ROOT AND BRANCH

BRITISH COLUMBIA FOREST SERVICE LANDS DEPARTMENT

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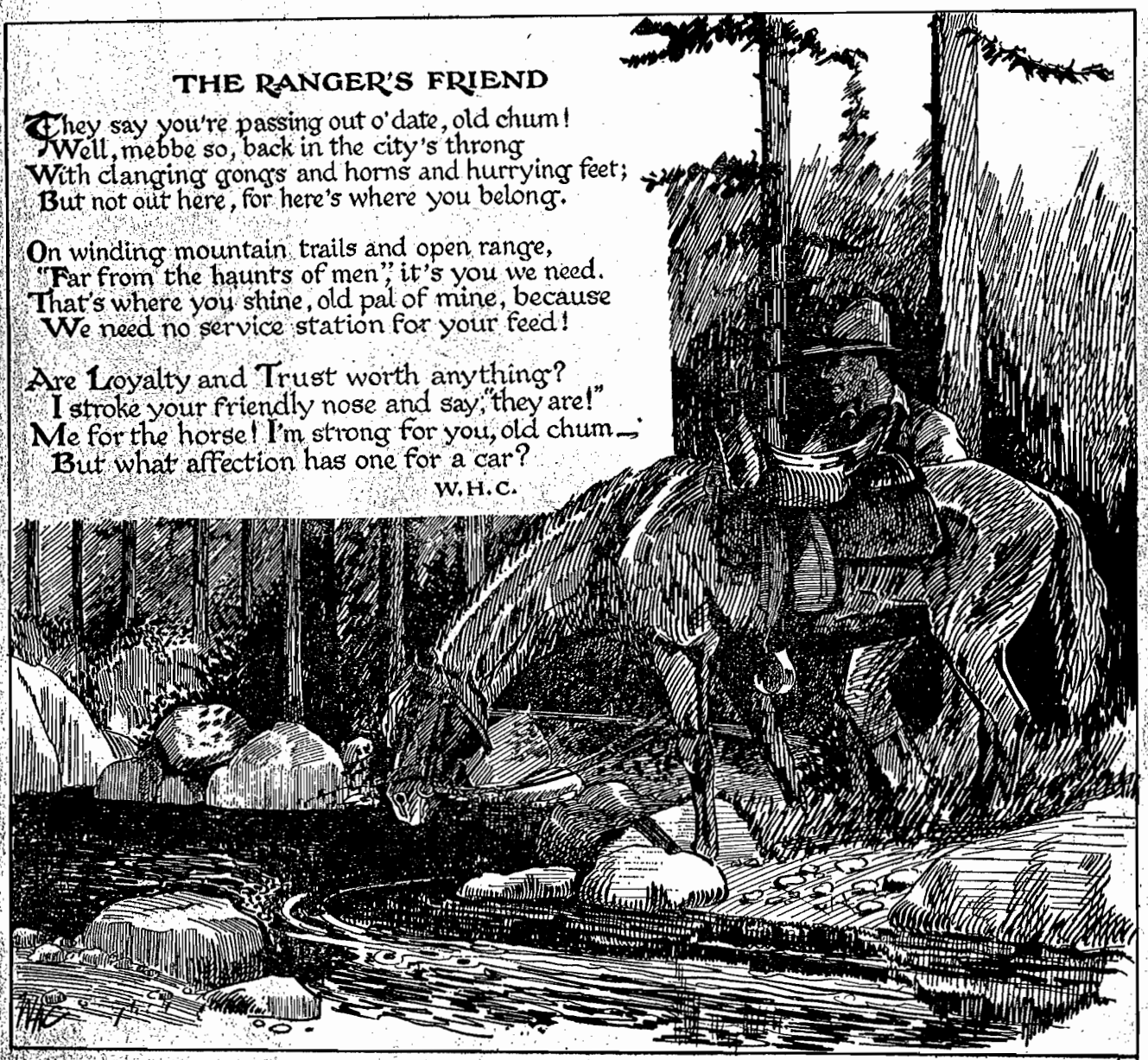
THE RANGER'S FRIEND

They say you're passing out o'date, old chum!
Well, mebbe so, back in the city's throng
With clanging gongs and horns and hurrying feet;
But not out here, for here's where you belong.

On winding mountain trails and open range,
"Far from the haunts of men", it's you we need.
That's where you shine, old pal of mine, because
We need no service station for your feed!

Are Loyalty and Trust worth anything?
I stroke your friendly nose and say, "they are!"
Me for the horse! I'm strong for you, old chum—
But what affection has one for a car?

W.H.C.



MEETING THE PUBLIC.

Last week I had the pleasure of attending the Rangers' Meeting at Thurston Bay.

It was with great regret that I had to leave after the first half day, as I should thoroughly have enjoyed listening to the papers read and the debates thereon. The residents of Thurston Bay were very hospitable, and gave us a royal reception, and I shall have very happy memories of my short visit, and of the men, women and babies I met there.

I do not know of anything more conducive to good fellowship among the members of the Branch than these occasional meetings where ideas are exchanged, and hard blows given and taken in a really sportsmanlike spirit.

Good fellowship and a spirit of friendly rivalry certainly make for efficiency, and I felt proud to belong to an organization where it was evident that every member was 'on his toes' and determined to do his level best.

I should like to pay a tribute to the chef at Thurston Bay for the splendid manner in which he rose to the occasion, and took care of such a large addition to his family. The food and service while I was there were excellent; and from all accounts he excelled himself on the last day, as the boys are still talking about the good time they had!

In one of those informal talks on paper I have had with you through the medium of "Root & Branch", I took up the question of COURTESY in connection with meeting the public, answering requests for information, etc. I should like to follow this a little further, and try to show how it may add to the efficiency of the Branch.

Many requests are made which, for various reasons, cannot be granted. It may be that the Statutes will not allow it; it may be against some of the regulations of the Department; or against the general policy of the Government. A curt refusal may send the requestor away with a grouch, and he will think he has been turned down through pure cussedness. On the other hand, if a minute or two is taken to show the person <u>why</u> the request cannot be granted, if the reason is based on commonsense and justice the party will go away - perhaps sorry that he cannot get what he wanted, but at any rate satisfied that he has not been turned down without a good reason.

It may be that the person to whom the request is made does not know why it cannot be granted; he knows it cannot, but does not know why. In that case he should say, "We cannot do that. I don't know why, but will find out and let you know the next time

I see you, or will send you a letter."

If the request is made to a Ranger, it may seem to him to be a reasonable one, and he should enquire of his Supervisor.

Perhaps the Supervisor does not know, and he enquires of the District Forester, and so on up to the Head Office.

Somewhere there should be a good and sufficient reason why the request cannot be granted. If not, then the regulation or statute or policy which is responsible for the refusal should be changed.

In the meantime, every man to whom the question has been put is being educated, and he gets to know the why and wherefore of the regulation, statute or policy.

In the final analysis, a Branch, Department or Government will be criticised or commended according to the impression made upon the public by the official with whom it comes into direct contact, whether that official be a Forest Ranger or a Minister of the Crown.

Geo. R. Naden.

"COURTESY - Rude or slovenly manners and gruffness of language become very uncomfortable as soon as people associate together. A person is not excusable if he reaches manhood without being able to control his tongue. The need of politeness is is apparent to everyone. Gentleness, refinement and courtesy are characteristics which mark persons who have profited by the influence of good examples and good precepts. Everyone naturally likes to have respect shown to him; a courteous greeting will attract while a scowl will repel. It is no wonder that the bad manners of some men destroy their chances of favour. The golden rule, if followed, will give valuable lessons in politeness.

"The recognised advantages of courtesy have given rise to many rules which society regards as binding. It shows ignorance not to observe the customs of well-bred persons. It is foolish, unsociable, and even barbarous, to disregard or despise them. Respect for age and for those in authority is part of the discipline of patience, gentleness and self-control, which goes to make up true manhood and womanhood."

(Millar's 'Canadian Citizenship.")

Politeness immediately pays the principal back, and one hundred per cent. a day.

THE HAND-LOGGER LICENCE.

