

OFFICE COPY ROOT AND BRANCH



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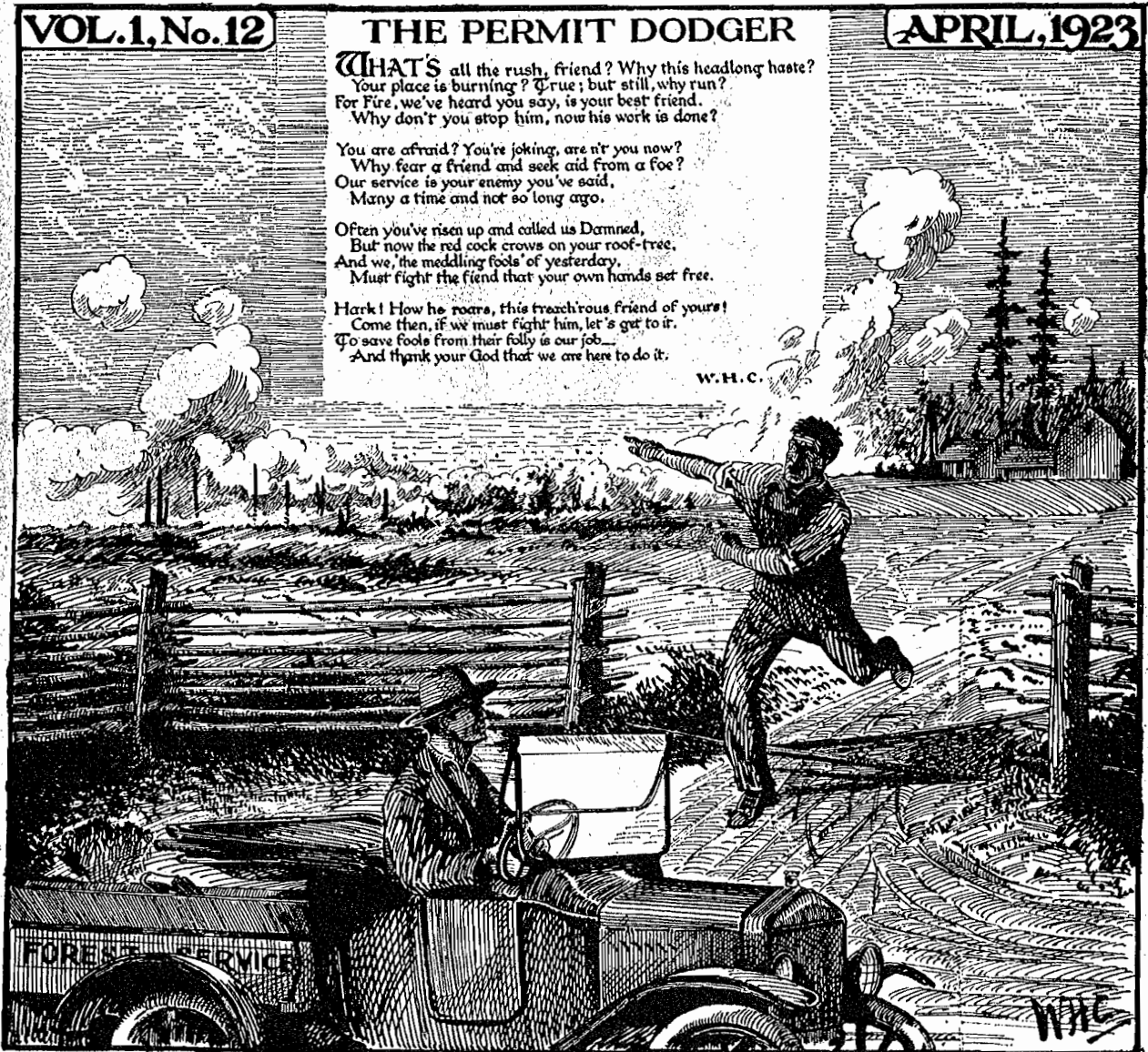
WHAT'S all the rush, friend? Why this headlong haste?
Your place is burning? True; but still, why run?
For Fire, we've heard you say, is your best friend.
Why don't you stop him, now his work is done?

You are afraid? You're joking, are n'r you now?
Why fear a friend and seek aid from a foe?
Our service is your enemy you've said,
Many a time and not so long ago.

Often you've risen up and called us Damned,
But now the red cock crows on your roof-tree,
And we, the meddling fools of yesterday,
Must fight the fiend that your own hands set free.

Hark! How he roars, this treacherous friend of yours!
Come then, if we must fight him, let's get to it.
To save fools from their folly is our job—
And thank your God that we are here to do it.

W.H.C.





THE SPIRIT OF YOUTH

has come amongst us, and for the next few weeks Carnival will claim an important share of Victoria's time and thoughts. Why? Why, because this Twenty-fourth of May is to be signalized in Victoria by a May-time Frolic; for three days Revelry will rule, and for the first time in our history the Civil Service has put forward a Candidate for the Crown of Queen o' the May.

The governing bodies, the business houses, and the social organizations, each as a group, will be represented by a Queen, and from the Court of Queens will be selected, by popular ballot, the Queen of the Frolic.

MISS DORA ROLLS, whose portrait adorns this page, has been selected by acclamation to represent the Service—both Provincial and Federal—and to see her not only Queen of her particular group ("DEMOCRACY") but also Queen of the Frolic is our earnest and quite reasonable ambition. Naturally, the other organizations entertain the same idea for their respective Candidates and competition will be strenuous.

From the fact that the Service as a body up to the present has persistently refrained from taking part in functions of this nature, the impression has been fostered that we are indifferent; it has even been suggested that we are lacking in public spirit and esprit de corps! We wish to demonstrate how utterly mistaken is that idea, and we cannot do so more conclusively than by coming solidly to the support of our Candidate and securing her election.

We make "ROOT AND BRANCH" the medium for a strong appeal to our family pride. Here we have a worthy Cause and a Candidate who graces the honour conferred upon her—an irresistible combination, surely! So rally round, and let's get together. In Union there is Strength, and this particular Battle will most certainly go to the strong. We have powerful competition to meet, and we need the assistance of every member of the Service. The situation is serious; just how serious will be understood when we say that we are in competition with such powerful and far-reaching organizations as the Hudson's Bay Company and the C.P.R. And they are OUT TO WIN!! Shall they? NOT IF WE CAN HELP IT.

Bear in mind that it's THE SERVICE that's competing—not the individual.

By the time this reaches you a liberal supply of ballots will be in the hands of all Government Agents, District Foresters, and Engineers, in lots of One Hundred—Ten Votes, Ten Cents—One Hundred Votes for a Dollar.

It's Dollars as does it!!! And remember that it is not only the tickets you buy for yourself but those you sell to your friends that count.

Knighthood's still in Flower!! Step to it, Forest Branch, from District Forester to Honorary Fire Warden.

WE THANK YOU.

HOW TO BE COURTEOUS THOUGH HARRIED.

If the readers of "ROOT & BRANCH" do not like this when they read it, they must blame the Editor! He chose the subject - and he did it with fiendish ingenuity.

Ordinarily, when anyone asks me to write an article, or give them a talk, I ask them what they want me to write or talk about. You see, I want them to take it for granted that it does not make any difference what the subject is, that I am equally at home with any or all of them. I did not intend to give the secret away so soon, but I may as well confess. It is some ten years since the 11th. Edition of the Encyclopedia Britannica was published, in twenty-nine volumes. Within the past year, another six volumes have been added in order to bring it up to date. I have always figured that it would be next to impossible for anyone to name a subject which I could not learn all about in the thirty-five volumes; and you can imagine my surprise and chagrin when I found the Editor had picked on the one in a million subjects the Britannica was silent upon!

The dictionary gives several meanings to the word "harried", but I take it for granted that in this particular instance the Editor means being worried or bothered by people "butting in" when you are busy, asking foolish questions, making unjust criticisms on your work, and particularly by advice as to how what you are doing ought to be done.

I think the first thing I would advise is to try to "keep fit." If a person is in robust health, it is wonderful what a lot it takes to put them out of temper.

According to his biographer, the tragedy of Thomas Carlyle's domestic life may be attributed to the fact that he was (or thought he was) a dyspeptic all his life. He made his wife's life a burden to her and, after her death, spent the remainder of his life bewailing her loss.

There are not many such spirits as Robert Louis Stevenson who was cheerful and courteous during a lifetime in which he never knew what good health was, and could write on his death-bed - "Glad did I live and gladly die."

Keeping fit does not mean that you must always be worrying about your health, or "what you shall eat and what you shall drink." If you take lots of exercise, work hard, and have a cheerful optimistic outlook on life, I don't think it matters much what you eat or drink.

I left England when I was eighteen because they thought I was dying of indigestion. After working for about eighteen hours a day on a farm in Ontario, I forgot that I had any digestive organs, and have never - or very rarely - been aware of them since.

Next I would say - try to be big enough for your job. If you know you can and are doing your work well, you can afford to be very tolerant to those busybodies who are always finding fault.

There was once a very big man who had a very small wife. The little wife was in the habit of treating her husband so terribly that the neighbours finally took the matter up, and a deputation came to see the big man to see if they could help him out. After listening to them for a while he said, "Why, bless you! it pleases her, an' does me no harm!"

Have you ever seen a big mastiff walking down the road with a lot of little curs yelping at his heels? If you are a student of dog physiognomy, you will have noticed the courteous tolerant smile on the mastiff's face.

I once spent two days with a Provincial Premier. He was telling me about a conference of Provincial Premiers at OTTAWA on the Manitoba School question, which lasted for some ten days and was presided over by Sir Wilfred Laurier, who was then Premier of CANADA. He said the excitement ran very high, and sometimes it looked as if they would come to blows. During the whole of the conference, he said, Sir Wilfred never changed countenance, never raised his voice, and was courteous and composed and kept absolute control of the meeting from first to last.

The big man, the big dog, and the big Premier were all "boss of their job."

The next thing I would advise (I just looked at the clock and I see it is time I was going to bed; and anyway, why should I tell you all I know this month, because the Editor may pick another subject the Britannica is silent upon!) ----- What I want you to keep in mind is that in these little talks of mine I am sitting by the fire and smoking and chatting with you; I don't want it to be a monologue, I expect you to do part at least of the talking. Come into the fireside circle, swap yarns, pull what I say to pieces, worry me, harry me, and see if I can practice what I preach.

G.R. NADEN.

"A great part of the happiness of life," said Longfellow "consists not in fighting battles, but in avoiding them. A masterly retreat is in itself a victory." Of course, there are certain conflicts which must be faced and fought; but it is surprising how many conflicts the resolutely peaceful person can avoid without compromising the right in any way. The occasion for struggle is turned instead into an occasion for agreement, even for friendship. Self-will leads people into most of the strife that darkens and saddens human life. It is not for principle and righteousness that most quarrels arise. (Ex.)

