

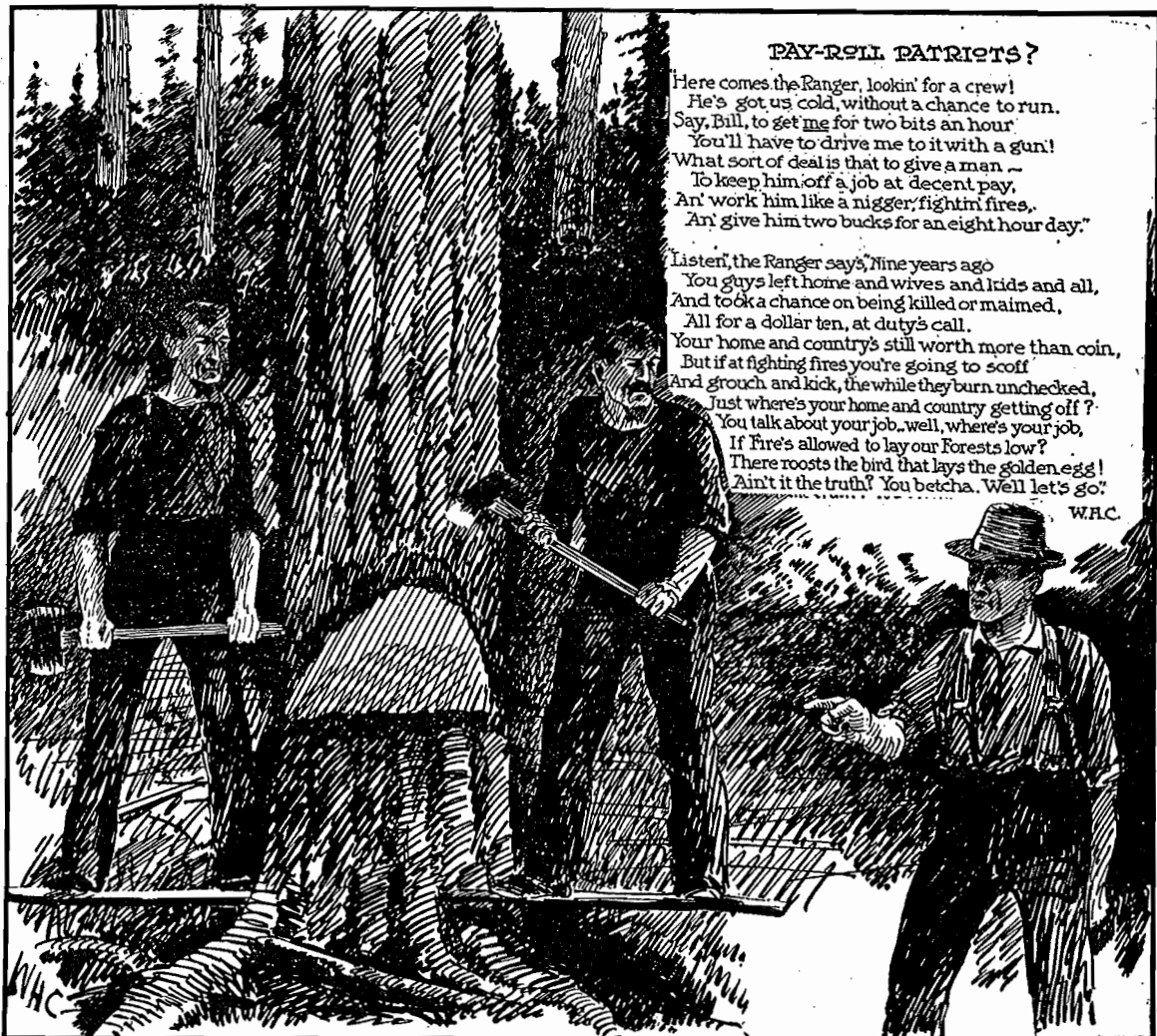
ROOT AND BRANCH

BRITISH COLUMBIA
FOREST SERVICE
LANDS DEPARTMENT

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No. 4.



PAY-ROLL PATRIOTS?

Here comes the Ranger, lookin' for a crew!
He's got us cold, without a chance to run.
Say, Bill, to get me for two bits an hour
You'll have to drive me to it with a gun!
What sort of deal is that to give a man ~
To keep him off a job at decent pay,
An' work him like a nigger, fightin' fires,
An' give him two bucks for an eight hour day."

Listen, the Ranger says, nine years ago
You guys left home and wives and kids and all,
And took a chance on being killed or maimed,
All for a dollar ten, at duty's call.
Your home and country's still worth more than coin,
But if at fighting fires you're going to scoff
And grouch and kick, the while they burn unchecked,
Just where's your home and country getting off?
You talk about your job, well, where's your job,
If fire's allowed to lay our forests low?
There roosts the bird that lays the golden egg!
Ain't it the truth? You betcha. Well let's go!"

W.H.C.

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This magazine is a staff publication, and is not in any sense a medium for the expression of Governmental policy.

The object of its publication is to promote discussion, foster exchange of ideas, disseminate news of "family" interest and, through the encouragement of individual initiative, to strengthen the spirit of co-operative effort.

FLOOD/TIDE OF LIFE

Geo. R. Naden.

The Forestry Conference is over, and the sixty-odd members are already on their way to every quarter of the habitable globe. But in this article I intend to confine myself to the personal reactions; at some future time, I may try to consider some of its broader aspects.

As a result of the Conference, I hope and trust that I am a better British Columbian.

After travelling over the Dominion, from the Pacific to the Atlantic, having talked with people in practically every Province, having listened to papers read by persons from every English-speaking country in the world, and having tried to keep my eyes open during the daylight hours for five weeks, I have returned to British Columbia with a better conception of the inestimable wealth we have in our Forests.

If we manage our Forests with prudence and commonsense, there is no reason why they should not, for all time to come, be a source of tremendous wealth, sustain an ever-increasing population, and pay off our Provincial debt.

Sometimes I wonder if we in this Province have any conception of relative values. It is estimated that less than Five per cent. of our total area can profitably be used for Agriculture; it is estimated that nearly Fifty per cent. of our total area can grow Timber! But in our British Columbia University, how many Professors are teaching Agriculture? And how many are teaching Forestry?

As a result of the Conference, I hope and trust that I am a better Canadian.

A great and influential Eastern newspaper has been "Whispering of Death." Surely the "Whisperer," if he has eyes, cannot see! Or it may be that the film of death is gathering over his eyes, that he is dying and does not know it.

Seen through my eyes, there is no sign of Death in our Dominion. To me, Canada is in the very heyday of lusty youth and, like most red-blooded youths, does not appreciate its inheritance.