From time to time, during the past, there has been voiced more or less severe criticism of the Hand-Logger Licence system in operation on the Coast, authorised under Sec.31 of the present FOREST ACT. The operations of certain hand-loggers on Seymour Inlet in the Spring of 1922 led to an investigation and review of the situation; and the following comments are forwarded (as our first contribution to "ROOT & BRANCH") and put forward as a basis for further discussion.

Hand-logger Licences were first issued (it appears) under the LAND ACT of 1888. The fee was fixed at that time at $10. The licence was general, and gave the right to cut on any vacant Crown land, and no particular area was assigned to the Licensee. The licence was supposed to be personal, but did not specify that hand-logging methods should be used - and it is evident from many old operations along the Coast that donkey engines on floats were used. It is also evident, in many cases, that owing to the scarcity of surveys, none too much care was taken as to the status of the land operated upon, if a good easily-operated show was involved.

In 1906, provision was definitely made prohibiting the use of steam machinery. In 1908 the licence fee was increased to $25, and in 1909 provision was made in the new LAND ACT to issue and regulate Hand-logger Licences, making them personal on definitely-described areas, and prohibiting the use of steam. It is interesting to note that the Forestry Commission of 1910 recommended the discontinuance of this form of Licence.

Early records show that in 1907 as many as 572 Hand-logger Licences were issued, and no doubt an appreciable proportion of the total cut at this time was produced by operations under this form of licence.

The FOREST ACT of 1912 included provision for the continuance of this form of Licence under sec.31, which has been amended a few times since, and there were in good standing some 40 odd Hand-logger licences in the Vancouver district in 1922.

All along the Coast may be found evidence of old hand-logging operations on what must have been fine water-front shows. In the early days, if the trees selected for cutting did not run just to suit him, the hand-logger did not bother. Big, sound fir and cedar were plentiful - why should he! No doubt a large proportion of the cut was wasted in lodged trees, high stumps, etc., etc. The early paradise of the hand-logger on Burrard Inlet, Howe Sound and Jervis Inlet, bears abundant witness to this. However, "them days is gone for ever!" Good shows becoming scarce, the hand-logger moved North. His next stamping ground was Toba Inlet, Bute Inlet and Loughborough Inlet. Now, these are also all but deserted; desirable shows are scarce and many areas have been hand-logged a second and third time. Steam operations have moved in to take the timber behind.

Knight's Inlet, Thompson Sound, Kingcomb Inlet, Sutlej Channel, Tribune Channel, Simoon Sound, and even Drury Inlet, rich in steep timbered hillsides, and once choice hand-logging country, have now only a few remaining representatives of a once flourishing hand-logging community. During and since 1918, efforts by the Department induced many hand-loggers to convert their licences into Hand-logger timber sales, and the majority of the vacant Crown foreshore on these inlets is now held under this new form of licence.

Seymour Inlet and vicinity, then, is the last stronghold of the hand-logger in this district, and ninety per cent. of the hand-logger licences in existence in the Vancouver district are here situated.

In 1918, the report of the Commission of Conservation contained comments on Hand-logger Licences which were most decidedly of a critical nature. It was stated that -

(1) The indiscriminate cutting of convenient shore timber resulted in the injury of many good logging sites.
(2) It was estimated that forty per cent. of the trees cut became lodged and were wasted.
(3) The resultant debris produced a bad fire-hazard at the water's edge, where a fire was most likely to start and gain headway.
(4) It was doubtful if the advantages gained in utilization, or the furnishing of a livelihood to the members of the nomadic group who follow this occupation, was commensurate with the resultant damage.

The report recommended that, as the usefulness of the Hand-logging system had passed, it should be discontinued.

Our observations do not uphold these criticisms of this system of logging. It may be that, on the original sites on the lower Coast, where the predominant species was Fir, this view held good in certain cases. But we find now that the selective system of cutting employed by the hand-logger is in reality the ideal system for the harvesting of old growth timber on the steep hillsides where these licences exist. As compared to the slashing of timber on steep rocky side-hills by donkeys on floats, or sitting on the beach, the hand-logging methods are to be preferred from every standpoint. The hand-logger takes only the biggest and best old-growth timber. The stand in most cases is improved by the thinning, with subsequent development of the co-dominant and suppressed trees. The method of logging inflicts the minimum of damage to the volunteer growth of all ages, and abundant seed trees are left to seed up the openings.

The hand-logger is not fixed as to camp, and as soon as the individual trees are cut he moves, removing the danger from fire. And from our observation, it is only a very exceptional case where the accumulation of slash could be considered to increase the fire risk over and above what naturally exists.

In our opinion, hand-logging methods are highly desirable on the sites at present being operated in this way. They tend to preserve sufficient forest cover on the steep slopes and thin soils to prevent errosion and deterioration of the site. A utilization feature which is of considerable importance is that the areas hand-logged for large Cedar and Fir give good returns at the present; and the Hemlock and Balsam is left undamaged, to be taken out at a later date when market conditions will in all probability be more favourable.

However, the administration and control of Hand-logging operations present certain difficulties. Operations are seasonal and very irregular, depending on the weather, the tide, the time of year, and the state of the hand-logger's finances. Inspection is difficult, and production reports rarely check with amounts actually cut, as usually many more logs are scaled than were cut within the prescribed limits of the licence. As the operators are frequently absent when inspections take place, control is difficult.

The cost of administration of Hand-logger Licences is estimated as follows -

Cost of clearance (Labour, stationery, postage, &c).....	$ 2.00
Field examination (Ranger and boat, for one day).....	10.00
Issuing licence, (Labour, stationery, postage, &c).....	3.00
Two field inspections (Ranger and boat, one day).....	10.00
	$25.00

Cost of administration, therefore, is just about covered by the Licence Fee of $25.00. On the basis of revenue from Licence fees, divided by total scale from hand-logging licences, the stumpage received is .13¢ per M.feet B.M.

In 1921, 9,448,349 feet B.M. were cut from 49 Hand-logger Licences, or an average of approximately 190,000 feet B.M. per licence. Seventy-two per cent. of this was Cedar. In 1922, from January to December, 9,548,787 feet B.M. were cut from 44 Hand-logger licences, or approximately 217,000 feet B.M. per licence. Of this, seventy-eight per cent. was Cedar.

---------- L. R. ANDREWS.

(This article is the first of a series. Discussion on the subject of Hand-logger Licences will be resumed by Major Andrews in our next number. Ed.itor.)

In view of the fact that the District Foresters are to be in Victoria next week for their annual conference, our next number (which was to have been a special CONSERVATION number) will be devoted largely to the Conference. The CONSERVATION number will appear later, which will afford our readers a greater margin of time in which to prepare their contributions.

CONSERVATION.

If, as indicated in my last article, there is to be a rapid increase in the demands made on British Columbia Forests, until we are required - at the end of 75 or 100 years - to supply some 3½ billion cubic feet (approximately 10 times the quantity of wood used from B.C.Forests today), our present mature stand, large as it is, will fall far short of meeting the requirements until a new crop is available. It becomes necessary, therefore, to seriously consider what safeguards are needed to protect our future without seriously hampering our present development.

The answer seems obvious - "Conservation of our Present Supply."

Forest Conservation is a term of which we have heard much; a term construed to mean anything from the regulation of unnecessary waste in woods operation, to the absolute restriction of cutting. That is to say, from the preservation of timber for immediate future needs, to attempts of impractical theorists to restrict present development for the sake of future needs which may never arise.

By CONSERVATION we mean, not curtailment but the cutting out of waste by legitimate use; the putting of every bit of raw product to the highest possible purpose. Here I wish to state that conservation does not require the salvaging of the raw product at a cost at which the market refuses to absorb it. True conservation, however, does demand that we should try to find means for utilization of all our raw materials, and the segregating and placing of each class to its highest use, and the conserving of the balance for future needs.

We are today passing through the destructive stage of development. Only the best is taken. Cheap stumpage and competition from other regions forces our material on the market when the buyer need select only the best, no matter what the purpose. Possibly not more than one third of the wood content reaches the consumer. Manufacturing is done on low margins, and for quantity production rather than for higher specialised products. We are using materials which cannot be replaced. Take a piece of paper, if you will, and figure at current rates the cost of holding and protecting timber-land for the three hundred years necessary for production of our Douglas Fir and Cedar stands. The results will, at least, be surprising.