SOIL CONSERVATION

We have heard the term 'Land Hungry' many a time, usually applied in derision to the person over-anxious, perhaps, to get back on a farm. There is a real problem, however, in Land Hunger, a problem already acute in CHINA, INDIA, and in some parts of EUROPE where the demand for products of the soil exceeds the possible production.

This same problem will become acute in AMERICA in the course of the next century or two, and will be the limiting element in our greatness.

The question, then, is one of making the best use of our soil, a distinctly limited resource.

Man's demand from the soil is two-fold - Food and Forest Products. Both are essential to his wellbeing, and the standard of his civilization. Forests, however, not only produce the product necessary to the conduct of our daily life, but exercise a beneficial influence on the areas devoted to food production - so much so, that with Forest destruction goes hand in hand Decreased Production. PERSIA, MESOPOTAMIA, Northern AFRICA, countries which formerly were veritable gardens and centres of advanced civilization, are now largely waste and occupied by decadent races.

GREECE with 13% forested, SPAIN with 16%, and PORTUGAL with 3½% are more modern examples of decline in productivity and national importance following forest devastation.

The National Conservation Commission of the United States, Forestry Section, states that it is necessary to maintain 20 to 35% of the area of a country under forests in order to maintain its agricultural productivity, equalise its climatic conditions, prevent erosion and conserve its water supply. If we accept the theory that the universe is the result of some great constructive force outside mankind, then we are struck by the fact that this same creative force allocated approximately one-third of our areas to forest production, on account of -

Climate - Forests can be successfully grown in a temperature at least 10 degrees colder than is required for agricultural crops.

Topography - 5 to 7 per cent. slope limits, cultivation, 10 to 15 per cent. range land; but forests can be raised on slopes up to 40, or even steeper for protection purposes.

Soil - The lean, hungry sand soils, extremely rocky soils, will bear successive forest crops; but when under tillage for a few years they become worn out and farming is not self-sustaining.

Then we must also face the fact that the wood requirements of a modern civilized nation requires approximately the same

proportion of its area to produce, even when its forest area is under the highest state of silviculture. Thus FRANCE with 18 per cent. forest, must import five to ten per cent. of her requirements; GERMANY with twenty-six per cent. under Forest Management also finds it necessary to rely on outside sources for a part of her supply.

The classification of soil and putting each class to the highest use is one of the minimum requirements of a Permanent Forest Policy. The early classification is more important from a Forest viewpoint than from an agricultural, since we must look far ahead to the time when the crop is to be harvested. In agriculture, the land can be prepared, and the crop grown and harvested in the year; but in forestry seventy-five to one hundred years are required. So that we must now consider the needs of a generation 100 years hence.

In British Columbia fifty per cent. of our area is barren mountain-tops, and eighty-eight per cent. of the productive area (or forty-four per cent. of the total area) is absolute forest land. The selection and definition of this forest land is one of the biggest problems with which we are confronted, and one which must be solved if we are to secure the welfare of the future. Already a start has been made in the creation of the Okanagan Reserves dedicated to timber production and conservation of water supply for the irrigation of the Okanagan Fruit-lands. This year will see a still more active programme carried out, since it is planned to have a field party consisting of a forester and a field agronomist examine and classify lands lying along the G.T.P. between Hutton and McBride.

P. Z. CAVERHILL.

IN MEMORIAM.

James D. Boyd. -

That Jim Boyd was seriously ill was patent to all of us at the time of his removal from Williams Lake to Kamloops Hospital on March 29th., but that his illness was likely to be fatal was a thought which we had resolutely refused to entertain. And when the news reached us on the morning of April 16th. of Jim's death on Sunday (April 15th) it seemed to come with shocking suddenness.

James D. Boyd entered the service on May 7th, 1919, as Assistant Ranger at CLINTON, almost immediately upon his return from Overseas. In October of the same year he received his appointment to the permanent staff as Ranger, and in April 1922 he was appointed Acting District Forester at Williams Lake for the Cariboo District, which appointment he continued to hold until the day of his death.

He was born in the Cariboo in September 1887, and was known and respected from end to end of the famous Road, where he will be mourned scarcely less keenly than by his comrades in the Forest Service.

Our heartfelt sympathies go out to his widow Mrs Mary Boyd, and his brother Ranger W.W. Boyd of Clinton.

PROGRESS IN REFORESTATION IN THE UNITED STATES.

(The following is the text of a radio talk which was broadcasted by the Portland 'OREGONIAN' on January 30th. This talk was given by Mr. Munger of the U.S. Forest Service at Portland, Oregon, at the request of the 'Oregonian'. They stated that they had been asked by the B.C. Forest Service for a talk of this nature on the afternoon of January 30th, in order that it might be heard, if possible, by a convention of Rangers which was meeting at that time at Thurston Bay. Unfortunately, the convention was not advised that this talk was to be given, and as they were listening in for only a very small part of the time they missed it. However, Mr. Munger has very kindly furnished us with a copy of the talk, and a wider audience will reap the benefit than would have been the case had the original programme been carried out.- Editor)

"I appreciate the opportunity to speak in this unique way to the foresters of British Columbia, and to send them the greetings of the United States Forest Service from Portland, Oregon.

"We foresters of the United States have a common problem with you of the North. From a forester's point of view, British Columbia, Washington and Oregon are much alike. Fire burns our forests in Oregon as it does yours, and must be fought by the same tactics. We have much to learn from you, and perhaps we have something of forestry lore that we can give you. We are envious of some of your laws which give a stable background for public forestry. Perhaps we have a headstart of a few years over you in some phases of our work, but we make no boast of keeping it!

"Now that distance is so annihilated that we can talk to each other over a space of 300 miles as though we were in the same room, there is no reason why we should not solve jointly the problems of forestry that are common to both of us. With this new means of intercourse available, there is every encouragement for the free interchange of ideas. The researches of the British Columbia foresters in aeroplane patrol, in radio and in fighting fire with pumps have been most stimulating to us. We hope we can reciprocate.

"I think you may be interested in hearing today something about the acute forest problem of the United States and what is being done to solve it.

"Our acute forest problem is this - The timber of the United States is being cut four times as fast as it is growing. The original area of 822,000,000 acres of forest has shrunk to 137,000,000 acres of virgin woods. Much of the land which has been logged has been put into farms and this is good. But much of it that is fit for nothing but forest production is barren and idle. There are 81,000,000 acres of logged-off land which are not restocking with forest growth. Much, if not most, of the great acreages cut over yearly is left in unfit condition for

reforestation. Only on the publicly-owned lands and a very small part of the private lands is forestry being practiced.

"Most of our virgin timber is being mined, not harvested with care and thought for producing a second crop. The trouble is not so much that we have used our forests so much as that we have used them without thought of renewing them. The majority of private owners do not think seriously of creating continuous forest production; most of them think only of exploiting the virgin resources of timber and then abandoning the land. Fire then completes the devastation, and they are doomed to lie as unproductive wastes - a liability rather than an asset to the commonwealth.

"This would be a dark outlook for the continued prosperity of the wood-using industries and the lumber industry, and in fact for the entire people of the country, were it not for the fact that there is more interest being shown in reforestation throughout the United States than ever before. People are coming to a realization that we cannot continue to cut off our virgin crop of timber without making provision for starting a new crop. The press and magazines are full of articles on the forest problems of the United States, and the public is being educated to an understanding that something must be done. There is no general agreement as to what must be done, but everyone knows that something must be done or the next generation will find itself short of lumber and wood for its industries.

"Foresters and lumbermen have been in frequent conference the last few years to work out a programme which will put the timber industry on a scientific basis of continuous production. Business men are concerned over the outlook. The legislatures in many states of the country are working on this problem, and at this very time the legislatures of both Oregon and Washington have under consideration several forward-looking measures of the greatest significance to the continued prosperity of these timber-growing commonwealths. The Congress of the United States has several forestry bills before it, and recently the Senate appointed a committee to study the forest problem throughout the country, and to recommend a line of remedial action.

"While there has been as yet very little enacted to make the reforestation of privately-owned lands a reality, yet it is a very hopeful sign that there is so much general and intelligent interest in the subject.

"There is a tendency on the part of the public, especially in a timberless state, to blame lumbermen as a class for devastating these lands and not reforesting them. This is rather unfair and is a view not shared in by most foresters. Students of the subject know that the lumbermen are not wantonly wasteful and destructive; they are rather the victims of economic conditions which prevent their utilizing the forest thriftily and discourage them from taking any interest, as a business proposition, in growing future crops of timber on the logged-off land.

"The most serious economic obstacles to the practice of forestry by the lumberman on his own lands in the Pacific North West are the following -

(1) The high costs of transportation from the woods to the principal consuming centres, which make the margin of profit precarious, and preclude the closest utilization of low grade forest products.

(2) The unfair system of taxation of growing timber, which taxes both the land and the crop year after year, when no revenue is coming from the land. This obstacle alone scares many men away from the idea of holding land for a second crop.

(3) The danger of fire destroying investments in young forests. Happily under the present efficient co-operative forest protective organizations, the risk to forest investments is much reduced.

(4) The ordinary business man lacks interest in propositions that are so slow in bringing in returns as crops of timber. Here in the Douglas Fir region, where growth is so rapid, there is less reason for hesitating at forest investment than in the regions of slower timber growth. When young timber is recognised as having a real and marketable value before it is usable, just as a day-old chick has a real value before it is good for anything, then one cause for the hesitancy of investors to go into the business of timber-growing will be removed.

"These are the chief economic obstacles which are at present retarding lumbermen from practicing forestry, from reforesting his lands as fast as he logs them off, from thinking of his land as a timber farm rather than as a timber mine. It is the task of the American people to work out and put into effect methods of overcoming these obstacles, so far as this may be done without transgressing economic principles and in conformity with justice both to the lumber industry and the tax payer.

"Since the war there has been a growing feeling among lumbermen that they have a responsibility to assist in shaping a forest policy and making it effective.

"In the Pacific Northwest, the most popular solution among lumbermen of the forestry problem is to have either the State or the Federal Government take over cut-over lands and see that they are reforested and kept productive. Even if this were practicable and wise, it would be a poor solution of the existing situation; it would be locking the garage after the auto is stolen. The public is not interested in taking over lands that have been denuded to the point of non-productivity, and having to reforest them by expensive artificial means. If the public is to take over logged-off lands, it should be sure that they have been so logged as to be left in a productive and reforesting condition. But even if the lumber industry wants to turn over its stripped lands at a cheap figure to the public, we in the United States Forest Service do not believe that all forest lands should be owned by the public. It is better policy and economics for forest resources, certainly in the productive regions like our Douglas Fir regions, to be divided perhaps about equally

between the Federal Government, the States and private ownership.