Youth with an abundance of wealth is apt to be profligate. Canada, being so wealthy, has been careless of its wealth and its Forests have been squandered by fire and pests and improvidence. Too much of its capital has been expended in building railroads ahead of time. The wild oats having been sown, the harvest was inevitable.

But all these things are not signs of Death - they are merely diseases of youth. That stage is passing, and the youth is beginning to sober up and take stock.

Evidence of this is seen everywhere. Every Province is bringing in advanced Forest legislation, and Forest Nurseries are seen in Quebec, Ontario and the Prairie provinces.

At St Williams (Ont.), the Provincial Nursery is demonstrating what can be done with farms abandoned on account of drifting sand, and a desert is being made to blossom as a rose!

At Indian Head (Sask) a bleak, bare prairie has been turned into one of the beauty spots of the earth in the short space of nineteen years. The effect of that one object lesson on the future of the Prairie provinces is incalculable. I would rather be Norman Ross, the Superintendent at Indian Head, who can see every day the result of nineteen years' work, than Prime Minister of Great Britain!

CANADA IS ALL RIGHT. "The harvest is plentiful, but the laborers are few."

As a result of the Conference, I hope and trust that I am a better citizen of the British Empire.

It has been grand for the representatives of the younger nations and Crown Colonies to have associated for six weeks with the representatives of the Motherland, and to have had the benefit of their wisdom and ripe experience.

No one with a desire to learn could be for six weeks with Lord Lovat and Sir James Calder; with Doctors Borthwick, Story and Munro; with the witty representative of the Irish Free State; with Robinson of Great Britain and Troup of Oxford; with Dr Howe of Toronto, Dr. Swaine of Ottawa, Bedard of Laval, Piche of Quebec and Zavitz of Ontario, without adding to his knowledge of men and affairs.

The British Empire is something more to me as a result of the Conference. There is now a comradeship which can never be broken. Whenever I think of India or Ceylon, of the Malay States or Kenya Colony, of South Africa or Nigeria, of Australia and New Zealand and British Guiana, I shall think of the representatives of these places and of the friendships formed and cemented.

I shall feel that in the Colonial Office there is Major Furse, who will have a kindly recollection of British Columbia.

Knowing Dickie and Prince and Webb, Nova Scotia and New Brunswick do not seem so far from British Columbia, and a closer touch has been established with all the Provincial Forest Services, while the kindness, courtesy and consideration shown by Finlayson, Craig and Cameron, of the Dominion Service, can never be forgotten.

A SUMMER DRAMA

(Gretchen Gibson, in the
VANCOUVER DAILY PROVINCE)

"Cigarette?" "Thanks!" The elder man selects a cigarette and lights it. "Great place this!" he remarks, "country's getting pretty well dried up, though." His companion nods lazily.

Both men lie on their backs, gazing contentedly at the slightly swaying branches of the fine forest about them.

"Well, we'd better be getting along," finally says the elder, flinging his cigarette butt into the nearby brush. "Must be some three miles to the car." And they gather up their fishing rods and are gone.

... ..

Over the spot they have left, peacefully, beautifully, evening falls. Feathered busybodies of the woods and other little gadabouts of the day chirrup and drone their more or less melodious vespers as they settle into their respective hiding-places for the brief summer night. Nocturnal creatures awake, eager to partake of the share of the joy and plunder of existence - and one and all of these creatures - creatures of feather and creatures of fur, creatures of marvelous skin and flimsy, gauzy loveliness - one and all of these creatures, sleeping and walking are possessed of a common powerful impulse - to survive - survive - survive. It extends even to the plant life of the Forest, this impulse to achieve complete fulfilment of such life as is their birthright.

It may be that in the tiny spark still glowing in the butt of a cigarettenwhich lies among the dry midsummer underbrush, this same impulse exists. But surely the chances are more than ten to one against the spark's survival. However, the evening breeze grows stronger and a dried leaf falls here and there; in fact, one leaf falls directly over the spark.

... ..

Flames, orange, violet, reddish, yellow, graceful as a Spanish dancer, curving, sweeping, darting, crackling, roaring, licking -

Smoke-blinded, frantic creatures, creatures of feather, creatures of fur, creatures of marvelous skin and flimsy, gauzy loveliness, all madly impelled by their great common impulse to survive - survive - survive, moan and cry and howl and shriek, and perish, while the agonized forest surrenders the wealth of its greenness to the crackling flame fiends.

And, oh! oh! a man, a little fire-smeared, frenzied man (not one of the fishermen) jumps spasmodically up and down; leaps from side to side; flings his arms wide, shouts, screeches. But the flames, graceful as a Spanish dancer; orange, violet, reddish, yellow-sweeping, circling, roaring, darting - these insatiable flames - spit their contempt upon the impotent little jumping-jack;

wrap him about in iridescent garments and lick him impatiently from their path.

.....

A few days later our two fishermen chance to meet. Remark the younger, "See where a forest fire swept through the country we were fishing in the other day." Replies the elder, "Yes, too bad! Quite a bunch of valuable timber destroyed, I believe. Wonder how it ever got started!"

("Having been connected with the Forest Branch at Nelson for some years," writes Mrs Gibson, "I have never lost interest in its work," We remember Mrs Gibson as Miss Gretchen Phair, who resigned from the Service in 1915 to take up residence in Prince George. We are delighted to hear from her again, and to know that she is still a warm champion of the service in which she laboured so acceptably.

KNOW THE WORK OF THE FOREST BRANCH. - With this issue of "ROOT AND BRANCH", each Forest officer will receive a copy of the Annual Report for the year 1922.

This report makes interesting reading. It discusses briefly the condition of the industry, tells of our increasing export trade, outlines our Forest Investigation work, and gives a history of last year's Fire Season. In short, it contains a wealth of information covering all our activities for the past year.

Read this Report - it will enable you to answer more intelligently the many questions put by the enquiring public, thereby earning its respect, while giving you a greater interest in your own work.

WHAT DO WE BURN WHEN WE BURN OUR TREES?

"What do we burn when we burn our trees?

We burn the home for you and me,

We burn the carriage-house, barn and shed,

The baby's cradle, the little boy's sled,

The bookcase, the table, the rocker of ease,

We burn all these when we burn our trees.

"What do we burn when we burn our trees?

The daily comfort which everyone sees,

The wages of men for years to come,

In factories big where busy wheels hum --

For industries many depend on trees --

When our forests burn, we burn all these.

"What do we burn when we burn our trees?

The home of birds, and squirrels, and bees,

The home of the brook and the cooling spring

Where violets blossom and bluebirds sing,

The beauties of nature, so fair to please --

We burn all these when we burn our trees."