Moreover, with the growing demand, we will not be able to wait, but must cut our future crops on a rotation to secure the greatest possible production rather than the highest quality.

The old mature trees now forming our cut will, when this crop is harvested, be like the virgin white pine of the East - gone for ever!

While there is much in our present methods that is not compatible with conservation, yet the process of utilization is so intimately bound up with our economic system that sudden or drastic changes cannot be made without disorganizing the whole industry, and at the same time defeating the ends we wish to gain.

Work is steadily going on on this phase of the Forest Problem. "The Forest Products Laboratory" is gaining, and making available day by day, a more intimate knowledge of the uses of wood. The Trade Extension work carried on by the Timber Industries Council, and the West Coast Lumber Association, as well as by the Forest Branch is educating not only the buyer in the selection of wood to meet his special requirements, but the manufacturer as well in Manufacturing for that market. The logger has devised many schemes for cheapening production - although it must be observed that these are not always in harmony with the best silvicultural practice. However, these but form the weak beginnings in the solution of the problem "How Large a Proportion of the Actual Wood Crop can We Put Across to the Consumer?".

In conclusion, may I suggest that "Minimum Requirements" places upon us the obligation of speeding, as far as possible, a solution of that problem.

---------- P.Z. Caverhill.

FORD's FOREST - "The correspondent who supplied the figures of the necessary materials for the production of Ford cars included everything, apparently, from oil cloth to rubber tires, and from tin to motors, but made no mention of wood. In a Forestry publication, this omission would seem to indicate that the Forest played little part in Ford's plans.

"This, however, is far from fact, since the average requirement per car is given at about 250 board feet. Ford's annual requirements in lumber is in excess of 200 million feet, or about equal to the entire production of our mountain mills. Far from considering his wood requirements of minor import (to be replaced by substitutes when the time comes) Ford has purchased a forest of some 400,000 acres, which he is managing on Forestry principles, to ensure not only the present but future generations the wood units for their Ford cars.

"A very interesting article on Ford's Forest will be found in AMERICAN FORESTRY, from the pen of Ovid M. Butler."

P.Z.C.

(We thank our correspondent for calling our attention to this important omission. Elsewhere in this number will be found some extracts from the article to which he refers.)

DO YOU LIKE YOUR JOB ?

I often wonder what it is about Forestry work that makes it appear so attractive to many people. Not long ago, I met a professional man, earning probably $10,000 a year. In the course of our conversation, he found out that I was engaged in Forestry. "Say, that's what I want my son to do," he said. "Forestry must be mightyinteresting work, and I believe there is a great future for it." I agreed with him as to the interesting part, and as to the future possibilities, and then turned to point out to him some of the hardships and difficulties - the costly years of University training, the long years of apprenticeship necessary before one could get anywhere near the top, and the relatively limited opportunities all along the line. Whether or not I convinced him that his son would better be a lawyer or a doctor, or run a corner grocery than be a forester I do not know; but the point is that many people look upon a forester's as an ideal profession with "Nothing to do but walk around in the cool, green woods all day, and camp comfortably by the bubbling brook at night!"

And this brings up the question - Why do we, who know both sides of the game, the unpleasant as well as the pleasant features of it, still (as a rule) like our work and find it interesting? For I believe that, even if we are sometimes discouraged when we think of the drawbacks pictured above, for the most part we really do enjoy our work; and when we come to consider what some other jobs are like we wouldn't trade with the other fellow on any consideration.

Without going into details, I believe we like our work because of its variety, its opportunity for initiative - a chance to show concrete results for the expenditure of effort. You, Mr. Forest Ranger, for example, with your variety of jobs from examining a pre-emption to exploring an (as yet) unnamed valley, compare your job to one in (say) Ford's ultra-modern factory, screwing grease cups on Ford cars! You have a chance to show something for your work, something which will proclaim your ability, originality and enthusiasm, while he endures a dreary monotony all day the year around - and what will one hundred thousand grease cups show!

Possibly, in the older days, it was different; each craftsman had reason to be proud of the product of his brain and hands. To my mind, this chance to show results, as exemplified in Forestry work, is the principal factor that makes the work appeal to so many of us. To what extent advantage is taken of the opportunities that exist depends, of course, very largely on the individual. There may be other reasons; on second thoughts, I suppose there areas many reasons, probably, as there are individuals in the Service! Supposing, now, the rest of you set forth what appear to you to be the outstanding advantages and disadvantages of Forestry work, and send them to the Editor? I am sure they would be both readable and interesting.

R.C. St.Clair.

RANGER MEETING POINTS.

Lately there has been quite a reform wave sweeping through the ranks of large employers of labour, which has led to the representation of the workers on the board of management. It is looked upon as something new, something progressive, a big advance in the emancipation of what our Socialistic friends are pleased to term the "wage slave." But it seems to me that this Forest Branch of ours has been, perhaps all unwittingly, 'way ahead of the procession, for we have had for some years past our Ranger Meetings, where we all met on equal ground.

From the Rangers' Meetings there have been evolved some new ideas, some ways of strengthening our position as a Forest Service, some cutting out of red tape, and some suggestions for new legislation. The fact that troubles can be discussed, that mistakes can be aired, is the first big step forward towards their correction.

There has been a great difficulty in getting field men to put their ideas on paper. A strking instance of this is the fact that our Editor makes a constant plaint that the men in the field have not yet become contributors to their own magazine. Yet, when I get out into the field, I can invariably gather a few really worth-while ideas and stories for "ROOT & BRANCH" in the course of a few minutes' personal chat. At Ranger Meetings, the old adage is upset, for there "the tongue is mightier than the printed word."

At the meeting at Thurston Bay which the Coast Rangers attended, there was a lively discussion on every phase of the work we do; and in view of the fact that the Southern Interior and the Northern Interior are also to hold meetings shortly, I am not going to discuss or argue the points brought up, but am just going to mention some of them in case someone in the other Districts has other ideas, theoretical or practical, about these same points.

On one point, at least, we are all in complete accord, and that is that Forest Protection propaganda is not carried quite far enough. Mr. E.T.Allen, a driving force in Pacific Coast Protection matters for many years, reiterated what is perhaps his pet statement at a Canadian Forestry Association meeting lately, to the effect that if he could spend one million dollars a year on Forest Protection advertising, he would eat the fires that started following such a campaign!

I entertain far too friendly a feeling towards Mr.Allen to wish to see this statement carried out in its entirety, but I do know that the effect of such an advertising campaign would give far-reaching results. We <u>know</u> this, but can we arouse public opinion sufficiently to secure that million? In B.C. our Forest Protection income is approximately $475,000; it costs us $325,000 to keep up our equipment, pay our staff, carry on such advertising as we can afford, etc., which leaves us a ridiculously small

balance for fire-fighting costs, which this year were approximately $400,000. This money had to be found, through additional taxation.

Of course, the argument is that if we spent (say) $40,000 more on advertising, our fire-fighting bill would be much less in proportion, with a consequent decrease in loss of timber and other property. Probably true, but ----------(it's no use; I can't argue against a theory I fully believe in, but there are existing conditions which cause us to model our plans not quite so near the heart's desire.)

Many of the suggestions brought forward at the meeting have already been acted on, and provision made for their enforcement by recent legislation.

By-the-way, I would commend to each ranger an hour or so's study of the FOREST ACT Amendments; they are mostly based on what might be termed "mute" recommendations from the field - i.e. statements of conditions as they existed, which should be remedied. This we have tried to do, as a study of the Amendments will show.

There has always been a cry for the employment of a larger field staff. Well, just look at the fiscal statement above, figure out the cost of lightning fires and fires which are caused by the inherent risk of logging operations, land-clearing, hang-overs from brush-burning, etc., and see if all this will fit together, keeping in mind our constant expenditure of $325,000 per annum. How much is there left for the employment of a larger field staff?

One paper was read on 'Intensive Organization of Forest Protection Facilities.' When this ranger took over his district in 1917, he had sufficient equipment for about ten men. Since then, his equipment has been increased by three pump units complete, a number of 5-gallon extinguishers, and sufficient tools to equip 100 men, while his staff has increased by two Assistant Rangers, three patrolmen, and a number of Hon. Fire Wardens. He was the whole staff at first! This is Progress!