"Realising that one of the first steps in solving our forestry problem was to determine what had to be done in the woods to promote a second crop after logging, the Forest Service instituted several months ago a study of the minimum requirement, or essential requirements, necessary for reforestation. This was silvicultural study to settle the much-discussed questions as to what modifications in present logging practice were necessary to assure a reasonably satisfactory second crop.

"One of the handicaps to the spread of the practice of forestry has been the uncertainty that existed as to what the practice of forestry really consisted of. Many intelligent people still feel that forestry consists of planting a tree where one is cut, and that reforestation always means very costly and elaborate artificial means of reforestation with tree planting or sowing. It was to correct these misconceptions, and to standardise forestry practice, that the study was undertaken. It aimed to work out the simplest methods of forestry that would be applicable for private lands. The country was divided into several forest regions for purposes of study. In each case, the United States Forest Service worked in close co-operation with all the local lumbering and forestry interests that the fruits of this research might be the compound of all the best thought and experience of the region.

"The report for the Douglas Fir region has just been completed in preliminary form and I think you may be interested in the results very briefly, for what is true for Western Oregon and Washington is at least partly applicable in British Columbia.

"This study indicates that from forty to eighty per cent. of the privately-owned lands now being logged in the Douglas Fir region are reforesting of their own accord reasonably satisfactorily. The remainder are more or less completely denuded. Nature will do wonders in sowing the seed for a new crop if she is given a chance; but fire is the arch enemy to seedling Douglas Fir forests and unless it is vigorously controlled will render logged-off land a sterile waste of brush. This study shows that most of the requirements for starting a new crop of timber centre around the prevention of fires in logging operations, and on land which is regenerating to trees. Here forestry is ninety per cent. fire control.

"The specific recommendations resulting from this study I would like to enumerate and very briefly describe in concluding my remarks. They are the kernel of forestry in the Pacific Northwest. The observance of these measures will result in the continuous productivity of our forest lands with resulting prosperity to the industry and all allied industries, and therefore to the public at large. They are these -

(1) Better protection for virgin forests; that the present losses of commercial timber may be abated.

(2) The requirement that on each logging operation there shall be a fire chief - a high grade man - whose duties shall be the prevention of fire in the logging works, He should have at his command plenty of firemen, patrolmen and watchmen. And there should be a proper organization of the entire logging camp crew for fire suppression.

(3) Better safeguarding against the escape of fire from engines, smoke stacks and ash-pans. The clearing of donkey settings of inflammable debris and the wetting down of each occupied setting three times a day during the fire season.

(4) Arrangements by which water in quantity under pressure may be available on every part of the cut-over area to which logging lines are laid during the fire danger season. Thus fires which start in inflammable slash may be fought with water - the only effective way of combating such fires.

(5) Fire-fighting equipment ready for instant use at strategic points on all logging jobs.

(6) Prompt and careful slash burning the first season, either spring or fall, after logging is concluded. Too much emphasis cannot be laid on this important silvicultural and protective measure, and the need for performing it skillfully.

(7) The closest possible utilization of all felled material that the minimum amount of inflammable wood may be left on the area.

(8) The falling, before slash-burning, of all snags near railroad tracks or donkey settings, and all those over thirty feet high and twenty inches in diameter anywhere on the logged-off land.

(9) Leaving uncut unmerchantable timber or large trees of unquestionable merchantability which might act as seed trees and help to reforest the area in the event of accidental fires, or in case the seed already stored in the humus was insufficient.

(10) The grazing of stock on logged-off land, beginning two or more years after logging, both as a measure of freeing the ground of inflammable herbage and brush and as a means of bringing in revenue to help to pay the taxes on the land.

(11) And finally - last but by no means least important - the continued protection of the reforesting logged-off land that no fire may run over it and wipe out the on-coming crop.

"These eleven measures are simple enough in principle; they require no radical modification of existing logging practice. Their enforcement will require able execution and attention to details of logging camp administration now too often neglected. Their cost is not large. It is estimated that the expense of these measures for the average operation in Western Oregon or Washington, over and above the present customary practice, will be about sixteen cents for each thousand feet of logs cut. This seems a small cost when the benefits of systematic forestry are considered.

In this region where an acre of forest land will grow annually several dollars worth of the most important timber wood of the continent, it is easy to prove that it is better to realise this potential productivity at an initial expenditure of a few cents than to have this land lie idle, a burden to its owners for taxation and interest and a continuing fire menace to surrounding property."

T.T.MUNGER.

RANGER MEETINGS - The Ranger Meetings held recently at Prince George and Nelson were abundantly successful and this, coupled with the success which attended the meeting at Thurston Bay, proves that the scheme is fundamentally sound. The opportunities afforded by these meetings for the interchange of ideas are of inestimable value, both to the individual and to the Service as a whole.

The advisability of making them a permanent feature seems now to be established, and it is the present intention to hold similar meetings next year.

In regard to the Meeting held at Prince George, Supervisor Leighton writes -

"At the conclusion of the Ranger Meeting held recently at Prince George, I was deputed to convey to you our thanks for the privilege of holding same.

"There was a general expression of agreement that such meetings could only be conducive to the best interests of the Forest Service.

"It was realised that problems that to many of us seemed peculiar to our own areas, proved on examination to be province-wide. An inter-district discussion through the wider field of experience available, clarified our ideas on many subjects where there was a danger of the local viewpoint's being over-stressed and the general principle lost sight of.

"I was further requested to convey to you the assurance of our continued fidelity and our warm appreciation of the consideration and goodwill which have always marked the attitude of yourself and headquarters staff to the force in the field."

"It is a fact of which we seldom think that the city dweller is vastly more dependent on the forest than the man who lives in the woods. The city man's food not only cannot be grown without wood, but it cannot be moved within his reach unless the forest helps. The man who never sees the forest needs it far more than the man who dwells beneath its shade."

"Wood is a renewable resource. Unlike a coal mine or an iron mine, a forest grows. To lumber it in such fashion as to destroy its power to produce is as short-sighted as it is economically wrong. The only way to get wood is to grow it."

GAME PRESERVATION.

The question of whether or not the protection and preservation of Game should be considered as a part of Forest Administration is one which has been often debated. The general tendency of thought in the Service has been away from taking on any such additional responsibility.

The history of game protection shows that in pioneer countries there is very little, if any, restriction on the killing of wild animals. With a sparse population there is at first game enough for everybody, apparently. As the change from pioneer to settled conditions takes place, however, the need for some sort of regulation of the wholesale and wilful destruction of wild life is seen by the more far-sighted citizens, and as a result laws are enacted to fix bag limits, open and closed seasons, game sanctuaries, etc. In the early stages of such statutory restriction, there is usually a certain amount of restlessness and opposition on the part of many of the people to such regulations. Especially do the old-timers, who have lived through the pioneer stages of development and have been used to hunting when and where they would, feel that they are being deprived of an inherent right. Often-times their contravention of regulations is more or less one of the letter of the law rather than the spirit, as rarely is your pioneer a waster of this valuable resource. However the tradition dies hard in a country that is passing through the stages of early development. And during this period of more or less passive resistance, the men who are entrusted with the enforcement of the game laws are not particularly popular in their communities. While they are not ostracized exactly, they are looked upon by those who infringe the game laws with a certain degree of suspicion.

Where many people are in the above class, it may mean that the man is handicapped in his chance to obtain the confidence and friendship of the people, and it is largely (I believe) because we are passing through such a stage in this country that we, as a Forest Organization, have shied at the idea of having anything to do with game protection.

I am not criticising the attitude of our organization in the least; as a new Branch with a new Act, bent on establishing a Forest Policy, needing every particle of friendship and of the confidence of timber users and owners, we cannot jeopardise our chance of establishing this Branch among the people of the Province as an organization giving genuine service, by taking on a function likely to result in lessening the personal popularity of our field officers.

But the question is - Has the time arrived, or is it on its way, when we should reconsider our position in this matter?

Forestry, as is shown in Dr. Fernow's "HISTORY", has from the earliest times been closely associated with game preserves, hunting, and the chase. He states - "Indeed by the end of the

eighth century the word Forst (voorst-foresta), which until then had been used merely to denote the King's property, was exclusively used to designate not necessarily wood-land (the latter being referred to as silva or nemus) but any territory in which the hunt had been reserved."

The Dominion Forest Branch and the U.S. Forest Service assume a considerable proportion of game protection work. In the case of the latter, however, the use of the National Forests as places of outdoor recreation is given wide publicity and is one of the chief appeals in justifying forest protection and administration. The annual report of the Forester says that outdoor recreation ranks today as one of the major resources or utilities of the National Forests, not because of anything the Government has done to facilitate or increase this form of use but because of the demonstrated belief of several millions of people that the forests offer a broad and varied field of recreational opportunity. He goes on to show the number of tourists, hunters and campers who visited the National Forests last year (amounting to over half a million people for the State of Washington, immediately south of us). "The presence of game," says the Forester, "adds to the attractiveness of the National Forests, not only to hunters but to residents generally, and anything that contributes to the abundance and variety of game increases the forests' value for public purposes. The animal life of the forests (that is, their native population, beast, bird and fish) should be regarded and handled precisely the same as their plant life, their tree growth and forage growth."

Mr. Ward Sheppard, in "American Forestry" for October last, gives a statement of the relationship between forestry and game preservation. "The relations between forestry and game preservation is intimate; in truth game production is a part of forestry. Forestry is more than tree culture. It seeks to perpetuate the forest as an integral unit, so that game production takes its rightful place alongside the other branches of forestry. Foresters must, therefore, decipher the principles of game management as they decipher the principles of silviculture. Both activities have this in common, that both deal with a live stock that is never in reality domesticated, but that still yields a manifest increase under intelligent care. There is no more need that game should be exterminated than that Forests should be."

There is brought out, therefore, the points that the forests furnish places of outdoor recreation, places to camp, hunt and fish, and that the protection and growing of forests is necessary and advisable for these purposes. The hunting instinct, which they tell us is inherited from our cave-man forefathers, is still active among the young men of today. It furnishes a link to connect up a lot of people with forestry who otherwise are not directly interested. There is another broader idea of conservation in that game is really a valuable resource which should be conserved and perpetuated, not only for its value in food and fur, but because it serves as a drawing card to those needing relaxation in the open. Recreation in the open, such as hunting and fishing, develops

aggressiveness and endurance, and for men of sedentary occupation recreates mental and physical ability to meet his problems when he returns to his work. Probably the greatest value of wild life lies in its being the vehicle that takes people into the open where is developed handiness, initiative, resourcefulness and mental and physical capacity. That is indeed conservation - conservation of the health of a people!