(Canadian Home Journal)

OPERATORS ORGANIZED FOR FIRE PREVENTION

R. V. Stuart

On the whole the fire situation to date this year has not been nearly so acute as in 1922, but there has been comparatively little rainfall in the Vancouver district for the past five weeks and lately there have been many new outbreaks. Improved Protective organization in logging operations this year has been responsible to a marked extent for the decrease in operation fires and fire loss.

Assistant Forester Wilkinson and I made a trip through the lower Ranger Districts recently. I believe Mr. Wilkinson intends to write an account of this trip for 'Root and Branch' so I will confine myself to mention of one of the operations which we visited.

This operation is situated on the lower Coast and has suffered from bad fires in the past. But this year, the Company have organized for Fire Prevention with a thoroughness which, to my mind, would satisfy the most exacting Forest Protection enthusiast.

They have a considerable mileage of railroads and operate four locomotives and fourteen donkey engines. These machines have been converted to use oil fuel, but notwithstanding this, each is equipped with more than the regulation complement of fire-fighting tools, including a steam pump and three hundred feet of hose.

Where two machines are working within fifty feet of each other no difference is made, but in every case each machine is fully equipped.

The Company are employing a staff of fire patrolmen which they are increasing as the hazard grows. At the time we visited the operation, they had seventeen patrolmen employed. They have a telephone system throughout their entire operation and call-boxes at all strategic points.

Their fire-fighting equipment includes four steel tank cars, each with a large steam pump and two thousand feet of $1\frac{1}{2}$ " hose; twelve portable gasoline fire-fighting pumps, and twenty-six thousand feet of $1\frac{1}{2}$ " hose for these; and emergency tools for five hundred men are distributed at the various tool caches.

Sprinkler systems have been installed on all important bridges and are being put in at the camps. Fire buckets and other tools have been placed at one-thousand-foot intervals for the entire length of the Company's railroad, including all spurs.

Supervision of the protective organization on this operation is taken care of by the Superintendent personally. He is a confirmed protectionist, and considers that the prevention of fire is of much more importance in the summer months than the getting out of logs. To secure co-operation of the employees and

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"put Forest Protection on a profit-sharing basis on this operation as the superintendent phrased it, they pay a bonus of five per cent to all employees every day that the operation is kept free from fire. The bonus ceases immediately a fire occurs which gets beyond control.

We talked with a number of the employees and found the keenest possible spirit existing in the matter of Fire Prevention.

The Assistant Ranger in whose district this operation is situated visits it daily, and he states that although the crew numbers well over three hundred he has yet to see an employee smoking in the woods!

ONE CORD OF WOOD PRINTS 96,000 PAGES - "In response to an enquiry 'How much wood does it take to make a 24-page newspaper' Mr. W.G. MacNaughtan, Secretary of the Technical Association of the Pulp and Paper Industry, offers the following -

"One ton of newsprint contains roughly 1,500 pounds of mechanical wood pulp, which in turn represents $5/6$ cord of rough spruce wood, together with 500 pounds of sulphite (chemical wood pulp) representing $1/2$ cord of spruce wood. One ton of newsprint, therefore, represents $5/6$ plus $1/2$ or $1-1/3$ cords of wood.

"The NEW YORK TIMES weighs approximately 6 oz. to 24 pages.

1 pound of newsprint	=	64 pages of the NEW YORK TIMES.
2,000 pounds (1 ton)	=	128,000 pages.
$1-1/3$ cords of wood	=	128,000 pages.
1 cord = 96,000 pages	=	4,000 copies of 24-page papers such as the NEW YORK TIMES.

"This is a fairly close approximation, and about as near as can be calculated for the average conditions."

(Pulp and Paper Magazine of Canada)

Be wise today that you may be whole tomorrow.

Never step over one duty to perform another; take the nearest one first.

IMPRESSIONS OF THE BRITISH EMPIRE FORESTRY CONFERENCE

P. Z. Caverhill

From the four quarters of the globe, wherever the British flag is known, be it Mother Country, Dominion or Colony, from the North, from the South, from the far East and the West, the delegates have come together.

Each has his own forestry problem, be it the reforestation of denuded areas, where forests are so valuable that every tree is known and cultivated, or the well-organised forests of India, or the vaster areas of Canada, still in the exploitation stage and where the kindly generosity of Nature is only equalled by the extravagance of man in the use of her gifts.

But what is The British Empire Forestry Conference? Why have they come together? What are the objects? These questions are heard from every quarter. It has been my privilege to join the delegates in their conference and to accompany them on their travels through Canada, and perhaps some of the impressions I have gathered will help in answering these questions.

An indifference towards the Forest as a crop is characteristic of the Anglo-Saxon race - an indifference inbred through generations of expansion and colonization, in which new contracts were being made with virgin supplies of timber and new difficulties presented in clearing land for the production of food crops. This has led to their looking on the Forest as a mine to be exploited, and when exploitation is completed to moving on to the next region.

The Foresters - these delegates - recognise the Forest as a crop; that in order to avoid economic waste, land must be maintained in a productive state; and that the large percentage of our area incapable of tillage should be kept in the only crop it is capable of producing, namely, Forests. They recognise that the future welfare of the Empire is dependent on an adequate supply of wood products; that the virgin supplies already are distinctly limited; and that there are now no new unexplored regions to move on to.

The Conference, then, has met to discuss what steps can be taken to ensure these objects, and from that basis they approach the various questions presented:

(1st) Those of Empire-wide application

(2nd) Particular questions pertaining to the countries visited.

(3rd) Questions applicable to other sections of the Empire.

These discussions may not - will not - immediately produce a panacea for our forest ills; they will not clothe our

denuded hillsides with sturdy reproduction, nor stop our brush fir but the experiences of one section may offer a suggestion which can be taken and remoulded to fit new conditions, and used to advance our work.

The meeting together of men working under different conditions but still with common aims, will stimulate and broaden the vision. The conference has been a focal point, drawing the public to a consideration of forestry. Today, many are discussing this question who but for the Forestry Conference would still be going their daily rounds without a thought to their wood requirements. This awakening of the Forestry conscience is one of the problems confronting Foresters today, since in a democratic country no work can advance faster than public opinion will support it.

From the standpoint of the country visited, the various members of the Forestry Conference have seen the conditions with which we have to contend, and with minds fresh and unbiassed by any local considerations are able to make suggestions of incalculable value in developing a Forest policy.

Not the least noticeable impression is the essentially human one - how human the delegates are, in work or play, and how closely we are bound together by the common bond of a common aim and common calling. This has made for the cementing of friendships which cannot but endure, and aid in the solution of future problems.