An instance of what is meant by 'Intensive Organization' was unfolded by relating the history of one particular fire. This was first observed at an elevation of 2,000 feet, at 4.p.m. on a Sunday. An Hon. Fire Warden saw it, consulted his chart, 'phoned his nearest foreman to have his crew gathered at once. After this had been done, he 'phoned the Ranger and Assistant Ranger, gave particulars and stated that he had arranged for them to pick up the crew and to bring the necessary equipment. The crew was picked up en route to the fire, which was fought all night. In the meantime, a 'phone message to an operator called out a day crew, which was on the job at 4.a.m. next morning.

This fire broke out in a particularly dangerous area, and was brought under control and extinguished with the least possible

loss of time. The big points in the history of this fire to my mind are, first, the charting of the suppression forces, so one knows instantly where to get a crew; second, the education of the crew to the necessity of responding to a call at once, the co-operation so freely given by this logging operator (showing how far our education has borne fruit); and thirdly, the fact that the least possible time elapsed between the time the fire was first noted and action taken. The latter point is all-important, and is the difference between success and failure. This is Progress indeed !

The paper on the 'Science of Fire Fighting' boiled down to the fact that, after all, it is "the man with the hoe" on whom the ultimate results depend. What we have done so far is to speed up the chances of getting the results we want. This calls for Organization and Education.

Papers were read on 'Forest Management', 'Classification of Land', 'Timber Administration', and 'Appraisal of Stumpage Values', 'The Objects of Logging Inspection', 'The Fire Season of 1922 and its Lessons', 'Organization of Management Work', and 'Compilation of Records'. All these subjects were well handled, showing that considerable time and thought had been devoted to the subjects assigned, and resulted in keen debates on the subject matter brought out, in which neither praise nor criticism was spared.

All this shows that if these meetings are attended with the spirit which animated the Department when it granted the authority to hold them, much benefit will be derived, not only by the field- but by the executive-staff as well. We need the interchange of ideas, and we need to get each other's view-points. And that's what Ranger Meetings are for.

---------- C.S. Cowan.

(The foregoing only confirms what we have always maintained, namely, that the staff are not inarticulate in regard to their ideas; that they had those ideas has never been questioned, but it was felt that possibly the field men were inclined to be reluctant to express them. As Mr.Cowan points out, Ranger Meetings were instituted to bring out these ideas, and to subject them to the keen test of criticism. The same idea lies behind "ROOT & BRANCH", with this difference, that "R.& B" affords more frequent opportunity.

We have complained of the meagre response to our appeals for contributions from the field; but that is not entirely true. We have received many contributions from the field, but almost without exception they take the form of amusing anecdotes. Contributions of that sort are always acceptable, but what we really want are the practical views of the field staff and suggestions as to where and how improvements might be effected. In short, that they should take a more solid interest in this publication, while continuing (of course) to contribute a little agreeable levity. Ed.)

MANAGEMENT NOTES.

The first real start on a silvicultural marking plan is being made in the various districts. Three yellow pine timber sales in the Coldwater Valley near Merritt are being marked for cutting by a crew composed of Melrose and Alexander from Victoria, Ranger Little and Assistant Ranger Tyner of Merritt. The sales carry a total stand of about 15,000 M.B.M., of which about ninety per cent. is yellow pine.

The bark beetles have been working for some time in this timber and have at present accounted for five per cent. of the stand; a large part of the marking will be for the purpose of securing control of the infestation. Trees to be marked will include all insect-infested trees and all live trees of merchantable size and contents, with the exception of those to be left for seed purposes. Advance reproduction will be considered in providing for a future stand, but it is entirely likely that the unmerchantable live trees to be left will be sufficient to guarantee a future stand, where fire may destroy the advance reproduction. Where such trees will have to be left, it will not be necessary to leave merchantable trees for seeding.

An attempt will be made to mark as large a portion as possible of the Douglas fir to discourage reproduction of that species. The dry interior climate is not conducive to good growth of fir, and most of this species, when of merchantable size, is very shaky and unfit for lumber. It takes up valuable space in the yellow pine type, and should be removed. Some attention may even be given to girdling Douglas fir that cannot be cut.

The presence of bark beetles in this timber make it necessary to provide special slash disposal and removal conditions. Slash will be piled free of reproduction and live trees, concurrently with the operation, and will be burned in the spring when the District Forester directs. Logs cut prior to April 1st. in any year must be removed to a distance of at least half a mile from any pine timber before that date; this is to prevent the insects that usually infest the logs from emerging and flying to surrounding timber. Logs cut subsequently, and prior to July 15th, are to be removed immediately to prevent their becoming a breeding ground for insects. Any infestation of logs after July 15th. will, be taken care of by their removal before emergence the next Spring.

As this is our first job of marking for silvicultural purposes, considerable interest attaches to the work. On account of its being a first attempt, the marking will be conservative. Once we get the idea over and develope a technique, we can enlarge the work, tighten up the conditions, and be well on the way to some silviculture.

Another point that makes it possible to start on yellow pine is that we are in possession of the valuable figures compiled by Alexander last summer. His volume yield and reproduction data

are now in pretty good shape. He has arrived at some very definite conclusions, from his study of the species, as to the way in which yellow pine stands should be handled, and now is attempting to put them into practice. The results will be watched with a great deal of interest.

... ...

C.D.Orchard, who is to handle all Head Office reconnaissance work, has been busy lining up men and material for the 1923 season. At present we are contemplating three intensive parties, and one on general reconnaissance. One of the three will probably work on a large body of pulp timber on the Horsefly river near Quesnel, another on several pulp applications on the Queen Charlotte Islands, and a third on the fume-killed timber along the Portland Canal and Alice Arm near ANYOX.

The general reconnaissance of the timber resources of the P.G.E. region will take a couple of men and outfit all season. This job should prove very interesting to the men on the party, as they will cover a large part of the Cariboo Forest District, and will even get over on to the Coast side of the mountains.

Orchard reports that there may be a shortage of experienced Cruisers this year, as so many parties will need a big personnel. However, with careful planning and the right kind of supervision of any green men employed, results should be satisfactory.

As soon as snow conditions are right in the Cariboo district Orchard will make a rough snow-shoe reconnaissance of the area to be cruised on the Horsefly in order to line up the order of the work, camps, etc., to avoid delay when the actual work starts. It is likely that Marling will accompany him on this trip.

Later, Orchard will visit the Queen Charlottes for the same purpose. The Portland Canal area has already been covered.

... ...

Forest Entomologist Ralph Hopping has sent in his report on the work in the Coldwater Valley. This insect control work has been carried on for the past three years and, according to Mr.Hopping's figures, has been very successful. Where the first year's work has been re-cleaned, the following year saw practically all the infestation removed. Where areas have been worked but not re-cleaned, a re-infestation of about fifteen per cent. has been found. Where areas have not been worked, the increase has been as high as three hundred per cent.

An interesting development has been the appearance of another insect of unpronounceable name - and, in the absence of Mr. Hopping's report, which I have not by me at the moment, unspellable! - that works on the limbs. Up to last year, the damage from its operations never assumed very large proportions, but for some unknown reason the past season saw such a great increase in the Voght Valley area that all the limbs on the yellow pine over large areas have been killed. The trees will die, naturally.

Work for the coming season is now being planned. It will be pursued by five parties at Pike Mountain, Voght Valley, Midday Valley and Coutlee Plateau in the Vernon District, and in the White pine and Douglas fir of the Adams river Valley in the Kamloops district. The latter will be mainly a re-cleaning of areas already worked.

... ...

We are glad to see that L.S.Hope, at Nelson, has found time and opportunity to secure some very valuable logging cost data. The sheets have been sent in and will be worked up very soon, when the results will be distributed to all districts and should be checked with local conditions.

Stevens has been working along similar lines in the CCranbrook district and Marling at Kamloops. Stevens has sent in a considerable number of forms which include time studies of sawing, hauling and loading. When worked up, they will be a valuable record of actual costs on representative operations.