With us there may be one or two other reasons which might make our assuming some part of the functions of game preservation desirable. One of the desirable objects which Protection is working towards at the present time is One Hundred per cent. enforcement of the Fire Prevention provisions of the Forest Act. As an important part of the drive along this line is Co-operation with the Provincial Police, we have gone further than this and are in some cases asking the Police to initiate action on fires when delay would be dangerous. The police are at present the administrators of the game laws. By assuming some part of this administration, would we be able to obtain closer co-operation of the Police in our work?

One of the difficulties in our organization is that we have to depend on short-term men, largely, for Forest Protection and Cruising work. This means in many cases that the best men cannot be obtained from year to year, with the resultant inefficiency of having to train new men. By assuming certain game warden duties (and appropriations) could we not at least absorb a part of our present temporary force on year-long work?

With the establishment of forest reserves and the development of a scheme of managing and administering them as a public property, we may have to revise our ideas of what constitutes Forestry work. So, in considering the matter of administering Game Laws, let us take a broad view of the matter and not be too much bound by precedent and pre-conceived notions.

R. C. St. CLAIR,

"Conservation means 'the greatest good to the greatest number - and that for the longest time'."

THE FUR TRADE AND FOREST FIRES. That the forest fires of recent years offer the gravest menace to the Dominion's fur trade which is now threatened with virtual extinction, is the gist of a report made by the Fur Trade Commissioner of the Hudson's Bay Co. to the Canadian Forestry Association. The burning of forests not alone kills numbers of animals but drives them to less accessible regions for their maintenance.

(The Editor's Scissors - Ex.)

GRAZING AND FOREST PROTECTION.

That regulated Grazing has a tremendous influence in promoting the success of all forest protection plans for the Interior must be apparent to all Forest officers. The forests of the Interior embrace the summer grazing ranges used by live-stock raised on the ranches scattered throughout the forests.

The development and welfare of the ranches depends upon the use of this summer range. The control of timber and forage cannot be separated; the forester must tolerate grazing and the stockmen must tolerate timber. The best use of the range demands the protection of the timber and the best protection of the timber calls for the regulated and protected grazing use of forest areas.

The stockman has agitated the destruction of the timber to improve the range. Incendiary fires for this purpose have occurred which have destroyed vast supplies of timber. Fire suppression costs have been high, and a condition leading to high suppression costs results in increasing protection costs.

Where fires are the result of a desire to improve the range, increase in expenditures to detect and suppress such fires is not economy unless there is a fifty per cent. effort directed toward the removal of the cause.

The Range user does not realize the value of the timber; it appears to him to be largely useless. A useless thing, therefore, is something in the way of forage growth and, in his opinion, should be removed. Fire appeals to him as the quickest and least expensive way of removing it.

He must be taught that the timber does not retard the growth but actually protects the forage. He must be convinced that the stock will use the timbered range if they are shown the range and encouraged to use it. He must be brought to realize that use of timbered range is necessary if low range is to be protected. Mere argument does not convince him - he must be shown.

The forest officer, therefore, must strike at the roots of this timber-burning desire, and the first important step is that of organizing the stockmen for range and forest protection work. He must give close attention to the improvement of the range to bring about even distribution of the stock on the forested areas. He must be keenly alive to the importance of doing everything to introduce progressive measures into range management work. This will result not only in the advancement of the live-stock interests but will accomplish the ultimate end in view - the development of a kindly sentiment among contented range users towards Forest Protection, and the decrease in that phase of the fire hazard born of the desire to burn timber in the expectation that better grazing areas will result. The field officer, therefore, cannot afford to neglect the expenditure of great effort to accomplish the improvement of the range.

.....

CONSERVATION OF WATER.

Water is the basis of life. The average annual plant is composed of three parts water, and perennials three-eighths. Animals, including human beings, are four-fifths water; the human brain is four-fifths water. While these few facts are commonplace it is worth while to reflect that the brain that has developed in man through thousands of years is mainly composed of water.

According to statistics, the average man of 150 lbs weight ingests each year about 264 gallons of water, the weight of which is more than a ton. Water is so common in the humid regions that the inhabitants do not appreciate its value and importance, and one must go to a dry belt to obtain a proper conception of the value of water where it is the limiting factor of human life.

The ultimate source of water is the ocean. The water evaporates from the sea through the heat of the sun, is carried by the atmosphere over the land, and is precipitated upon the land in the form of rain, snow, hail and dew. Water once precipitated may again be evaporated and reprecipitated before it returns to the ocean through the streams.

The problem of the conservation of water is its fullest utilization. Of the water which falls upon the land, about half soon evaporates; this is often referred to as the "fly-off" water. One sixth is consumed by the plants, or goes far enough below the surface to join the underground water, which is referred to as the "cut-off" water. The remainder, which is referred to as the "run-off" water, passes eventually into the rivers and thence to the sea.

The "fly-off" water cannot be controlled by man, but he is influenced by its effects in the humidity of the atmosphere in which he lives or grows his food. The "cut-off" water which goes underground may, to a small extent, be controlled by man, but seldom are any efforts made in this direction; but this water, by dissolving the earth salts and conveying them to the roots of the living plants, is the source of plant growth. The utilization of "cut-off" water by man is made by boring a hole in the earth, where the underground water usually is found at a reasonable depth and forms wells.

To control the "run-off" water, however, forests undoubtedly should be permanently retained in certain essential areas, such as high altitudes, steep slopes, and the source of large streams.

Forests should be retained on steep slopes and high altitudes because they help to prevent floods. Beneath the trees of a forest a thick mat of leaves and twigs covers the ground. This rests upon mold, which is humus and very porous, and all of this material is like a sponge in absorbent quality. The surface of the ground in a forest is the result of the prying of tree roots, overturned trees, etc., and is extremely irregular, thus forming

numerous basins in which to retain the water until it can be absorbed.

The water absorbed through the surface passes underground and reaches the streams very slowly through seepage. Therefore, the forest cover, the mold, and the basins act as restraining influences and prevent the water's too rapidly reaching the streams. As the snow melts, the forest mold acts as an absorbent and the shade of the trees retards the melting period and tends to prevent a too-rapid run-off and flooding.

Forests also restrain erosion, as the tangle of roots prevents wash, or at any rate reduces it to a minimum. Where the forest is removed there is nothing to prevent the run-off water, which carries off with it enormous quantities of soil and gravel, from choking the rivers with the detritus and so flooding the adjacent lands.

When this process of erosion is continued for any considerable length of time, steep mountains are left with nearly bare rock and very little soil, and at this stage the violence and rapidity of the floods is greatly increased, as the rain falling on the bare rocks is carried down to the streams below as from the roof of a house.

While a forest will restrain the movement of the water, and will hold back for a long time an amount equal to its capacity for absorption, this capacity is not unlimited, and it is necessary, therefore, in order to conserve the storm waters, to construct artificial storage lakes at the head-waters of the streams, which will store and hold the excess of storm waters until they can be utilized and help to maintain a uniform flow of the stream throughout the year.

G. PORTER.

(Water Rights Branch)

"The human race never has been and never will be able to get on without wood. Substitutes are valuable, but the growth of our population and the discovery of new uses for wood more than keep pace with them.

"In the first place, a substitute is almost invariably an inferior article at a higher price. In the second place, the use of substitutes does not on the whole diminish the use of wood. Many a cement building requires as much wood in its construction as a frame building of the same size, and far more wood is used for our houses now than when every house was built of wood. Moreover, for each wood substitute developed two or three new uses for wood are brought to light. One might as well make the statement that because that good old stand-by, the kerosene lamp, has almost disappeared, we can get along without mineral oil. We get most of our light from electricity. Then why worry about oil wells?"

PRE-ORGANIZATION

We are all very familiar with the sign- "NOW IS THE TIME TO BURN YOUR SLASH." We know that this is a direct appeal to the Industry and general public to dispose of a hazard; and whenever this particular sign is read by members of the Branch, it must necessarily give food for reflection. It suggests that there is something to be done NOW.

To the field man who permits his mind to dwell for a moment or two on this matter, the thought occurs- "Now is the time to Pre-organize."

While the mind wanders along the lane of Pre-organization, the field man conceives the perfectly pre-organized district, where at a given signal each section steps forth with speed and efficiency. This is by no means a dream. The season of 1922 has demonstrated that a well-organized Ranger district can cope satisfactorily with the worst fire season.

In pre-organizing it is not sufficient just to collect a number of names and list a few cars, launches or teams. It is obviously necessary to commit any pre-organization plan to paper, and it must also be apparent how essential it is to divide each Ranger district into sections.

When Bill Smith's name is recorded as a foreman in Section 'A', there should be no question about his ability to assume that role. This applies right down the list; no name should be included on any chart if the owner is not capable of fulfilling the task to which he is allotted.

Motors, launches, teams, extra equipment - can the field man derive any benefit from a pre-organization chart which includes means of transportation which are non-existent or cannot be relied upon? Again, in connection with transportation, the matter of cost is very important. The Ranger with the well-organized district has interviewed the owners of launches, cars, etc., and has made his plans so that when the fires do occur there will be no exorbitant rates paid for transportation.

The Honorary Fire Wardens are the backbone of any pre-organization scheme, and it is evident therefore that too great care cannot be exercised in the selection of the men for these appointments.

Can you imagine a list of officers and men to man an ocean liner being compiled, in which the Captain selected was a 'bull-cook', the Chief Engineer a 'timekeeper' and the Chef a Blacksmith's 'helper' - and not one able to carry out his duties? If you grasp the inference here, you can readily see the absurdity, waste of time, and futility of submitting a pre-organization chart which cannot stand the practical test.

A good sound pre-organization plan is one solution of our fire problem, and "NOW is the timetto complete that plan," so that when the Fire Season opens we are ready to handle efficiently economically and with despatch any emergency that may arise.

T. H. WILKINSON.

"'SO YOU'RE A FORESTER!'"— 'So you're a forester! How extremely interesting! Then you can tell me just what I ought to do with my rosebushes,' said the lovely lady to the man who was supposed to know something about trees. That, however, was as far as she got, for the forester knew no more about roses than he did about cabbages, and told her so. Whether he made her understand what his work really was is another matter.

"Foresters usually explain their profession, when they take the trouble to explain it at all, in such a way that the ordinary man is little the wiser. What they know so well they assume that he knows also, and so are apt to leave him as much in the dark at the end of the talk as he was at the beginning. Although foresters knew as much about their work as the average civil engineer does about his, they have somehow failed to give the public a common-sense idea of what forestry is, of what it means to the rank and file, and of what is being done or left undone to put it into practice.