To me the Conference has been a great experience and wonderfully worth while.

"BEAR IN MIND." - A day or two ago, commenting on our Windshield stickers, a friend of ours (who does not belong to the Forest Branch, but who takes a very keen and highly practical interest in the Branch's activities) made this remark:

"I notice that quite a number of foreign cars do not display your windshield sticker, and I believe I know why. When one comes to think of it, windshield stickers are prized by the motor tourist as indicating the extent of his tour and the number of places he has visited. Now, if BRITISH COLUMBIA was given more prominence on your sticker, I feel sure it would be displayed by every car that visits the Province."

He might be right, at that !

We would welcome a general expression of opinion on the point.

APPLIED PSYCHOLOGY

"On Sunday, July 29th, I had a fire on the Nicola Mammett Reserve," writes Ranger Little (Merritt), "and turned all the Indians out to fight it. After the fire was under control, it struck me that the Volunteer Fire Warden system could be used to good advantage on the Reserve. Finding Chief Tom Peter disposed to be talkative, I explained our system of Volunteer Fire Wardens to him. He was considerably impressed with the idea of having a "BIG FIRE CHIEF" of their own to muster the Indians to fight fire. His opinion was that the "Big Fire Chief" would know all the Indians on the Reserve and where to find them, and in this way the burden of fighting fires would fall not on a few but on them all.

"Chief Tom Peter then appointed his man (one Couie Charlie) to be IT. I told him what his duties were, and to come in the next day to receive his badge of authority; and on Monday I presented him with one of our Volunteer Fire Warden badges.

"The Chief's choice was an excellent one. Couie Charlie speaks good English and, though young, seems to have a good knowledge of fire-fighting. He is man credited by the other Indians with superior knowledge, and they seem quite to approve of the selection.

"I expect good results from this; if it proves satisfactory, the same thing can be done on the other Reserves. In my opinion, this is the only way to overcome the fire hazard of the Indian Reserves.

"The matter has been discussed with the Provincial Constable and the Government Agent, who share my opinion. Both agree that the presentation of a badge was not enough to impress the Indian, that he must be sworn in to protect the Reserve from all forest fires. Mr. L. Graves, Chief of Police, composed an oath - which lacked nothing in the way of impressiveness - and the Indian held up his right hand and swore to protect the forest of His Majesty the King on the Nicola Mammette Reserve. His chest expanded a full six inches when the badge was pinned on him! Provincial Constable Badman reports that no Indian dare light a match near the bush now, or the "BIG FIRE CHIEF" will have him pinched!"

FLEET IN FINE FETTER - The Forest Branch launches operating out of Thurston Bay look resplendent in their new and serviceable coats of paint; in fact, we have never seen the "COTTONWOOD", "KIORA", "ALANBEE" and other boats looking better. The skippers are all very proud of their commands, and we commend them very heartily for the keen practical interest displayed in their launches and equipment.

We hear from some of the old-timers in the Service that the present day launches are a considerable improvement on the Three Mouse Power type which they used in '84 in Malaspina Strait!

SILVICULTURE AND SLASH

G.P. Melrose

The most important consideration in administering a timber sale is the protection and encouragement of reproduction. All Forest management aims at the perpetuation of the forest cover on every available acre of forest soil. The methods of logging and brush disposal on timber sale areas are, therefore, of prime importance in so far as they affect the reproduction. In this short article I would like to point out some of the important points concerning brush disposal and its effect on reproduction, giving the ideas that have been put forward from various quarters on the subject. I want also to voice a plea for consideration of brush disposal along silvicultural lines, for, as the late Dr FERNOW stated in his volume on "Economics of Forestry," "...the main business of the forester is expressed in the one word 'reproduction' his main obligation is the replacement of the crop he has harvested, whether produced by unaided Nature or otherwise, by as good if not a better crop of timber than he found."

Ingrained in our natures we find a dread of slash areas. It is as deep-rooted as the fear of perdition and the hope of salvation! This dread has its origin in the undeniable fact that slash areas have been prolific sources of disastrous fires; fires start there more easily on account of the fine inflammable material; they burn hotter and gain more headway for the same reason and are harder to fight. Therefore, our slogan has been "BURN THE SLASH UNDER CONTROL LEST IT BURN LATER OUT OF CONTROL!" It has even been argued by such learned authorities as Dr J.V. HOFFMAN of the U.S. Forest Service, that controlled broadcast burning of slash in the Douglas Fir belt promotes reproduction of the most desirable species.

Of late considerable doubt has been cast upon the slash burning theory. It would almost seem that the pendulum was swinging pretty much the other way and that all slash burning would soon be condemned. Will it be considered in the same category as the "Light burning" theory - all right so far as it went, but it did not go far enough to work out the problem to its final conclusion?

Dr. HOFFMAN's idea was that a controlled burn, while the duff was damp, opened up the soil to the sun, destroyed the top layers of duff in which the preponderance of stored seeds were of the light-seeded less desirable species, such as Hemlock, and exposed the lower layers in which were the heavy, more desirable Douglas Fir seeds. The result would be largely Douglas Fir reproduction. The theory was also advanced that reproduction under or on the slash was not so good as where the slash is removed.

We have advices from the Vancouver district, where Alexander is working on this problem, to the effect that the broadcast burning of slash cannot be defended from the silvicultural standpoint. The claim is made that reproduction is better

among the slash than where it is burned; the advance reproduction is not destroyed and soil conditions are improved. Considerable doubt is also cast upon the efficacy of broadcast burning as a fire prevention measure. It is pointed out that the slash is not entirely destroyed and subsequent fires very often occur, destroying the reproduction that has had a start.

If the above is correct, are we not barking up the wrong tree when we insist so strongly on the burning of slash? Are we not forgetting our main business as foresters in the over-shadowing fear of the slash area?

Back in JULY, 1914, Elers KOCH put forward an idea in the Proceedings of the Society of American Foresters, to the effect that the cost of slash disposal was away out of proportion. He pointed out that at a cost of fifty cents per thousand, it often ran to Ten Dollars an acre or more. Would it not, therefore, be better to increase the patrol expenditure even several hundred per cent. for the slashed areas and save money? The theory deserves a lot of thought.

To get away from the Coast. In a recent report on the slash disposal problem in the White Pine forests of Idaho, LARSEN and LOWDERMILK figure the same way as Koch. They lay particular stress on the disposal of slash for silvicultural reasons, and point out the high cost of the operation. Broadcast burning is condemned; piling and burning is shown to be damaging to a lesser extent, but the best method to employ where it is necessary to reduce the fire hazard. Koch thinks, however, that other methods such as clearing fire-lines along skid roads, or extra patrol, will often secure the same results at less cost - at the same time, doing away with the loss to advance reproduction of seed in the soil and of the protection afforded to the ground. In Yellow Pine we are told that burning the slash is detrimental to the reproduction of pine. Alexander's studies of 1922 show pretty conclusively that where the slash is burned in our mixed Yellow Pine - Douglas Fir stands the resulting reproduction is largely Fir, while it is mainly Pine where not burned.