In using the forms supplied for logging cost work, it should be borne in mind that the time on each operation, be it falling and bucking a tie or skidding a log, is the actual time between the start on one tree and the start on the next tree or trip. The full time elapsed is what goes in the "Time on Tree" or "Trip Time" column. If there are delays or lost time, these should be noted in the space for "Remarks". The total of the Time Columns should equal the total time from the picking up of tools to the laying of them down - in other words, the total effective time.

We have had no response yet to our suggestions that Rangers could use these forms when on inspection trips. Maybe some of you have done so, but have not sent in your figures? Let us have them as soon as you can, so that we can work them up before the heft of the summer season gets us.

The Chief Forester came in the other day with some notes he had taken on "Reproduction Conditions" while on inspection trips some years ago. This was the first response to the article on "Note-taking" in "ROOT & BRANCH". The Chief has set the example that we all might follow. Take the notes - work them up or not, but take them - use them, and let the rest of us benefit by your sending them in.

---------- G.P. Melrose.

As intimated in our last issue, Ranger G.L. Davies is seriously ill at his home in Port Alberni. We have just been advised that he has been operated upon, that the operation has apparently been entirely successful, and that Ranger Davies' complete recovery is now only a matter of time.

We hope soon to have the pleasure of welcoming him back to a resumption of his duties.

FORD'S FOREST.

At Iron Mountain, Mich., Mr. Ford has built one of the most modern sawmills in the world. Forest and mill are one hundred miles apart, more or less. Up in the woods, Ford tractors are building logging roads in the timber, and when the snow flies they will be busy all day from daylight to dusk hauling logs over iced roads to a railroad which will transport them to the Iron Mountain Mill. There they will be ripped and re-sawn into boards which will pass on automatic conveyors out of the mill direct to the lumber piles in the yard, and then to the dry kilns for final seasoning.

At the rear of these dry kilns, great doors open into a body plant of steel and concrete construction, 420 ft. long by 120 ft. wide, and the lumber, now manufactured from logs purchased from contractors, moves on continuous tracks to a score or more of different machines which convert it into a score or more of different wooden automobile parts. These in turn are shipped to assembling plants back in Detroit, and in the course of a few weeks are part and parcel of the finished Ford car to be seen on every highway in every state in the whole United States..... It requires on the average 250 feet B.M. of lumber for every car Ford manufactures. That is a pretty good content for the average hardwood tree, and when you consider that Ford is making around a million cars a year, a forest of a million trees a year begins to pass before your eyes! A sizable forest, indeed! Twentyfive thousand acres of timber to Ford the present generation from one year's end to another! That will give some clue to why Mr. Ford has bought a big forest.

"But is Henry Ford actually practising Forestry?" Among foresters and lumbermen - and a lot of other people too, for that matter - this question has been asked many times since announcement of Ford's purchase was made. Some of the lumbermen were inclined to shake their heads and smile wisely. Most of the foresters assumed a hopeful attitude and tried not to be skeptical; they have been fooled before on newspaper reports. But no one seemed to know exactly how Henry Ford was setting out to handle his newly acquired forest, so I went to Iron Mountain to see for myself. And I found that in a very serious-minded way he is harvesting his mature crop of trees, leaving his young fast-growing trees for an oncoming crop and ridding this young forest of the hazards of fire by cleaning it of all brush resulting from the logging. If that isn't forestry, what is?

"Mr. Ford is simply looking ahead. His present needs call for more than two hundred million feet annually; he may need more. He hasn't taken up lumbering andtimber growing as a hobby. It is strictly a business proposition. He is simply making permanent provision for his future lumber and wood requirements."

(Ovid M.Butler in 'American Forestry')

(We shall quote further extracts from this interesting article in our CONSERVATION number. Ed.)

INTERIOR SCALING.

The importance of scaling in the Interior is something, it seems to me, that is apt to be overlooked by the Ranger. As the B.C. rule is the basis on which all transactions in timber are based, whether it be buying, selling, cruising, estimation of trespass or fire damage, etc., the importance of being familiar with the rule is obvious.

I am afraid that many of the Rangers, as soon as they have passed their examination and secured their scaler's licence, put their rule away in some corner and forget that they were ever in possession of such an article!

The Ranger should, to be efficient (and we are all striving towards that end), make himself thoroughly familiar with his rule and, whenever he finds an opportunity, he should use it.

Generally speaking, the men employed in the mills or camps in his district as scalers are qualified men, and are being checked up at intervals by the check scaler to make sure they are; so that the Ranger can always try his hand with the scaler in a mill or camp, and be sure of a fairly good comparison.

During the fire season, of course there is no opportunity; but before the season and after it, I think a ranger might well spend a little time to great advantage in this way.

Some time could also be put in with the check scaler as opportunity offers. He is always more than pleased to discuss scaling matters, both from the cruising and the mill end of the question.

There are many advantages in being able to scale well and confidently, and only by practice does a man attain confidence in his ability to do this. When he measures a quantity of logs, he knows that they are measured correctly, and does not wonder how near, or how far off, he comes to being right.

I would ask the Rangers in the Interior - Do they consider themselves <u>good</u> scalers ? Or, in the event of a dispute over some logs that they have scaled, how many of them have confidence enough in themselves to know that a check scale will prove their figures ?

Practice in scaling is also a good training for the eye in estimating relative sizes of logs in trees or cut, and I suggest to every Ranger in the interior, who is not an experienced scaler, that he should take advantage of every opportunity to make himself more familiar with the stick.

J.A. MILROY,
(Asst. Supervisor of Scaling.)

THE FORUM

"It is noted in the December issue of 'ROOT & BRANCH'" writes T.A.Clarke (Prince Rupert) "that the intention is to invite special articles from all members of the field staff instead of publishing such voluntary efforts that may from time to time drift in. (Mr. Clarke has misunderstood us in regard to the 'voluntary efforts'. - Ed.) This new departure, while an excellent idea has, however, to my mind its limitations; not as regards the willingness of the men who are called upon to contribute, but that the scope afforded them within the pages of a magazine will not, in all cases, be sufficient for them to treat their subject with the intensity of detail which they feel they might like in order to do justice to themselves and to the their subject. Might I suggest that, in order to allow the writer of an article to treat his subject fully (to which in some cases he may have devoted months of field study), a series of printed bulletins be inaugurated which could be distributed 'broadcast' to the staff in the field. We know that the U.S. Forest Service publishes a bulletin periodically, containing the most recent developments in study and research that its members have conducted within the National Forests; information that must be of vital interest to other field men in the service, who recognize in these bulletins the solution of many problems which they have encountered, but which they themselves have not had the time or opportunity to fully investigate.

"Within the past year, we have all been supplied with a U.S. Forest Service bulletin on 'Stumpage Appraisals' which with minor alterations has been found applicable to conditions in B.C. Accordingly, a number of stumpage appraisals on pending Timber sales have been worked up by members of our own staff in several of the districts, and forwarded to Headquarters for consideration and judgment. We have not all had the chance as yet to do this, but why cannot we all be supplied with the information obtained by our fellow workers from time to time? All right! "B.C. Lands Dept. Forest Branch Bulletin No.1. - Results of Stumpage Appraisals Studies on 10 Timber Sale Applications." (on Vancouver Island, on the Northern Coast, or in the Southern Interior, as the case may be.)

"I am not going to enlarge upon the many benefits which I think would result from these bulletins published at intervals; they must be quite apparent. It may be claimed that information of this kind is always embodied in the Annual Report. True; it is, but not in the detail which would be possible in a bulletin, where the writer would be free to express himself and explain his work fully."

(A study of Mr. Melrose's more recent articles would indicate that something along the lines suggested above is actuall being contemplated. In regard to voluntary contributions, in case any more of our readers are under the same misapprehension, we would like to reiterate and emphasise that there is not the smallest intention of shutting these out. Let us have the voluntary contributions, and lots of 'em. Ed.)

And here are Ranger D. McDougall's views in regard to the Motor Cycle as a means of transportation. Ranger McDougall, we think, sums up the situation very concisely and quite conclusively.

"The most valuable experience which I have had with the motor cycle was on despatch work in France, where fast contact work between the various headquarters was necessary to verify telephone and telegraph communication.