"Ask the man in the street what it is all about and the chances are he will tell you that forestry goes with green clothes and a feather in the hat; that it has something to do with rainfall and tree planting; and that it calls for an intimate acquaintance with bugs and birds and beautification generally. In short, that a forester is a care-free individual who roams the greenwood from morn till eve, frequently bursting into song at the mere thought of being so close to Nature.

"The estimable woman who once asked me to recommend a forester who could supervise the grading of a new lawn in an old cemetery was scarcely more wide of the mark.

"Although forestry has been widely used and thoroughly understood in most parts of the civilized world for the past hundred years, there has been little practice, and therefore little knowledge, of the conservative handling of wooded lands in America. Except by the Government on the national forests, forestry has rarely been applied in this country. It is not altogether surprising that the last thing the man in the street ever seems to connect with forestry is the production of wood for human use.

"But that is just what forestry is — the art of producing wood. The practice of it is a profession with a field and purpose as definite as the arts of law, medicine and engineering. The only wonder is that it has been so long misunderstood. The primary purpose of forestry is to make the forest yield supplies of raw material to meet the needs of men. The farmer grows corn and wheat; the forester grows trees. The manufacturer produces shoes and tenpenny nails and automobiles; the forester produces wood. The purpose of the forester is just as understandable as raising a steer or baking a loaf or building a bridge."

MUTUAL FORBEARANCE

To date I really haven't settled down into Management work, since a large part of my time has been spent in the combined occupation of house-hunting and holiday-making; and in consequence I am still somewhat of a student of my new job and not in a position to put forward any new ideas for the betterment of our work.

However, from a three-and-a-half years' sojourn in a District Office, one point does stand out in my mind as an absolute necessity in the successful conduct of our work, and that is - that there must exist a mutual feeling of confidence between the Head Office and the District Offices, in the desire of each to help the other in the work.

I think that District officers are apt to be unconsciously influenced in their judgment on certain matters by the local public sentiment with which they are in contact all the time; and on the other hand, I think too that the Head Office official does not always attach proper weight to local conditions.

A frank discussion on any difference of opinion will always - must always - help toward a satisfactory solution. I would ask everyone, therefore, when they receive a letter from 'Management' outlining a course of action with which they do not entirely agree, to first of all allow us credit for having attempted to give the question fair consideration, and in that spirit to write and state your objections, where the case seems to warrant it.

If your feelings are too strong for expression in an official letter, make it personal. We'll take it in the right spirit.

E. C. MANNING.

In accordance with our programme, which calls for "Special" Numbers from time to time, we have made CONSERVATION the main theme for this month.

Interspersed throughout these pages will be found extracts from Gifford Pinchot's article "WHAT ABOUT FORESTRY?" which appeared in the 'Saturday Evening Post' some months ago, and much of which is specially applicable to the subject in hand.

By the way, "ROOT & BRANCH" will be one year old next month, and we shall probably make some sort of a Birthday Number of it without emphasising it to the extent of a "Special" - of course, we must keep something in reserve against the day when we attain our majority.

THE CONVERSATION OF 'RED' CEDAR.

'Tannery' Hemlock was a veteran, one of the good old style, and had served his country faithfully and well in the Forestry Corps, but since his return he sure was up in arms about the 'conversation' of timber. Nobody seemed interested, however, until one day he fell in with his old Forestry Corps chum Douglas Fir.

Now, Douglas was a Scotchman, and although Tannery was Irish through an' through, still, for the sake of the cause, and to help their friend 'Red' out, he didn't mind discussing the question with him.

They happened to be standing together when 'Red' was dumped; 'twas low water at that, too, and Tannery's Irish blood was hot.

"Bedad, Douglas, 'Tis a damn shame the way they do be murderin' poor ould 'Red', him that wuz such a good frind o' their's durin' the war. Mannys an' mannys the time he pulled me in out o' the wet, and sure wuzn't it me nursed him through that last attack o' the shingles?"

"Yixr right there, Tannery! Dinna ah ken the hale pack o' them! Puir Red's heart's a wee bit saft, nae doot, an' his hide's a bit thin; but that's nae reason why the hale Canadian an' American forces shud tak a wallop at him. Weel, weel! there's a sorry day comin' an' no sae far awa', Tannery!"

"Howly Moses! Luk at that, wud ye!" gasped Tannery. "Och, the dirty blaggards! do they ixpect that av him? A straight jump o' twinty feet an' onto hard gravel. Sure, 'tis enough to shiver every rib in his body, let alone split the skull o' him!"

"Right ye are, Tannery. You wi' yirr hard heid, too, ye wad'na be expectin' it from the Irish."

"Faith, it's uppish ye're gettin', Douglas! You as tried a jump o' twinty feet not so long ago, an' bin complainin' av ye're back ivir since! But this here" complained Tannery, "tis jist another instance av how they're ill-usin' poor ould Red. Man, Douglas, me hearty, I wuz talkin' to wan av thim Scalers t'other day, an' wud ye believe it - in wan year (an' all the Scalers together, min' ye) in wan year they saw them beat up poor ould Red to the ichtint o' thirty million. An' Douglas, this Scaler fellah explained that that wuz only tin per cint o' three hundred million. Are ye listenin'?" "Ay, Tannery; drive on!" "Well, Douglas, the Lord only knows what they did to him that thim Scalers never saw!" "Ay, Tannery. Ah've seen them same Scalers masel' miss quite a con-sid-erable portion o' the wallops that cam' tae me, Tannery!"

"An' why wudn't they, Douglas? You wid a hide on ye as thick as a ry- ry- " ("Rhinceros?" suggested Douglas) "Sure, 'tis a wonder they see anny av ye at all at all." "Ay, but seriously, Tannery, dinna ye think it's a shame the way they ill-use the laddy?" "Tis so, Douglas, an' if ye were to drop into the Forestry Department or the Loggers Association, or the Lumberman's Association, av a Christmas Eve, Douglas, an' ye were to write thim a check for six hundred thousand dollars—" "That's a heap o' sillar, Tannery!" "Sure, it's a lot, but don't ye think

it wud help out this conversation question?" "Conversation, did ye say?" "Sure." "It's CON-SER-VATION ye mean, Tannery." "Sure, an' I sed CONSERVATION, ye gommeril! You wud the woolly ears av ye! If twuz the skill o' the pipes ye'd hear it!" "Weel, weel, Tannery, yonder's the tug pullin' oot so ah'll bid ye Goodbye. Pleased tae continue the discussion next trip." "Goodbye, Douglas, goodbye, an' bad cess to ye!"

R.H.Chestnut, Vancouver.

IMITATION WOOD MADE FROM CELLULOSE - "At a time when Conservation is so prominently before us, the latest discovery may afford some small relief. A process has just been discovered by which imitation wood may be made from cellulose. The prime constituents are grass, straw, useless weeds and scrub wood. The artificial wood is as hard as Oak or Ebony, and can be worked in the same way. It can be dyed any colour, and when made up and polished exactly resembles wood. It has the advantage of being extremely cheap, and is not nearly so inflammable as real wood. It is a good insulator and may find a wide application in electricity."

W. Barr, Vancouver.

Any Canadian newspaper of 100,000 circulation uses up about 250 spruce and balsam trees for its daily newsprint supply, says the Canadian Forestry Association. Several of the big American Sunday editions are responsible for stripping each week fifteen to twenty acres apiece of Canadian woodland.

"Hitherto forestry has been the occupation of a few. It is about to become the pre-occupation of us all, for we stand on the verge of a very great wood shortage. This shortage it is the business of forestry to foresee and mitigate, even if it cannot be avoided altogether. Forestry, therefore, is nobody's hobby. On the contrary it is a straightforward, clear-sighted, practical, common-sense business; the people need it and are just coming to understand how much they need it."

TO OUR READERS - Send us your contributions now, while you have the time. We have some lean months ahead of us (we are writing editorially, of course), when the work of the Fire Season will engage everyone's attention to the exclusion of our lesser interests, and we cannot hope for many contributions from the field during the Summer months. For that reason we are withholding a few of those already on hand, and it is our intention to publish from time to time extracts from the papers read at the recent Ranger Conferences.

FIELD NOTES

The Nelson and Prince George Ranger Meetings are now history but we hope and believe that the many points brought out at both of these meetings will help to carry out Service a rung or two higher up the ladder of success.

The idea of giving the same subjects to different men, working in different types of country under different soil, climatic and forest type conditions, was to get the different ideas on the same subjects. But the results simply emphasised the fact that, throughout the Province, there are certain broad well-defined principles which apply to every case. Of course, we except the Kettle Valley which has conditions peculiar to itself and its people.

The papers read were uniformly good, and gave every evidence that considerable thought was behind the reasoned ideas brought out in them.

Perhaps one of the most pleasing features of the meetings was the evidence of esprit de corps which is fast making our Service what we would like it to be.

It may seem trite to speak of the behaviour of our men, but when field men get together away from their usual headquarters there is a tendency to stray somewhat from the beaten path. In only one instance, however, did any ~~man~~ ^{man} behave in a way to cause adverse comment, and we are proud of all the others.

We must remember that, as Government officials, we are far more liable to be criticised than any other class, and so we must be doubly careful.

The Department is thoroughly pleased with this experiment and we know the Rangers are. The resolutions presented as a result of the different papers are being carefully considered, and in one particular at least - the education of the school children by means of prize essays - is actually being acted upon at the present moment.

Judging from the papers read, it appears that we have actually found a means of making the field staff 'DO IT NOW', and contributions are becoming that complement of 'Pro' of which the Editor talks so much ('Contributions PRO and CON').

At Nelson Mrs MacDonald, Mrs Pickford and Mrs Price did the honours, and did them right well; and at Prince George Mrs Hunter and Mrs Brewer upheld the reputation of the North.

We are asking the field men to talk to the School Children, tell them about our forests, what the forest industry means to the Province and to the people; tell them of the effects of fire on reproduction, soil, and erosion; tell them of the silting of rivers, of floods which are becoming an annual nightmare; tell them of the

cost in taxes which is holding back the wheels of progress; give them food for thought and material for the Prize Essay Contest which takes place this year, ending May 19th.

Don't pass a School-house. Drop in, meet the teacher, tell him or her of your message, tell them of the prizes that are to be had for the effort, and you can spend a very profitable quarter-of-an-hour doing the work that is rightfully yours to do.

You can't spread a gospel without having apostles.

Each one of you has a message, and to put it across you must expend a little time and trouble. Everyone is convinced, of course, that 'Operation', Victoria, should do this work, but a lot of it is yours. 'Operation', Victoria, don't forget, has a big territory to cover.