As our prime function as foresters is the reproduction of the forests, we must carefully consider the methods of slash disposal which we require on timber sales. Without losing sight of the importance of reducing the fire hazard, the silvicultural aspect must be given full weight.

Authentic information is lacking on the effect of various systems of slash disposal in B.C. with the exception of the types covered by Alexander in his intensive studies. Can we secure some discussion on this subject, based on observations of concrete cases covering the various types in the Province? How about the Lodgepole Pine-Spruce stands being cut for ties? The Interior Wet Belt being cut for poles and sawlogs? The Interior Douglas Fir type being cut for ties and sawlogs? The Northern Spruce and North Coast Hemlock Spruce types being cut for sawlogs and pulp? What are the results silviculturally of our slash disposal methods?

The time has long been here for a most careful consideration of this problem. Let us get at it now and show the results in our timber sales.

ACTIVITIES AT THURSTON BAY - A considerable number of improvements have been carried out at Thurston Bay during the past few months, including the installation of fuel tanks, new floats and side walks, and the construction of a large warehouse for the housing of marine stores and the fire-fighting equipment of the Thurston Bay Supervisor District.

As a result of putting in the new fuel tanks, launches are now able to fuel in a few minutes where under previous conditions it often took over an hour.

Extensive improvements are being made to the ways and improvement plans also include the painting of the Station buildings. With the completion of these improvements, Thurston Bay will present quite a smart appearance.

The materials are now being assembled for the construction of the New Headquarters launch 'FORESTER', and it is hoped to have the keel laid within the next few weeks. Construction has been delayed by the above-mentioned improvements to the Station being carried out this summer.

The Forest Branch fleet has troubled Thurston Bay comparatively seldom since the commencement of the fire season, only one launch reporting minor repairs. The deserted ways and side walks constitute a very pleasing sight and are certainly a tribute to the way in which the boats were overhauled at the Station last winter.

INTRODUCING "SPARK-PLUG." Attention is drawn to a new feature in this month's issue of "ROOT & BRANCH"; we refer to the page of Personal Pars, contributed by "Spark-Plug." For reasons which are sufficiently obvious, this contributor prefers to conceal his identity for the nonce. We can only hope that he does not hoist himself on his own petard, so to speak, by betraying a too-intimate knowledge of our goings-on!

In our opinion, the average Sunday Supplement constitutes a strong argument against Forest Protection. 'Twere better far that trees should burn!

RANGE BURNING

T.P. MacKenzie,

The Resolution passed by the Upper North Thompson Stock Breeders' Association endorsing the fire prevention policy of the Forest Branch is a distinct step in advance. In view of the 'Range burning' Controversy which has lately been raging throughout the Dominion Belt this resolution is very opportune and speaks well for the diplomatic and tactful attitude and efforts of our field men, in their dealings with the Ranchers in combatting the tendency to burn and destroy the forests.

It is to be hoped that the Association in other communities will soon follow suit.

Range burning investigations on Provincial ranges point to the following facts,-

It is not necessary to burn to create range. There is more than ample for all, if it is used properly. Therefore, it will injure nobody to wait patiently for definite information regarding the effect of fires which have already occurred.

Jackpine on the ranges is supposed by Stockmen to have no commercial value. During 1919-20 \$308,000 worth of this 'valueless' timber was sold off the Cariboo-Lillooet plateau for ties and bridge timber alone! Timber unmerchantable today may easily be merchantable tomorrow in British Columbia.

Pinegrass, pollen from Jackpine, and humic acid in the soil does not injure cattle. What injures them is a lack of salt in their ration. Therefore, burning range and timber to prevent sickness in cattle is useless.

Pinegrass grows luxuriantly for two years after fire; during that period it is bitter and not palatable. Stock do not relish it for two years after a fire. This is helpful, because it is a shallow-rooted grass and easily pulled up.

Repeated fires destroy soil fertility, besides encouraging denser growths of undesirable species.

Absolute protection from fire produces matured stands with open grazing - the ideal grazing condition.

At the Annual Meeting of the B.C. Stock Breeders' Association held in Vancouver, resolutions were unanimously adopted: requesting an amendment to the present bull law, to require that only registered bulls be allowed on the open ranges, and that all cattle shipped for slaughter be first dehorned. These are two distinct steps in the advancement of the B.C. range cattle interests.

UNIFORMS

(R.C.St Clair)

From time to time suggestions have been made by field officers that the Service should adopt a standard uniform and that its wearing should be made compulsory by all forest officers. The question so far as I know has never received serious consideration and as it is not one vital to the policy of the Branch, it is unnecessary for any of us to lose valuable sleep worrying about it. It occurs to me that there may be good reason to open the discussion with the hope that if there is any real demand for uniforms that the subject will be further followed up by others through Root & Branch.

The arguments for a standard dress for forest officers are based pretty much on the argument that it makes the recognition of the wearer easier on the part of the public. This, particularly in the case of the travelling public is advantageous. It is also pointed out that the wearer of a uniform is distinguished as the member of a certain organization carrying definite responsibilities and authority and his instructions and orders carry more weight. Witness the R.N.W.M.P. This would apply in calling men out to fight fire. It has been suggested that insignia showing rank and length of service might be worn. I think we all recognize and respect the five year bars on a trainmans sleeve. When a railway conductor has five or six bars, the traveling public is quick to think that in his 25 or 30 years experience he must have met and handled many problems and emergencies and his opinion and advice on matters pertaining to his occupation are valued. If a uniform will make the work of a Forest Officer easier and will increase his efficiency, lets have 'em.

On the other hand there are obvious problems which must be considered. In the first place who is going to pay for them? Are they to be furnished by the Government as part of every officers compensation or is each person to buy his own? It is argued that 100 people purchasing from one firm can get standard clothing cheaper than is the ordinary yearly cost to each of us at present. I think we would all favor having the uniforms furnished, or at least having some, perhaps a conservative, clothing allowance. If the Government, however, will not look with favor on the question of furnishing uniforms to Provincial Police, it seems doubtful if they would consider it for us. A further difficulty is found when the style and suitability is considered. An officer on the Northern Coast does not wear the same clothes as one in a Cariboo Grazing District, and a man at a desk can wear any kind of clothes without more serious inconvenience than making himself conspicuous. Clothing must be suitable for the work which is being performed, and for each locality long experience has indicated a garb, which best suits the purpose.

