four feet. Thaws and cold weather crusted this snow, further concentrating the deer to an area of perhaps less than one square mile. The only food available for some time was coarse willow stems and lodgepole pine needles and the deer were in poor physical condition the middle of February when temperatures of 56 degrees below zero were recorded. These deer are normally infested with wood ticks, larvae of deer bot-fly, liver flukes and larvae of two species of dog tapeworm.

Undernourishment, heavy parasitization and severe inflammation of the digestive tract were responsible for the extremely poor physical condition of these deer, which resulted in pneumonia when the extreme cold weather happened. A heavy loss, of course, took place.

Mitigation of any of these detrimental factors would have saved at least a part of this deer loss, but the factor of "concentration in a mountainous area," which experiences periodical snowfalls of such depths is the fundamental cause of such losses.

(*) Paper read before Northern Rocky Mountain section of the Society of American Foresters, March 20, 1933, at Missoula, Montana.