If we can get this message over as a result of our Ranger meetings, we have accomplished something. Surely it won't be said that all that happened at Thurston Bay, Nelson and Prince George was an interchange of words!

The Season is upon us now. Let's see what we have learnt from 1922 to make 1923 a banner year.

... ..

At the recent District Foresters' Meeting, it was proposed to hold an Essay Competition to arouse the Forest Protection spirit in the children of B.C. This proposal was also heartily approved at the various Ranger Meetings.

It has been arranged, therefore, for a competition to be held, graded as follows ..

Children up to 10 years of age,
10 years of age to High School entrance,
and
High School students.

Prizes will be given as follows for each grade -

1st. Prize.	Silver Cup.
2nd. do	5 Gold Medals.
3rd. do	10 Silver Medals.

Essays are to be limited to 500 words, and must be in the hands of the District Foresters by May 30th. They will then be marked and the best sixteen in each Grade forwarded to Victoria for the awarding of the prizes.

The cups which are being offered are of remarkably graceful design, mounted on handsome plinths, and will be engraved with particulars of the Competition and the name of the winner. The medals too are fine examples of the craftsman's skill, and will bear on one side a forest scene, which is in itself a consummate work of art, and will be suitably engraved on the other.

EDITORIAL.

We hear a tremendous amount of talk these days about EFFICIENCY. Every magazine is cluttered with it, and everybody seems to have been bitten, more or less severely, by the Efficiency Bug. That's a good thing - a fine thing - if there comes with it an understanding of what Efficiency really is and means.

What is Efficiency? Is it a marvellous system of checks and cross checks, of card indexes and thumb prints, of inhumanly ingenious 'labor-saving' equipment, elimination of waste motion, the compilation of elaborate 'graphs' and statistics (which are valuable only when they are true)? Is it?

No.

Then what is it?

Efficiency is neither more nor less than a scheme of friendly co-operation, which results in getting things done - not so much because one has to, as because one wants to.

The most elaborate pre-organization plan that can be conceived will fail utterly and lamentably, no matter how closely the district has been combed for men, machinery and equipment, nor how intelligently they have been listed, unless the organizer has taken pains to build up in his community a friendly feeling towards himself and towards the service.

For ourselves, we don't care a damn if we should fail to recognize "Mr. Addison Simms of Seattle" at sight, nor if in returning our Autopoint to our vest pocket we do it in three motions where one should suffice. We believe, and shall continue to believe until experience proves us wrong, that the system which places its main dependence for results upon the fostering of a friendly spirit among one's co-workers has the tailor-made systems from the workshops of the "Efficiency Engineers" backed clean out of sight.

We do not deny the necessity for a regularly established routine procedure and for all that that involves - to do so would be stupid in the extreme - but we do believe that the system should be kept subservient to the spirit.

W.H.C.

"IRREGARDLESS" - 'To the Editor - The attention of the District Forester at Nelson is called to a new word that has just been coined by the Vancouver office. In a recent communication they spring IRREGARDLESS on us. In the opinion of the Purchasing Agent, it is singularly fitting that Vancouver office should have been the office to coin that particular word. We hope, however, that they will try these new ones out on us first before inflicting them on the General Public.' (24)

RADIO AND THE FOREST BRANCH

We have in daily use in the Forest Branch one of the most interesting (and shall I say unique?) chains of communication that has been established anywhere up to the present time. I refer to the wireless telephone system that has been in use by the Forest Branch for the past two and a half years, and which is a daily success.

When these installations were first adopted as a Forest Protection measure, wireless telephones were more or less an unknown quantity, but it was shown that beyond doubt this was an ideal means of communication for our use.

The reasons are manifest. The initial installation does not involve the enormous expense which would be occasioned were a land line system used. Maintenance is low as compared with other means, as no linemen or field equipment is necessary. It is not subject to breakdowns due to weather conditions. And it is a consistent worker.

In the fire season especially the volume of work handled is surprising, as many as 16,000 words being transmitted monthly by one land station alone.

Land stations are established at the Court House, Vancouver, at Myrtle Point Ranger station and at Thurston Bay. Each of them is of 500 watt rating, which assures perfect communication between any of these stations at all times. The launches 'R.J. Skinner', 'Cottonwood', 'Kiora', 'Eunice B' and 'Elmera' are each equipped with 100 watt sets, which enables them to work with land stations up to a distance of approximately 40 miles.

At the time the launch stations were first equipped, it was thought that wireless telephone communication from boats of that size was practically impossible, and it would be safe to state that the Forest Branch of B.C. were the pioneers in this respect. It is, I think, largely due to the perseverance and patience of all concerned that such successful results have been obtained.

One of the most discouraging difficulties at present is interference. This may be due to static or atmospheric disturbance, or to other land and ship stations transmitting in the vicinity. In the first case little or nothing can be done; in the latter, quite often a little knowledge of the set you are using will, to a certain extent, overcome the difficulty. Don't condemn your set immediately; you may be in a locality where results are nearly impossible - such as in a land-locked inlet. Your battery may be partially run-down. It is the ranger who takes a patient interest in his set who gets the results - a clear case of "the more haste, the less speed."

Wireless telephones are being improved rapidly, and are gradually superseding the more expensive and slower systems.

H.G. Garman (Radio Operator.)

(This is the first of a series of articles by Mr Garman on the Wireless Telephone. Now that the radio has become so domesticated that to possess a radio set is scarcely more notable than to possess a gramophone, Mr. Garman's articles are bound to be of interest to a wider audience than possibly he contemplated.- Ed.)

THE FORUM.

"It may encourage Rangers who are having difficulty in checking wasteful logging to know how others are getting on," writes F.D.Mullholland. "Here are two extracts, one from the Secretary of a big Company, the other from a Ranger to the Superintendent of another big Company -

"Forest Branch, Court House. We are informed by our Bay Office that Mr, Forest Ranger for that district is going to be very strict from now on in regard to the manner in which Timber Sales and Leases are logged. We would be pleased if you would furnish us with any information governing this phase of the Forest Branch which will guide us in our logging operations. Yours very truly'

"Dear Sir - Further to our conversation of a few days ago, I beg to draw your attention to the fact that the Department is insisting on a closer utilization of the timber on all Timber Sales. Recent inspections made by myself show a decided improvement on your operations. It is obvious, however, that much of the breakage can still be prevented by judicious bucking of the timber. I would ask you, therefore, to give this matter your urgent attention, as it is the intention of the Department to penalize for all avoidable waste, both in booms and in the woods. I would suggest that you familiarise yourself with the conditions of your Contracts and instruct your foremen accordingly, to avoid the possibility of timber being left in the woods, either standing or otherwise. Yours truly'

"Progressive operators are endeavouring to eliminate waste in every possible way, and expect our co-operation. The time is ripe for us to make it unprofitable for the non-progressive operator to leave merchantable timber on the ground. The old excuses for careless management are no longer valid."

... ..

That progressive operators are willing to co-operate with us is very evident from the following -

"I am in receipt of your Forest Protection Calendar for the current year, also letter re one sent to Camp, and will carry out your request in this matter. Timber owners were obliged to pay a heavy assessment last year, and I trust that the coming year will not prove a repetition of the past. In this connection, I would be very pleased if you would advise your Ranger that when he goes to our Camp he should "treat 'em rough" in case they are not complying with all the conditions of the Act. Yours very truly."

... ..

"In Mr MacDonald's very interesting paper on "Mechanical Equipment," writes Ranger Wm.Lowry (McBride), "in your CONFERENCE Number, the possibility of use of radio communication in the mountainous districts was mooted. If the experiments suggested

in the District Foresters' Resolution on the subject are made, I venture to predict from my personal experience with radio that satisfactory results will be obtained.

"In a set with a single 'pea-nut tube' in a regenerative circuit without amplification I have been able to listen in to Vancouver and Calgary broadcasting programmes. McBride district is a typical mountainous region, walled in on one side by the main range of the Rockies and on the other by the Cariboo Range, separated by a very narrow valley. This achievement with only a comparatively feeble set would seem to demonstrate how little effect the mountain barriers have on radio work. And it would indicate, too, that while today we can follow here, play by play, the progress of a hockey game in the Arena at Vancouver, in the near future you at Head Office will be in the immediate closest contact with activities in the remotest part of the field.

"Allow me to suggest that if the experiments are carried out, some attention should be given to the feasibility of using the radio compass in certain lines of forestry work. If the proposed experiments are successful, it may be pre-supposed that District Transmitting Stations will be installed. These stations could be made a base for radio compass work in establishing the three point directionals for location. If such a device were not too unwieldy it could be used to advantage in exploratory work, reconnaissance of watersheds, in trail locations and under such conditions where now only astronomical methods for obtaining position are used."

... ..

"By Direction of the Officer of the Forest Branch in Charge." "Slash must be disposed of. Our Timber Sale Contract demands it," writes the Cranbrook District Office, "and there is a clause 'Slash Disposal' contained therein, more often than not followed by the words 'By Direction of the Forest Officer in Charge.'"

"A contract is an agreement entered into by two or more people to do, or not to do, a certain thing or things. If the terms are ambiguous, it is most unfortunate. 'By direction of the officer of the Forest Branch in charge' is a flaw and a weak point in our Timber Sale Contract. The Contract will stand in any Law Court, but clause 7 wobbles when viewed from the human angle; for, when the contractor has been requested to pile and burn his slash, the reply often is - "There's nothing like that in my contract." We're not playing fair with our field men; when it would be so easy to state when and how slash must be disposed of, in a contract which is impersonal and recognised as such.

"Slash disposal is rather a sore point with all of us. Every ranger knows what it means to approach a logger on a small timber sale, when every suggestion or demand to clean up the sale becomes the subject of bitter controversy, and breeds a feeling of personal enmity for which our field staff is in no way to blame."

... ..

Ranger J.P.Griffiths (Grand Forks), also touches on the slash disposal question. "We had some great discussion (at Nelson) on all questions that bear upon a ranger's work, especially on the disposal of slash, the desirability or otherwise of burning it with the consequent effect on young growth. Mr. Moore of Cranbrook spoke with effect on many matters, as did also Mr. Allen of Vernon. It did one good to see the old stalwarts of the Service like Geo. Watson of Cranbrook and J. Price and Hugh Nelson of Nelson express their views on this subject of burning interest to every Ranger Altogether it was a glorious convention, and may be only the first of many that will be held from time to time. It was appreciated by every person who attended, and I am sure the vision of each Ranger present was widened in its scope, and some light shed on some of our most complex problems."

... ..