Personally I am strong for a uniform, or rather uniforms, for I believe we should have several to meet different conditions and different seasons. I believe we should standardize so far

as color and trimmings (buttons, etc) are concerned, but give a choice when it comes to weight of cloth, combination of garments and even cut and style. The man who wants to wear a 'Stag' shirt and work pants should be provided for as well as the one who favours riding breeches and leather puttees. Personally, I favour a small clothing allowance, and would suggest \$4.00 a month or (say) \$50.00 a year. For the permanent staff this would amount to \$4,000 a year.

I believe one of our objects as an organization is to get Forestry before the people and while no one wants to be a sandwich man - a walking advertisement - I do believe that the results would justify the cost.

Now, if anyone else has any beliefs, let's hear from you. The only way to get results in such matters is to follow them up, otherwise the subject dies a natural death. By the noise created we will know whether there is any demand by the field men along this line.

"FIRE PREVENTION IS SWEDEN'S AIM - Stockholm, Aug. 18 - The \$2,000,00 cigarette" is one of the main arguments advanced in the campaign launched by the Fire Prevention Society of Sweden to prevent fires caused by the careless throwing away of cigarettes. A lighted cigarette thrown down by a youth in a sawmill started a fire which was not extinguished until \$2,000,000 worth of property had been destroyed. Other large fires have started in the same way.

The Fire Prevention Society suggested to the Swedish tobacco monopoly, which controls the output of cigarettes in Sweden, to print the warning "KILL YOUR CIGARETTE WHEN YOU HAVE DONE WITH IT" on every package, and the executives of the company immediately agreed to adopt the suggestion."

... ..

In sending us this newspaper cutting, Ranger J. Thompson (Vancouver) suggests - "Can it be taken a step further, and enlist the match manufacturers. I feel sure if the combined efforts of all the Provincial and Dominion Forestry bodies were brought to bear on the Imperial Tobacco and Match companies. they would drop into line with the Swedish company."

Incidentally, we might say that action along these lines has already been taken through the Canadian Forestry Association.

OPEN BURNERS

The question of what constitutes an efficient open mill burner is one that should be of interest to all field men. We would like to have some articles on the subject; those men who have had experience with open burners should have no difficulty in submitting useful data on the subject.

The question of cost is, of course, very important and should be carefully dealt with in considering material and construction. It is also necessary to cover the Fire Preventative and Fire Fighting appliances which must accompany any plans for an open burner.

Another matter of importance is the size of burner for mills of different capacity. A further point which has given rise to much discussion is the question of water supply. In most cases, the water supply is controlled by the central steam pump located in the boiler room. In view of the fact that this is usually the first item of equipment to suffer in case of fire, it would appear to be advisable to have an auxiliary or gasoline pump located outside the mill. The necessity of destroying slash and felling snags within two hundred feet of the burner is obvious.

The following article on one type of burner and protective appliances is published as likely to be conducive to further discussion of this matter.

"Many slab fires are improperly located in that the prevailing winds carry the spark toward manufacturing divisions. Since the construction of the mill rarely permits the changing of the slab pit location, the only course left is to instal practical safeguards.

"(1) - A brick base, six feet in height and encircling one half of the pit, should be located on the mill side. A wire netting at least fourteen feet in height should be firmly braced on top of the wall. In no event should a solid wall be constructed on the mill side as the air currents tend to draw the sparks over the guard.

"(2) - All slab pits should be equipped with two steam blowers to cause quick combustion of refuse and to assist the ash pile reduction.

"(3) - An inch water pipe, with spray connection, should be extended along slab conveyor to keep the premises at guard moist, and a hydrant should be located sufficiently near the pit to be available for emergency use. Hose and coupling appurtenances should of course be kept within quick reach.

"(4) - At the first appearance of dangerously strong wind, the hose should immediately be gotten into action, and heavy streams played continuously on the fire, beating it down and preventing the escape of sparks and brands. Extinguishment or partial extinguishment at least of the slab fire is a very sure way to prevent its becoming an incendiary.

"(5) - During the high wind periods, an extra watchman should be placed at the fire, patrolling the immediate premises and the exposed sections of the manufacturing divisions. If the plant is spread out over a considerable area, more than one man will be needed in addition to the regular watchman.

"Other necessary precautions. The netting in refuse burn should be frequently inspected, quick repairs made when defective, and during high wind periods the draft doors should be closed. Boiler and locomotive stacks should be equipped with spark arresters.

"Decaying timbers are a frequent lodging place for sparks. It is most usual for a fire to start in buildings in poor repair. The average citizen only hears of the heavy losses, but it is not unusual for an inspector to be told on his visit to the plant that a small fire was recently discovered and extinguished. Investigation discloses that the fire, presumably of spark origin, found its start in a rotten or decayed timber.

"Metal-clad sides should be nailed tight to their frames, and all openings on exposed sides should be closed. Roofs and walls should be kept in good repair, unnecessary openings boarded up permanently and where panes of glass in windows have been broken they should be replaced or the windows screened.

"It is important that rotting tramways and platforms adjacent to loading tracks be renewed and the interiors of sheds and platforms kept free from light and combustible litter."

... ..

(We are sorry that we cannot recall the name of the publication in which the foregoing article appeared, but we were considerably impressed by it at the time and made the extracts which are quoted here. If this should come to the notice of that publication, we trust they will accept this explanation of the omission of the acknowledgement which ordinary courtesy demands. Editor.)

FIRST AID KITS MEET WITH APPROVAL - "Just a word of appreciation for the first aid kits issued to field men recently," writes Ranger J.B. Willock (N. Vancouver). "The contents of the small bags are just as compact as they are useful; and at least one field man has reason to be grateful that they were issued."

IMPROVEMENTS

(C. S. Cowan)

One of the annual worries which fall to the lot of the Forest Ranger each year is that which falls broadly under the head of 'Improvements'. For the past few years the Victoria Office has been with the field in the spirit only, for there has been that dreadful bogey called DEFICIT hanging over our heads since 1919. But this year, by the grace of favourable weather and keen field **work**, we are now back on the straight and heading for the end of the Fire Season with a bit in hand!

We are going to sanction Improvements this year so far as our funds will allow; but as there must be system in all things I would like the following points to be kept well in mind.

Where new trails are to be constructed, please show exactly where the proposed trail starts; being duly tied into some recognised corner post. Show also the ultimate object of the trail so that we may know what part of the trail system it will eventually form part of. It may be that is only intended to build (say) five miles of a trail which will possibly in time extend for thirty miles. But in all cases a sketch must accompany the request for an allotment before the money will be granted for such improvements for it stands to reason (and there must be reason in this matter of expenditures) that we cannot grant money for haphazard projects.