"There you have it in a nut-shell, to my mind; and during a heavy fire season in a district where the roads are good, a good man on a motor-cycle would prove a valuable asset in supervising the work on different fires. An average of 30 m.p.h. on average roads is nothing to a motor-cycle, but to attempt to drive a Ford at that pace and maintain it, would certainly hasten Lizzie to her grave! "Why, that's nothing!" I can hear some of the Ford speed artists saying - but that's all very well for the driver, maybe, but not for the car.

"You are quite right when you say that rough and slippery roads will make a wreck of a man on a motor cycle. There is nothing quite so nerve-wracking as to try to keep one right side up in dirty weather.

"I am inclined to agree with Montgomery in favoring the light-weight machine for the kind of work he outlined, for unless a man was a good rider he would soon come to grief on the heavy weight, especially on trail work. A machine around the 200 lb. mark, with lots of power and three speeds (the latter a necessity if any trick riding is to be done.) A patrolman in a thickly-settled district, where the roads are fair, and who previously used a bicycle or horse, would find the motor cycle handy for maintaining a better patrol, and it would help him, too, in fire-permit work, as he could cover his beat oftener.

"If in doubt, buy a Ford, which is an all-the-year round vehicle, and has four perfectly good wheels under it instead of only two!"

ASKING FOR BIDS - Walter Harris, an employing printer of Fort Worth, Texas, got slightly peeved at a letter from a Doctor who wanted bids on several thousand letterheads, different sizes, different grades of paper, and different colors, and wanted the printing form kept standing. So Walter took his typewriter in hand, and answered something in this manner-

"Am in the market for bids on one operation for appendicitis - one, two, and five-inch incisions, with and without nurse. If appendix is found to be sound, want bids to include putting same back and cancelling order. If removed, successful bidder is expected to hold incision open for sixty days, as I expect to be in the market for an operation on gall-stones at that time, and want to save cost of cutting."

(Kansas City Post.)

EDITORIAL.

"Which would you rather be - Brainy or Beautiful?" we were asked the other day. We ignored the obvious inference (much to the disappointment of our interlocutor) and said, without any hesitation whatever, that if we were ever called upon to choose, we would prefer to be Beautiful; and this not for aesthetic but for intensely practical reasons.

Were we sufficiently Brainy, we might become a Forester, an Engineer, a Doctor, a Corporation Lawyer, or adopt any one of several other moderately lucrative professions, and probably would do fairly well for ourselves. That is to say, in the course of time, as we became established and recognised, we might hope by and by to find ourselves in a position of financial security.

But, on the oppressive other hand, were we sufficiently Beautiful, there are no heights of affluence that we might not hope to reach almost immediately. No glistening peaks would be too remote, were we a 'beaut'. Take, for example, those handsome morons of the 'silver screen'. Money, to those people, has become almost demonetized. They do not know, or have forgotten, that the humble Dollar Bill has any purchasing power; they think in thousands!

Brains! Hell!!

"But they must have some grey matter," you say. Why must they? In the spoken drama, yes. On the screen, no! "Come on, you!" howls the Director. "In yuh get! You'll get wet? Sure, but we can't double in this, the public's gettin' wise to it. In yuh go! Now then, yuh got to rescue her. RRescue her! RESCUE! H--l, whadda yuh think I sent yuh in for! That's it. Register emotion. Emotion! E-m-o-t-i-o-n!! Wow! Aw, cut that, Abe. Now, you, listen to me. I said EMOTION. Get that? Try it again. That's better. All right, Abe, let's go. Action! Camera!!....." and so on and so on.

Our newspaper tells us that Randolph Vavaseur of the Flimflam Corporation has signed a contract for $1,500,000. We will suppose that the "1" was a printer's error, or a press-agent's whimsey; that still leaves Randy with $500,000 of the best.

Of course, a Forester might have both Brains and Beauty. Sure, he might. There's no LAW against it.

AH-HA! NOW WE KNOW!! - Its mere proximity alone would hardly suffice to explain the popularity enjoyed by the University of Washington among the young bloods of the service. But the King's Printer has handed us the following newspaper cutting -

"Because a newspaper published a photo of Miss Julia in running trunks like the men wear, she was barred from athletic contests by the University of Washington. Say, Julia, I was an athlete once (for a very brief while) and I learnt that the secret of athletic success, before the event, was - never to show all you've got!"

PERSONAL PARS

Frank Montgomery, late Clerk at Hazelton, has resigned so that he may assist his father in the management of their farm. We are sorry to lose him, but wish him every success in his new 'field'.

On the occasion of the Ranger Meeting at Thurston Bay last week, the good wishes of the assembly were radio'd to Rangers Davies (Port Alberni) and O'Grady (Vancouver). Appreciative replies were received within an hour.

District Forester Moore (Cranbrook) and Ranger G.B.Watson were comrades in misfortune when their car skidded and went over a bridge in the neighbourhood of Six Mile Creek. Both were badly bruised, but Ranger Watson apparently sustained the greater injuries, and will be incapacitated for about three weeks.

Supervisor T. H. Wilkinson (Vancouver) is expected here at an early date to take up the position vacated by Mr. Brown, late of the "Operation" Office.

On January 6th. a son and heir was born to Supervisor and Mrs Brewer (Prince George). We wish the little fellow the best of luck. We have it on good authority that Brewer, who normally is a very cool and deliberate person, actually became somewhat enthused over this great event!

Mr. J.M. Gibson has taken over his duties at Prince George and Mr. Bonney left there on February 1st. to relieve Mr. Manning at Prince Rupert. "After surviving the throes of crating and packing some forty parcels of furniture, personal gear and what-nots," writes Mr. Bonney, "I have come to the conclusion that the trials of Hades very probably include an endless round of transfers and removals!"

("I really haven't had the time" is the reason most frequently advanced for failure to contribute even an occasional item to 'ROOT & BRANCH'. It will be seen that Mr. Bonney, in spite of his domestic upheaval, still contrived to spare us a moment or two.)

The engagement is announced of Ranger H.Oldham, Penticton, (Vernon district), to Miss Marjorie Goodman of Osoyoos, formerly of London (England). Hearty congratulations, and best wishes.

We welcome to our midst Alexander Chisholm, who succeeds C.G. Morgan as Clerk at Williams Lake.

The office staff at Prince Rupert are now snugly ensconced in their quarters in the new Court House. We hear glowing reports in regard to the new building, which from all accounts is a credit to all who had a hand in its construction.

Supervisor Flumerfelt (Nanaimo) is a visitor to our fair city, and unless weather conditions moderate he is likely to be our guest for some time.

At present we are snowed up. Our transportation facilities have ceased to function, and our schools are closed. The "Wheels of Progress" have ceased to revolve for the time being, and more than one lordly 'twin-six' has suffered the indignity of being towed home by a team.

"NOW IS THE TIME TO BURN YOUR SLASH!!!"

Getting out "ROOT & BRANCH" is getting to be quite a chore. Yes, sir! Take that last number, fr'instance. In this there were 32 pages, which for 230 copies, gives a total of 7,360 sheets. That is to say -

We cut, put on and took off, stencils 32
We cranked the handle of the mimeograph, times 14,720
We inked the cylinder of the darn thing, times 32
We handled each individual dad-blaimed sheet of the 7,360, in putting it together for the binders; and
We walked around and around the ***!!** Table on which the sheets were arranged (each one in its separate pile) 230 times, or a total of 1-1/4 miles.

We could go on indefinitely, showing how the sheets used if placed end to end (with a sufficient interval between) would reach from here to the Pyramids; and how the ink used, if properly diluted and flavoured, would make grape-juice for the entire American Navy; but we have said enough to indicate that it's no cinch, especially when it has to be squeezed into the last few days of the journalistic month. So, please send us your contributions EARLY, and give us a fighting chance!

Seriously though, the statistics given above will serve to show that getting out "ROOT & BRANCH" involves a considerable amount of work. If the paper accomplishes its object, the work is well worth while; but it cannot succeed in this without the whole-hearted support of the field staff. If that is withheld, the paper is doomed to failure - and nobody wants to be associated with a failure. Think it over!

"To the Editur,
Root and Branch,
Victoria, B. C.