Ranger Warburton (Vancouver) makes some very pertinent remarks on "Fighting the Fire Bug". "speaking locally," he says, "my district in a sense is an agricultural one, and there are certain areas where the fire-bugs appear to be as thick as bees! He has just put in a raft of mining timber on a couple sections logs to pay his four months' old store account, and now is just sitting tight, waiting for the road-work to commence. This will pay his next account, until the summer work comes along. Meantime- funds are low, there is no immediate sign of work, so he steps off the road at a well-planned place and time, touches her off, retreats to his vantage point and waits for the Forest Officer, who is usually met with the remark, 'Say, there's a fire up the road. How much yuh payin'?' Yes, I agree with you that such a greeting is likely to severely tax the human nature part but if you get the 'Tea-him-to-pieces' idea, well, forget it; apply the brakes of self-control; Be Courteous.

"Well, we examine the fire and find it is our duty to fight it (which the Bug had figured out beforehand, of course), and men are rounded up, amongst them our friend. You are not able to take charge yourself, so you leave a foreman there and carry on. Eventually you get back to the fire, traverse the fire-break - and meet our friend leaning on a shovel. His one idea of being on the fire is to put the time in and think of the 40 cents per. If the rest of the crew are honest-to-God men and succeed in making the job look short, the bug breaks away and touches her off again, and there you are - an' where the hell are you!!

"I would like to add that usually in one's inquiries into fires caused by this element the cause is generally UNKNOWN, but you have probably pieced together enough information to leave no doubt in your own mind as to how it was caused, but with insufficient grounds for a prosecution. So the idea is this— Just so long as the pay for fire-fighting is enough to make fire-fighting attractive, and so long as it remains impossible to separate the sheep from the goats, then just so long will we have fires caused by this element. Our only salvation is to work out some plan for beating them at their own game."

THE QUESTION BOX

"Where does the braking power of an automobile engine come from? The compression stroke takes energy from the car, the return stroke gives it back. Except for loss by friction and leakage past the rings, of compressed air, the result of the two strokes is zero. How then does the engine act as a brake?"

Our correspondent is in error when he says that the return stroke gives back the energy. The energy is derived from the explosion stroke, but when one uses the engine as a brake there is no explosion stroke, of course, as the ignition is turned off.

The practice of braking with the engine - that is to say, by making the car run the engine instead of the engine's driving the car - should really be resorted to only in emergency, as the pistons have a tendency to draw gas into the cylinders, and from there down into the crank-case, where it thins the lubricating oil.

But what has Mechanical Inspector Blake to say on this point?

... ..

"Why the dog on the cover of the CONFERENCE Number?"

The dog is Jim Blake's fire-fighting dog HEINZ (so called from his fifty-seven varieties) of Quesnel Dam. 'Twas a pity, of course, that the dog should be denied admittance, but his credentials were too far-fetched. (From Quesnel Dam is quite a ways!)

A good story is told of W. McNeill, at one time president of the Stave Lake Railroad, a seventeen-mile construction road built by the Stave Lake Power Co. to serve their camp at the Power House. Incidentally the Company bought a passenger coach which was occasionally hitched on for the convenience of settlers along the route. McNeill had some passes printed and sent to the Presidents of 'other' railroads in Canada, including the C.P.R., of which Lord Shaughnessy was then president, requesting the favor of reciprocation. Shaughnessy acknowledged the pass, but before sending one in return he would like to know whether McNeill had considered the great discrepancy in the mileage of the two systems? Undaunted, McNeill replied - "Dear Lord Shaughnessy. You are of course quite right in pointing out the considerably greater length of your system, but I would like to call your attention to the fact that the two systems are of exactly the same width, namely 4 ft 8½ inches."

McNeill got his pass, so the story goes.

MORE ABOUT FORD'S FOREST

(Continued from our February Number) "We are not cutting and logging much differently from the ordinary lumberman," said Mr. Herman Hartt, the logging superintendent, "but we are looking out for our young trees and getting rid of the brush. We leave all thrifty trees twelve inches and under, excepting on these hemlock ridges, where we cut the hemlock clean. It's a bad fire trap there. I try to make my men use their heads about cutting low stumps, and we insist that they be mighty careful about falling big timber so as not to break up the small trees.

"Brush piling and burning is done right along with the cutting. One good trimmer can keep eight or ten men busy piling and burning brush. Just as soon as the limbs are trimmed from the tree after it is cut, they go on the fire. I find that's the most practical system. About twentyfive piles to the acre. That burns over only five or six per cent of the area, and we try to keep these piles away from the young timber just as much as we can.....I tell you this brush burning in the woods is a great thing. It makes logging a lot easier and then it's the best sort of fire prevention. I figure that our cost of skidding is cheapened seventyfive cents a thousand by getting rid of the brush before we begin moving logs.....Fire is ninety per cent. of the problem of growing timber here in the north, and I believe the forest fires can be definitely prevented only by getting rid of the brush menace. A fire protective system is a good thing and will help keep down fires, but during a dry windy summer it won't stop the fires, once they get started in old cut-over slashings. With the slash cleared up, I believe that our woods will be quite safe from fire after about two years. By that time the sprout growth will be up and there won't be much inflammable material to give trouble. Of course, we will have to maintain some protective system, because our holdings are not all blocked up - how much, we haven't worked out.....Mr Ford is possibly able to practise more expensive and intensive methods of lumbering than the average lumberman, who is looking ahead only until he dies. Lumbermen tell us that raising timber as a business proposition won't go. So far as Mr Ford's business is concerned, we believe that it will. Land which has grown timber once will grow timber again."

"How about the common cry that these northern cut-over lands are needed for agriculture?"

"The trouble with the American farmer today is that he is suffering from over-production. Whenever there is demand for it he can raise two years' supply of farm produce in one year. Why weigh him down with more land, particularly up here in the north where the land must be classed as generally poor? Of course, there are areas of good farm land here, but the sum total of land acreage which is poor for farming and good for timber-growing is so large that the high-grade farm land will naturally pass into farms on its economic merits.

"Where timber will grow we are going to grow it.

"The one essential crop that is suffering from under-production — yes, almost total lack of renewal — is timber. That's our crop."

(Ovid M. Butler in 'American Forestry')

PERSONAL PARS.

The marriage of Ranger H. Oldham, Penticton, to Miss Marjorie Goodman of Osoyoos, is to take place on April 12th. at Penticton. The heartiest good wishes from all his friends in the Forest Branch go to Mr. Oldham and his bride.

At any rate, they get off to a good start; they both get a good man!

... ..

Asst. Ranger Chas. Tyner severs his connection with the Branch at the end of March, to enter the milling game. Captain Tyner has been with us for three years, and it is with much regret that we make this announcement. His unflagging zeal and Celtic humour have made him deservedly popular.

... ..

Ranger G. L. Davies (Alberni) has been in to see us once or twice since his release from Hospital, and states that he is feeling considerably better since his operation. He will put in a week or two in the Vancouver office, until his health is sufficiently established to enable him to resume his duties in the field.

... ..

Ranger O'Grady, who is still in Hospital, has improved to the extent that he was able to stand having his leg broken again to be re-set, and when this second fracture is mended we hope his return to the field will not be far off. His good spirits are wonderful, and we shall certainly be glad to welcome him back again.

... ..

Supervisor Bryant (Scaling staff) is still confined to his home with a severe attack of influenza, and last reports are that it will be several weeks yet before he will be back amongst us.

... ..

Ranger R. C. Gritten, too, was under the weather from the same cause for three weeks, but we are glad to know that he is now quite himself again.

... ..

The Forest Branch family in the Vancouver district has been augmented during the past month. Rangers MacDougall and Burchett both report the arrival of daughters. We welcome the little folks and wish them long life and happiness.

... ..

William Corbett has been appointed Boat-builder at Thurston Bay in place of N. J. Heavenor, who resigned last month. Mr. Corbett is made welcome to our midst.

A welcome is extended too to Assistant Scalers Perrett, Irvine, MacLennan, Todd, Mullet and McKipley.

... ..

Supervisor J.A. Fairbank has resigned, and this with the transfer of Supervisor Wilkinson to a wider field of activity has necessitated a reorganization, to some extent, of the field staff in the Vancouver district.

Rangers H. Smith (N. Vancouver) and G.H. Smith (Wellbore Channel) have been promoted to the vacancies; the former takes charge of the Vancouver Supervisor district, and the latter goes to Thurston Bay.

The Smiths (although popularly known throughout the Vancouver district as 'the Smith twins') are not related.

Harold Smith joined the service in 1918 as an Assistant Ranger, and received permanent appointment as a Ranger in the latter part of 1919. G.H. Smith entered as a Launch Engineer in 1917, was a patrolman in 1918, an Assistant Ranger in 1920, and in the fall of 1920 was appointed a Ranger.

C.J. Haddon, late Assistant District Forester at KAMLOOPS, has been administering the Cariboo District for the past few weeks and has now been confirmed in his appointment as District Forester.

However deeply we may regret the necessity for this appointment, we still are glad to be able to recognise the sterling qualities of C.J. HADDON.

... ..

Assistant Scales Younie, Heard, Mitchell, Kearns and Garrett are congratulated on their attaining the status of Official Scales. Mitchell and Kearns go to the Prince Rupert District. Scales Boyle, we hear, has resigned.

... ..

Competition for appointment in the Forest Branch gets keener every year. At the examination for Assistant Rangers held in Vancouver on March 6th. there were 87 applicants, and at Nanaimo on March 8th. 23.

... ..

"Forest Protection plans for the coming season are occupying a good deal of our time just now," writes R.V. Stuart.

"Our launch overhaul programme is partly completed, with the exception of the launches "Hemlock", "Beatrice R", "Balsam", "Douglas Fir" and "Arbutus", and twentyfive portable pumps have been overhauled. The remainder we hope will be finished by the end of April."

... ..

Reports to date would indicate that the School Essay Competition will go 'over the top' in brilliant style.

T.H. Wilkinson speaks enthusiastically of the co-operation extended to him by the Principals here.

That we shall gain our objective in this phase of our annual Offensive is a certainty.

"Before retiring into the sawdust," writes Captain Tyner, "I want to take a last chance of getting even with you fellows in the Forest Branch. In the first place, I felt very badly at not being at your convention at NELSON. However, after Bob Little explained to me that the thing was for nothing less than Rangers, I was satisfied. The only thing that stopped my tears was Bob's promise to let me wash his car for him when he got back. It pleased me immensely.

"I have had some glorious times with you; it would take a whole copy of 'Root & Branch' to tell them all. One of the times was when Oldham and I started for Penaske Lake at 2.00 in the morning, and the lovely sleep we had on the side of the road when we got to the Indian Reserve at Douglas Lake. It was so damn hot that we doubled up in our blankets to keep cool.