A traverse, even a rough traverse, should be made of all trails, and when the project is in the making a reconnaissance should be made of the country ahead.

Other projects, such as Camping Places, will probably occupy a good deal of attention, on the part of those who are in the Tourist Zone. There are one or two little points which have occurred to me lately in regard to improvements of this nature. For instance, it seems possible that we have not yet planned to allow for the fact that man is a gregarious animal and likes the company of his fellows. Do we, when we take advantage of a shady spot for a camping ground where water is readily available, plan for expansion beyond the limit of one car or one party? Certainly, we have not been able to allow a very free financial rein since Camping sites began to come under consideration but Planning, at least, is cheap.

Touring parties are becoming more and more the vogue, and therefore we must plan to accomodate the people, if we are to get our ideas across.

In regard to Camping places, we are calling for tenders for the construction of a number of knock-down fireplaces, which may be adopted as standard provided the price and shipping weight is within reason. If this scheme is successful, we shall be in a position to ship to the various districts a number of these k.d. fire places for distribution and erection.

Then there is the little matter of Look-outs. Where these are contemplated serious consideration must be given to the extent of country that the proposed lookout will cover, the possibility of its being used in connection with another lookout with a view to getting a 'cross shot' or intersection on a fire, the availability of water during the summer months, ease of transport of supplies to the lookout man, pasturage for his horse if one is thought necessary, distance from a trunk line telephone, estimate of cost of construction of both cabin and telephone, and yearly maintenance charges.

The latter point should always be kept in mind; every project we undertake becomes an annual drain on our income, which is fixed, and therefore money for improvements should only be expended after very serious consideration has been given to this side of the question.

There is little room for doubt that we are lacking in the improvements necessary in order to protect a country of the magnitude of British Columbia, but because of that very fact it is even more necessary to make sure that the expenditure recommended come as near to giving 100 cents to the dollar as is humanly possible.

It must be borne in mind, therefore, that we must work on a systematic plan. Trails should not be laid out in a haphazard manner but wherever possible should be part of a plan. It is true that a large number of valleys are more or less "pockets" or cul-de-sacs and therefore will be what railroad men term 'feeders', but the main trail should always be kept in view.

When lookouts are planned, keep in mind the standard look-out house and, if the construction of such a building should be impracticable, the erection of a lookout tower.

Camping places should be planned where a day's journey will be broken, where shade is at hand as well as fuel and water. Fire-places are not the only features of a camping ground, but refuse pits and other convenience help to make a stay at any particular spot a more pleasant memory. The more we do for the comfort of the Auto Tourist, the more reasonable it is to suppose that he will be in a receptive mood to assimilate the lessons we are trying to put across. These points have doubtless occurred to you and have received consideration.

I have been taken to task for my use of the phrases "energetic ignorance" in one of my articles in 'ROOT AND BRANCH', and have been asked to explain exactly what was meant - in other words, what was I talking about? What I had in mind was the expenditure of a vast amount of physical and the veriest modicum of mental energy in the doing of any particular thing. It can often be applied - this perhaps ill-chosen phrase - for of its truth there can be little doubt. Occasionally we come across a proposition which shows but little sign of thought behind it, but which has evidently entailed the expenditure of a great deal of physical effort. Don't get into that class.

We are hoping to catch up somewhat on our long-delayed scheme of necessary building, trails, etc., so get busy, line up your work and put it up to your District Forester. Who knows but what your pet project may be approved this year!! The better shape the plan is in, the more thought that is applied to showing the need for its completion, the estimating of cost and maintenance and the benefits that are expected to accrue, the greater the probability of the funds being allotted.

SIGNS OF THE TIMES - Due to the combination of religious fervour by a visiting evangelist and the zeal of a member of our field staff, each in the furtherance of his individual cause, the Posters along the Island Highway offer some startling advice. From the signs on one tree we gather the warning "PREPARE TO MEET THY GOD!" and below "PUT YOUR FIRE OUT," emphasising the great relationship between our heavenly hopes and our great duty on this mortal coil. But the most drastic threat was conveyed in the next combination, which read - "THE WAGES OF SIN IS DEATH" - PUT YOUR FIRE OUT."

This possibly explains the feeling of awe with which the Service is regarded by some of our touring American cousins.

T. H. Ainsworth.

WHY WASN'T SHE ARRESTED? - "The other day, while at the C.P.R. Wharf at Nanaimo," writes T.H. Wilkinson, "I saw a lady tourist from Los Angeles step off the gangplank with one of our 'BEAR IN MIND' Stickers stuck on the calf of her leg - she had high boots on. The question that arises is - Just where did the hazard come in?"

"If you doubt my veracity," Wilkie adds, with his usual forethought, "I can refer you to other witnesses of irreproachable character, to wit, Messrs Stuart and Flumerfelt."

In our opinion, the lady should have been arrested - for Bootlegging.

WHAT EVERY YOUNG GIRL SHOULD KNOW ---- LESS !!

THE FORUM

T.G. Martin (Smithers) puts in a word on behalf of the Handspeeder.

"There seems to be no other member of our family that is treated with such scant respect as the velocipede. In fact I will even venture to say that if the velocipedes in the service were the property of the men who use them they would last twice as long, which is only meant to show that better care could be taken of them. Even if it entailed some extra expense, would it not be money well spent if someone qualified to speak on the subject gave a little instruction to those using a handspeeder for the first time?"

"I have never met any two members of the Branch who were agreed as to the best way to line up a speeder to give the best results with the least wear to the machine itself; but I have seen a front wheel, new on the first of May, off which the flange had been completely worn by the first of August! This was only due to improper lining-up of the front and back wheels. The first year that I used a speeder I wore the flange through on the front wheel, though it was by no means a new machine, but the experience caused me to give considerable attention to the manner of lining up my wheels, and I found that the best results were obtained by turning the front wheel over so slightly in to the rail, and the back wheel sufficiently out from the rail for the machine to run backwards without running off the track.

"I have also heard numbers of handspeeders that began to squeak quite audibly before the season was over, but I have yet to meet the Asst. Ranger or Patrolman who knows that there is a little hole for oil on the axle of the second gear wheel. This hole is very hard to see and even harder to get at, but I believe that not oiling this part causes considerable wear and tear on the whole mechanism."

An interchange of ideas on this subject would be very welcome, and almost certainly beneficial.

... ..

Final Fire Reports sometimes carry a recommendation to the effect that, "as a large per-centage of fires are caused by lighted cigarette stubs, all cars to be compelled to carry closed ash trays.