"Dear sor; I thank you for your flatterin letter axing me to give you an account of my expayriance wid me car. It must be that the fame of that car has tnravelled far an wide, seein as how a short time back I recaved a complimintry lether from my District Forester statin that my car was the most ixpinsiv Lizzie in the whole damn Forest Branch. I neednt tell you, sor, how proud I wasto be paid that complimint. WWin comin from wan of me thrips I overtuk a farmer and offered nim a lift. Afther we had thravelled a bit he raymarked "that car av yours makes an awful rattle." "That denotes strinth" ses I, and with that I giv her a little drop more av the oil av joy, jist to make an imprission on him. "An what kind av a car d'ye call her?" ses he. "Shes a runabout" ses I. "An phat's that?" ses he. "Och, she runs about a block" ses I, "an thin stops for a bite av grass from the roadside" ses I. "How is she bred?" ses he. "Shes by Tomatocantulope out av Wheelbarrow" ses I. "An how long have ye had her?" ses he. "Och, I've had her a couple o months" ses I. "she wuz sint over from Vernon for me to be broke up - I mane, broke in - an faith I dont know who's to get her when she's properly broke, altho I hear tell that Its betwane the Hon. John, the Minister av Lands, and the Chife Forester; an I'm tellin you tis the proud man he'll be whoiver gits her!" "Is she a stayer?" ses he. "She is" ses I, an I thought of the four damn hours she stayed on the road before I cud even get a kick out av her. When we kem to the bottom av a stape hill I stopt her an got out, slammed the door twice, got in again and antarted her up. "Whut did ye do that for?" ses me frind. "Ssssh, dont talk too loud" ses I "or she'll hear ye" So I up an whispered in his ear "She thinks that two passengers got off of her and she'll pull the better for it." "Yer the most inganious man I ivir met" ses he, an me bosom swelled with pride. "Do ye have much machinery in the Forest Branch" ses he. "We have, an wonderful machinery it is" ses I. "An wan of thim is called the Wondher Pump." "That's a quare name for a pump" ses he. "Tisnt, if you knew the baste" ses I. "For at times we wondher for hours whether she'll start or stop." "An do ye have much call for it" ses he. "We call it ivry name under heaven an hell" ses I. "Do ye have much trouble starting yer car anny time" ses he. "Not much" ses I. "Sometimes it teks me an hour wid a block an tackle to pull her out av the shed to the top av the hill so she can tek a run at it. An I'm tellin ye the truth" ses I, "that shes as much like an auld horse as anything I ivir druv. But when she gets her auld joints limbered up she'll bate Bunaher, and Bunaher is the only man in Ireland that bate the Divil." "She's lakin a bit" ses he. "Twill soon shtop" ses I "for I filled her raddyiator this morning wid bran and giv her a dose av nitre." An I'm tellin ye, Mr. Editur, me knowledge av horses in Ireland has been a wonderful help to me in drivin and handlin a Forest Branch Aluminium Elizabeth. I shud apologise for not answerin your ducint respectable letter sooner, but wan av thim officials from Victoria tuk me out on

the mountin on a cruisin thrip and damn near smothered me wid snow. An thats whyme letter was not with ye on the 15th.

I am sor

Yours rispictfully,

Asst Ranger."

FIRE RANGING IN NORTHERN ALBERTA - It might be interesting to note the doings of the fire patrol in the far North, the headquarters of which is situated at Fort McMurray on the two-mile wide river. The territory of which McMurray is the centre is the watershed of the North, within its boundaries the mighty rivers Athabaska, Peace, McKenzie, and Slave link together the great inland seas, Lesser Slave Lake, Slave Lake, Lake Athabaska and Great Bear Lake. From the shores of the lakes to the banks of the rivers stretches the forest, broken here and there by wonderfully fertile land, and covering great mineral wealth.

"It is the duty of the fire ranger and his twenty-two assistants to patrol this region of 800 sq.miles, to find and fight all fires, to post warnings, and to visit all who go to make up the first line of civilization in the northern wilderness, spreading wherever they go, the need for timber conservation. The men travel in pairs to the lonely cabins which are their headquarters while on patrol. They go in canoes, motor canoes, and small sailing boats, and they carry a season's supply of food and fire-fighting apparatus, including the never-to-be-forgotten Diary. While travelling on the lakes their task is not difficult, except when portages must be made; but when the patrol takes them many miles inland, as sometimes happens, it is exceedingly arduous. Heavily laden, the men must push for days through the bush following some distant smoke signal, telling perhaps of an abandoned and smoldering camp-fire which is eating its way through the peaty subsoil or into the tree roots.

"In June, the chief ranger sets out on his annual tour. He travels 2,000 miles by power canoe, sailboat and H.B.C. steamer, visits each patrol, and returns to HQ, about the end of August, to make preparations for the approaching freeze-up and for the winter patrol. It may seem strange to say that there is a fire hazard in a country covered with from two to four feet of snow, but it exists nevertheless. Many fires burn all winter long. Moreover the trappers and others in the cold weather make large fires for warmth, whereas in the summer only a small blaze is needed for cooking.

"The work as a whole is more arduous in winter, for then he must fight both intense heat and intense cold. Instead of sitting in a comfortable canoe, he must mush along the trail broken for him by his dog team. It is a difficult country for forest protection in many ways, but mostly on account of the peaty undergrowth. Hidden flames get into the roots and peat below the surface, which hidden fires may live for months - even years, until a vagrant breeze, or perhaps a burrowing animal, admits the oxygen which fans the little smolder into a mighty flame." (Anonymous).

IN MEMORIAM

Dr. FERNOW :

The following is the text of a letter from the Dean of the Faculty of Forestry, University of Toronto -

"Dear Mr. Caverhill:

Dr Fernow passed to rest on the morning of February 6th. As you know, he had been in failing health for several years, but he maintained his wonderful mentality to the last. He attended the annual banquet of the Foresters' Club on January 19th., and spoke a few words of encouragement and cheer to the foresters. He was given a University funeral in the chapel of the new Knox College on the afternoon of Thursday, February 8th. We all feel that the chief source of our inspiration has gone, but a life such as his can really never perish. His influence will live on so long as trees are grown or forests are managed in Canada."

Those of us who were privileged to sit at his feet will remember Dr. Fernow as the first Dean of the Faculty of Forestry at Toronto. In fact, we do not think we should be making an overstatement, were we to refer to him as the father of Forestry on this continent. His passing will be keenly regretted by Foresters the world over.

A message of condolence and sympathy has been forwarded by the Department.

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H. G. SHERWOOD :

It is with very sincere regret that we announce the death, on January 23rd., of Herman G. Sherwood, of the Forest Branch Draughting Staff here. His occupation was not one which brought him into direct contact beyond the staff at Headquarters, but with us he was deservedly popular. He was a quiet, courteous, kindly lad, and we liked him well.

THE "F.G. ALDER" -

The Provincial Police have reported to us the destruction by fire of the Launch "F.G. Alder" at Powell River, last week. No details are yet to hand.

It will be remembered that the "Alder" was one of the three Launches loaned by the Forest Branch to the Provincial Police to assist the latter in their work this winter. The others were the "Douglas Fir" and the "Birch".

OUR BOOK-SHELF.