"Another little incident was memorable. The District Forester was on one side of a lake and I was on the other. A duck came skimming along the surface and just as it got between us I fired and dropped him. I shouted across 'I got one!' And the District Forester answered back, 'You got two, damn you! You shot me in the shin!!!' When we got back we sent Mr. Allen one of the geese, and mentioned that it ought to be good as we shot it at a high altitude, and Allen wrote back to thank me and said it was so beastly high he couldn't eat it!

"Well, well; I mustn't weary you with any more of my rem. or I'll get garrulous. But I do hope the chap that takes my place will have as good a time as I had, and if he gets the courtesy and consideration that I have got he will have no kick."

We wish the Captain the best of luck in his new enterprise. To quote the District Forester, "At least we will have one mill in the district whose 'marks' will always be right, whose monthly returns will come in promptly and properly made out, whose accounts will never be in arrears, and whose men and equipment will always be rushed off to the nearest fire under an experienced fire-fighter."

.....

"Once while I was about twelve miles from Grand Forks," writes Ranger J.P. Griffith, "I passed a Doukhobor bound for town, and took compassion on him to the extent of giving him a lift. As it was late I wasn't paying much attention to the comfort of my passenger but kept putting a little life into 'Liz'. After a while the Douk said to another fellow who happened to be travelling with me, 'You tink that man stop at Grand Forks?' 'Oh, yes. Why?' 'I never ride with that fella again. I have to put too much trust in God!'

"The moral I seek to draw from this statement of the Douk's is that we should all have our plans and our equipment in such shape at the beginning of the coming season that we shall not be bound to lean too heavily on Providence, but will bear in mind that the Lord helps those that help themselves!"

"If you think this letter worth publishing, I will write again," concludes Ranger Griffith, "but whether you publish this or not, I will write anyway." THAT'S the spirit!

"THE MOST SUCCESSFUL EVER STAGED IN CANADA"

"I have just read over your CONFERENCE Number of 'ROOT AND BRANCH,' writes Provincial Forester G.H. Prince of New Brunswick, "and I wish to thank you for sending this to me as it certainly gives me an opportunity to secure the results of such a beneficial Conference without being present. From the reports and discussions it would seem that your Conference must have been the most successful ever staged in Canada. I was especially interested in the interest shown by your Minister as evidenced by his remarks at the Conference.

"I would not miss receiving 'ROOT AND BRANCH' regularly for a good deal as it takes me back to the pleasant five years I spent in your service some time ago. I shall certainly appreciate being continued on your mailing list."

To take every precaution in regard to FIRE is not only advisable, but a duty. With the Manager of one of the Island mills, however, the thing amounts to a positive obsession.

"You can't be too careful with fire," he told his new night watchman. "Call me at any hour if you're in doubt or difficulty."

At 2 a.m. next morning the telephone rang by his bedside. "It's the watchman speaking," said a strained voice. "Say, there's a fire down here, an' I've poured water on it till I'm like to drop in my tracks, but she's still burnin' somewhere." "I'll be right down," said the manager, as he hustled himself into his pants.

"Where is it?" on arrival at the plant. "Right here," said the watchman, pointing to a spot where the surrounding area was ankle-deep in water, from the centre of which rose a thin spiral of — Smoke? No, steam.

The leaky steam-line was repaired forthwith.

CO-OPERATION - Another progressive Company which has shown willingness to co-operate with us is the Comox Logging and Railway Co., Courtenay. This Company are converting their locomotives and skidders from coal and wood burners to fuel oil, thereby eliminating the danger of fires being started in the dry season by sparks from these machines.

"I beg to advise," writes one District Office, "that the Forest pumps in this district are supplied with two muzzles each."

NOTABLE SAYINGS OF THE GREAT AND NEAR GREAT.

Some few months ago we suggested that our pages might be enlivened by an occasional Guessing Bee. The suggestion did not meet with much response, it is true, and the identity of Col. Smith-Brown-Jones, KC., BVD. is still shrouded in mystery. But one unsuccessful effort does not constitute a failure any more than one straw-hat makes a Summer, so we'll try it again.

Here are some Notable Sayings of the Great and Near Great which should be familiar to not a few of us, and to the competitor turning in the best card we are offering a prize of Ten Thousand Roubles - for convenience sake, we will send the winner Two Cents and he can keep the change.

- (1) "M-m-m-m-m! Not bad, but not so good."
- (2) "I shall be glad"
- (3) "Shall I hit him, B---?"
- (4) "You must try this wonderful wine of Malta!"
- (5) "Lucky it wasn't the right forefinger."
- (6) "For your information, please,"
- (7) "The noisy axle gets the grease."
- (8) "Oh, she's not a bad launch, BUT--"
- (9) "That will cost you two Aspirins."
- (10) "Where's the bath-room?"

Another one is offered, complete with Answer, Shock-absorbers, Tool-box and Bumpers fore and aft - "Why is **** Office like a cuttle fish? Because, when in danger of being cornered by its enemies, it makes its escape under cover of a cloud of ink."

(The fact that there are only four asterisks has no particular significance.)

* * * * *

Conservation - of Effort - A Property Loss Certificate was brought to our notice the other day, which read -

"3 Wicker Chairs (equipment of launch) worn out by continuous use."

* * * * *

"A nice new blind you got it, Abe!" "Yes, Mawruss. My customers they gave me that." "Oi gewalt, Abe! You don't say!" "Yes, Mawruss. I put a box on the counter, Mawruss, marked 'For the Blind' - an' they all came across."

* * * * *

"Sometimes a fellow runs across an original one," writes Ranger Jackson Thompson (Vanc.), "Here it is - clipped out from 'Church Services for Tomorrow.'"

"Service at 10.30 a.m. Subject: The Three Great Failures. Choir, Sermon, Pipe Organ Offering. All Welcome."

* * * * *

PERSONAL PARS

(continued from page 33). The latest to forsake the pen for the Biltmore stick is L.B. Webster, who has been appointed to the Ranger district with headquarters at LUND. Webster's place at Myit Point has been taken by G.R. LEE - a newcomer amongst us, who is made welcome to our midst.

Do we hear that Supervisor's Assistant E.J. Nash intends to emulate L.B. Webster? -----

Ranger Willcock (N. Vancouver) has just returned from a visit to the Old Country where he has spent the winter with his parents. He has promised to favor us with a short account of his travels. Ranger Willcock takes over the district formerly administered by Supervisor H. Smith. -----

Supervisor MacDonald (Vanc) reports the arrival of another son. Hearty congratulations! We wish the little chap the best of luck. -----

THERE IS ONE IMPORTANT POINT TO BE BORNE IN MIND IN CONNECTION WITH OUR CAMPAIGN FOR THE ELECTION OF OUR CANDIDATE AS "QUEEN OF THE FROLIC" AND THAT IS - THAT THE CONTEST CLOSES DEFINITELY ON MAY TWELFTH (A WEEK FROM NEXT SATURDAY) AND ALL RETURNS MUST BE IN OUR HANDS BEFORE THAT DATE. TURN THEM IN TO THE DISTRICT FORESTER OR SEND THEM DIRECT TO THE EDITOR OF 'ROOT & BRANCH' - IT'S IMMATERIAL SO LONG AS THEY GET HERE, AND GET HERE IN TIME.

District Foresters are being asked to keep Head Office posted in regard to the progress made in their respective districts in the matter of Forest Protection Week. We would like to know, for instance, what schools were visited and by whom, to what extent the movement has been taken up by public bodies, by the business organizations and by the Churches - in short, we would like a general resume of the situation from time to time from each District, to enable us to form some idea of the general trend of public opinion throughout the Province. -----

We understand that a very pleasant little function graced the departure from Thurston Bay for Victoria of Mr and Mrs Wilkinson. No details are to hand, but we gather that a considerable contingent of field men were present, and at least two District Foresters - viz L.R. Andrews and P.S. Bonney (the latter on his way to Prince Rupert).

Regrets were freely expressed that the popular couple were to be taken from their immediate midst, but Mr Wilkinson in his larger sphere will still be a frequent visitor. -----

"The noisy axle gets the grease" - so long as it doesn't get too darn noisy.

OUR BOOK-SHELF

- America's Transition from Old Forests to New.
(American Forestry. March, 1923. P.163)
- The Shifting Bases of Big Pioneer Industry. (Synopsis of Address by L. L. Brown, 'History of Lumber Industry in Canada and U.S.')
- (Canadian Lumberman, March 15, '23. p.71)
- A Plea for Commonsense in changes of Botanical Nomenclature.
(Journal of Forestry. Jan. 1923. p.61)
- Building Population by Building Forests. Dr. C. D. Howe.
(Illustrated Cdn. Forestry Magazine, Feb. Mar. '23)
- Dr. Bernard Eduard Fernow, - An Appreciation - Dr. C.D. Howe.
(Illustrated Cdn. Forestry Magazine, Mar. 1923)
- Washington Forest Fire Assoc. Annual Report, 1922.
- Some Aspects of the Use of Annual Rings of Trees in Climatic Study.
(Scientific Monthly, Vol.15, No.1 - 1922)
- Economic Aspects of our Timber Supply.
(Journal of Forestry, Dec. '22. P.837)
- Why a New Grade of Douglas Fir is Necessary.
(West Coast Lumberman, March 15 '23. p. 30)
- Statistical Consideration of B.C. Production and Gain in Export Trade.
(Canadian Lumberman, March 15 '23. p. 73)
- Logging Railroad Maintenance.
(The Timberman, March '23. p. 43)
- The New B. C. Grading Rules. Flooring, Ceiling, Siding, Finish and Selected Common or Shelving Grade.
(Pacific Coast Lumberman. April 1923.)
- Brush Burning in Northern New Hampshire.
(Journal of Forestry. Jan. 1923. p.54)
- Silvicultural Research in Canada.
(Illustrated Cdn. Forestry Magazine, March, 1923)
- Research an Aid to Forest Production.
(Illustrated Canadian Forestry Mag., March, 1923)
- What Greater Use of Aircraft means in Forestry Survey Work, Fire Prevention and Steady Development of National Activities.
(Canadian Lumberman, March 15, 1923. p.89)
- The Western Yellow Pine Mistletoe.
(U.S. Dep. of Agric. Bulletin, No.1112)
- Recreation in Forestry.
(Journal of Forestry, Jan. 1923, p.10)
- A Plea for Game Conservation.
(Illustrated Cdn. Forestry Magazine, Feb. 1923.)
- Game - Fifteen Years of Tragedy.
(Illustrated Cdn. Forestry Magazine, Feb. 1923)
- Construction of Logging Railroad Tunnels.
(The Timberman, March 1923. p.34)

Spark Arresters - The following makes have already been registered and approved by the Department. For Locomotives, - The Radley Hunter, The South Bend; for Donkey Engines, - South Bend, Bommerang, Davidson, Adams.

Others will be mentioned from time to time as they are registered.