The Low-Grade Hardwood Impasse : W.A.Babbitt and L.C.Bell.
(Lmbr World Review - Dec.25/22, p.28)
Creosoted Woods Recommended for Dock Construction : A.M.Shaw.
(Lmbr World Review - Dec.25/22, p.32)
West Coast Car Material : L.P.Keith.
(West Coast Lmbrman- Jan. 1/23, p.22)
New Method of Producing Charcoal from Mill Waste.
(West Coast Lmbrman- Jan.15/23, p.34)
Oils and Fats from the Seeds of Indian Forest Trees.
(Indian Forest Records, vol.9, part 3)
Moisture-Resisting Coatings for Wood.
(Forest Prod. Lab., U.S.Forest Service, Tech. Note No.181)
Experts Appear to have Solved By-product Problem.
(West Coast Lmbrman- Feb. 1/23, p.24)
Southern Pine Costs - Oct. 1921 to Oct. 1922.
(West Coast Lmbrman- Feb. 1/23, p.38)
U.S.Lumber Cut of 1921 Showed Drop of 9.7 per cent.
(West Coast Lmbrman- Feb. 1/23, p.40)
Argentine Market for Douglas Fir : B.S.Webb.
(West Coast Lmbrman- Feb. 1/23, p.51)
Longleaf Pine : Wilbur R. Mattoon.
(U.S.Dept. of Agriculture, Bulletin No.1061)
Western Juniper for Making Pencils.
(West Coast Lmbrman- Jan.15/23, p.25)
The Oak Timber used in the Roof of Westminster Hall.
(Empire Forestry, Sep-Dec. 1922, p.203)
Indian Teak - a note on its Durability.
(Empire Forestry, Sep-Dec. 1922)
The Effect of Growth Rate on Strength of Soft Woods.
(Can.Lmbrman - Jan. 15/23, p.35)
What is Meant by "Hardwoods" and "Softwoods".
(Forest Prod.Lab., U.S.F.S., Tech.Note No.187)
Heartwood and Sapwood, the Difference between -
(Forest Prod.Lab., U.S.F.S., Tech.Note No.189)
Femelschlaghetrib - a Swiss System of Forest Management.
(Empire Forestry, Sep-Dec. 1922, p.253)
Timber Depletion in the United States.
(Empire Forestry, Sep-Dec. 1922, p.216)
U.S.A., - The Sale of Timber on the Arkansas Nat. Reserve.
(Lmbr World Review - Dec.25/22, p.27)
Kiln Drying of No.1 Common Douglas fir Boards and Dimension;
(West Coast Lmbrman- Feb. 1/23, p.22)
Coatings that Prevent End Checks.
(Forest Prod.Lab., U.S.F.S., Tech.Note No.186)
Utilization of Blue-stained Lumber.
(Forest Prod.Lab., U.S.F.S., Tech.Note No.184)
The Significance of Lumber Standardization;
(West Coast Lmbrman- Jan. 1/23, p.54)
History of the Red Cedar Shingle Industry;
(Western Lmbrman - Jan.'23, p.31)
Tractor Finding Favour Among Loggers.
(Western Lmbrman - Jan.'23, p.19)
America's Transition from Old Forests to New.
(American Forestry - Feb.1923, p.67)
Bibliography, No.13, SPRUCE - Tables of Growth, Form Factors, Taper and Form Tables, etc.

"During the course of our work," writes District Forester Bonney, "each one of us occasionally runs across some original bits of humour. Last week we issued a permit to cut pre-emption timber to a certain pre-emptor near Vanderhoof, who has become notorious for his applications for small timber sales which he usually fails to carry through. The permit to cut, as is usual under Clause 4, specified that stumpage reservation was fixed at NIL. Our friend the pre-emptor, upon receipt of the permit, immediately protested in writing that he positively refused to pay such an exorbitant stumpage reservation. He also requested a legal definition of the term NIL. Apparently he thought that we were working some new system of Roman numerals on him!"

The Ranger Meeting at Thurston Bay was an unqualified success. Papers were well prepared and keenly debated, and it is felt that much good should ensue from the meeting. Quarters were slightly cramped, it is true, but (as our late and lamented friend, Bob Edwards, used to say) "a pleasant time was had by all"

The courtesy of the Deputy Minister of Lands in attending the opening meeting was greatly appreciated.

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The cook and his helper, Chef Claydon of the 'Skinner' and Assistant Ranger Quinn respectively, were by no means the least important factors in assuring the success of the meetings, and the turkey dinner served on the second night of the meeting was both an artistic and a culinary triumph.

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The papers read were uniformly well-prepared and showed that considerable time and thought had been expended on them.

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Ranger's Dixon's luck this year has become a by-word. 120 fires during the Season - and four aces at the Meeting!

.....

The development of the wireless telephone was well demonstrated by the station set's picking up the 'broadcasting' from Portland. (Portland, Oregon? No; Portland, Maine)

.....

The ladies of Thurston Bay helped very materially in making the function a success, and our sincere thanks go out to them.

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This meeting sets a mark for the other Districts to shoot at. We'll see what happens when the Rangers of Cariboo, Hazelton and Kamloops foregather at Prince George; and Cranbrook and Vernon at Nelson.

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The Toast List at the dinner was admirably handled by Major Andrews.

.....

Supervisor Wilkinson attended for the last time as a Vancouver district man. He now moves to Victoria, to take up the post vacated by C.A. Crompton-Brown.

"TEACHING THE YOUNG IDEA TO SHOOT"

The mind of the child is the seed-bed of idealism, and whatever is thoroughly implanted there becomes a guiding principle in later years. Its importance, therefore, cannot be overestimated.

The idea of interesting the school children in Forest Protection, it will be remembered, was discussed at the District Foresters' Meeting here two years ago; but difficulties arose and the project was abandoned. To what extent the idea has been taken up by other District Foresters we do not know, but Mr.E.C. Manning and Mr. Norman Moore (notably the latter) have given a great deal of time to it, and this year in the Squamish District Supervisor T.H.Wilkinson has developed it with extremely gratifying results.

We have before us a number of essays written by the children in the Squamish district, which essays are mainly the result of addresses by the teachers on Forest Protection; so far as we know, Supervisor Wilkinson did not give any lectures.

Generally speaking, the quality of the essays is so good that the awarding of the prizes (which was done by a Committee composed of R.V.Stuart, C.L.Armstrong, and Rangers Daniels and Thompson) was very difficult. However, they were awarded finally to Hanna Sugamori, Allister McKenzie and Harold Dickson.

The prizes were given by Supervisor Wilkinson, who is entitled to all the credit for putting over this idea.

Hanna Sugamori's essay is given below, and also one other, the work of Ethel Anderson, a child of seven years.

(Hanna Sugamori, Age 10. Jr.Third)

"We should protect our forests because so many men make their living out of the woods, and if we destroy the forests by fire these men and their families cannot buy food and clothing, so they must move away. The Government receives one of its largest revenues by the forests. Without this revenue the taxes would be higher. It is worse to burn down a forest than to burn down a village, because a forest of trees takes about one hundred years for nature to build up again. If we did not have the trees, the rivers would run so fast that all the water would run off the hills, and there would only be rivers in a few months of the year. If we build a camp-fire in a forest, we should always scrape the sand away till it comes to wet dirt, and should always scrape away the debris so as it will not catch the big trees. It only takes one little spark to set a forest on fire. If we throw a lighted match down it will catch a root and the root will smoulder for some time, and no one will be the wiser until a large area is on fire. Then it will catch the main tree and then there is the danger of a whole forest burning down. The forests are nice to camp in and also beautiful to the province. Without them the land would be very barren. For all these reasons we should be very careful to look after our forests."

And here's what Ethel thinks about it - and, in reading this, bear in mind that it is the work of a child of seven years. The fact that the idea can be put across to this extent to a child of that age is sufficient in itself to demonstrate the value of a

systematic campaign among the young people in our schools.

"We should protect our forests for the timber can be used for many different things. We can make toys and doll carriages, tables and chairs. The forests furnish lumber for houses and barns, mills, school-decks and pencils, pen-holders. Steamships are made of lumber. The trees give shade to everyone and the birds make their nests in the trees. Sidewalks are made of lumber. Little children can help if they dont pull up the roots, and children can often put out fires. I like to put out fires. If there were no logs houses or schools. If there were no trees there would be no shade. The people from the city come up camping and build fires and pour a little water on and say its out and they go away and the fire starts, and before you can get to it it starts and you cant put it out. Trees are wonderful. If therewere no logs we could not have houses in winter, we would be cold, have no food to eat. If there were no trees there would be no wild flowers nor violets. The forest is pretty. If there were no trees the birds would have no nests"

"Sergeant, ah needs a new pair o' shoes."

"You do, eh? Are those you've on worn out?"

"Wore out! Sergeant, ah tells yo, if ah stan's on a dime wid dem shoes, ah kin tell whether it&s heads or tails!"

How times have changed, to be sure! Once, a person wishing to commit suicide turned on the gas; now he steps on it.

Answers to Correspondents : No, Bill. The horse and rig on last month's cover are not driving on the wrong side of the road. Think again! What side did <u>you</u> drive on in 1917? And anyhow, what's a spook care about the rule of the road!