This is a question which has been discussed quite frequently, and we shall be glad to hear from anyone who has a definite scheme in mind.

... ..

"When one reads the recapitulation of the Thurston Bay, Nelson and Prince George Ranger Conventions," writes Ranger Carey (Vancouver) "it is gratifying to reflect that a good many of the resolutions have been adopted, which goes to prove that the Ranger has still some grey matter left! Now, Mr. Editor, although not with the idea of criticising the contents of your last issue, I would dearly like to know for what reason the names of the Committee

were withheld from the 'Public Education in Forest Protection,' for this, to me at last, has surely caused a flutter this season. I don't wish to infer that the different resolutions contained therein have not been thought out and even recommended long ago, but the fact remains that the resolutions contained therein have actually been carried out, even to the Canvas Signs. Now, Mr. Editor, the point I wish to emphasise is that all the resolutions were signed, while the one dealing with that very important phase of our work - "Public Education in Forest Protection" - was allowed to be published unsigned; and, being one of those hardboiled Rangers I consider the names of the Committee should have been inserted."

We are cordially in agreement with Ranger Carey, but unfortunately on our copy of the resolution to which he refers the names of the Committee were omitted. That is an omission which we shall be delighted to remedy if the information can be given us.

... ..

Warm appreciation is expressed by R.V. Stuart of C.S. Cowan's article in the June number of "ROOT & BRANCH" on the value of the Fire Organization plans. "Articles such as this," he writes, "are extremely valuable and this one seems to me to be particularly well timed. But the statement by the writer that organization plans are apt to be regarded as a "sop" to the theorists will surely find few supporters among the field men. This article has undoubtedly caused everyone in the preparation of fire organization plans to do a lot of hard thinking, and if I am not greatly mistaken will result in more thoroughness in the preparation of these plans. It is welcome news that the information which is being compiled on the maps on the back of the fire organization chart is to be embodied on a new set of maps to be reissued in conjunction with future fire organization plans. Is it the intention to get out a special legend for these maps?"

The article referred to by Mr Stuart reads - "The fact that this distrust of theory is held by even one or two men in the service is sufficient to prove that the making of an organization chart on their part has been purely mechanical." The italics are ours. "I must stick to my guns," says Mr. Cowan, "for I wrote that article immediately after having come across at least two instances of this very thing. I certainly agree that the vast majority of our field men realise that the charts are of real value. It is the intention shortly to call in these charts with a view to making white prints of them."

... ..

By the way, "Fire Protection" is not quite the happiest phrase to use in connection with our work. "Fire Prevention" is really our object!

.....

Mr Ainsworth's 'Juvenile Forest Protection League' has a warm supporter in Ranger Carey. "Let me through 'ROOT & BRANCH' congratulate Mr Ainsworth on his splendid article, on which I

would like to comment. It is rather like an idea I had in mind a short time ago, and when I placed it before a prominent officer of the Branch, he exclaimed - "Yes, that's all right - but can you put it over?" "No" I said, "not individually, but collectively, yes." And that is the way I feel about Mr Ainsworth's scheme. Collectively we can put the idea over.

"Do you notice the change that has come over the public in the last few years in their attitude towards Forest Protection? In 1918 I found myself with miles of fires on my hands, and the general public seemed actually to make light of the fact that our Forest Wealth was being destroyed; they would run out in their cars to the best vantage ground just to enjoy the spectacle of a Forest Fire. But today, things are noticeably different, and the average citizen is moving with the times - he will not tolerate this fire menace, and while we still have our quota of careless people, the average man and woman is now alive to the fact that fires drive away our population, and that they are job-killers and all that sort of thing. The idea of such a scheme as Mr Ainsworth's would not leave to the old haphazard way of putting the idea into circulation, but would make it a part of the kiddie's regular curriculum - in other words, it would be just like teaching them to say their prayers, or teaching them to distinguish right from wrong, and would be building up their characters into the bargain."

MORE "SAYINGS OF THE GREAT AND NEAR GREAT"

Our readers are reminded that our offer still holds good of a prize of Ten Thousand Marks (or call it five cents, for convenience sake) for the highest score in our Grand Guessing Competition - "Wise Cracks - Who Made Them?" It is true that the response to date has not been alarming, but as we remarked before, one unsuccessful attempt does not constitute a failure any more than one swallow makes a jag.

- (1) - "Well, whatta yuh got?"
- (2) - "Bathing houses! BATHING houses!!"
- (3) - "I found three raisins....."
- (4) - "Launches all the way from three mouse power up."
- (5) - "When we do meet, we meet awful sudden!"
- (6) - "Middle of JUNE, boys, middle of JUNE!"
- (7) - "That's just a snare and a delusion."

THAT FOREIGN CURRENCY!

Barnum - "That's a fine elephant you've got, Bailey.
Where d' you get him?"
Bailey - "Over in Petrograd."
Barnum - "How much?"
Bailey - "Six bits."

THE QUESTION BOX

"Where does the braking power of an automobile engine come from?"

This question appeared in the APRIL number, when we asked Mech. Inspector Blake what he had to say about it. Apparently he has lots to say!

"In the first place, I asked the question and Mr Editor tumbled into the trap when he states that 'Our correspondent is in error when he says that the return stroke gives back the energy.'"

"The term 'running on compression' although generally used, is a misnomer as may readily be seen. At the end on the intake stroke the cylinder has its greatest capacity and contains a certain amount of air. At the end of the compression stroke it contains the same amount of air but in a fraction of the original space; the air has been compressed in a definite ratio and work (or energy) has been expended in this compression. Then the piston recedes again, making what would be the power or explosion stroke if there were any spark, and the result of this dead return stroke is to relieve the air in the cylinder of its compression. Now, it should be clear that all the energy spent in compression is returned during the dead stroke, by the pressure of the expanding air against the descending piston.

"To quote from my original question - 'The compression stroke takes energy from the car and the return stroke gives it back; the result of the two strokes is Zero. How then does the engine act as a brake?'"

"There is only one possible answer. On the intake and exhaust strokes, the engine pumps a volume of air through the intake, into and out of the cylinders through the exhaust. It is the energy absorbed by this pumping that provides the braking. We have nothing to offset this; the air has to be pumped in and it has to be pumped out again.

"However, there is still room for fallacy. I might state that there is no advantage in opening the throttle while braking in this way, and have had demonstrated by others in questioning this that the sequence of cause and effect involved is not a simple one. The fact that the compression is offset by the return stroke has been overlooked by some. Of course, it would be true that the more air admitted through a wider throttle, the more work the engine would have to do - provided the one stroke did not counteract the other.

"Others again, who avoided this pitfall, still maintained that on the intake and exhaust strokes no work was done. With the piston open to the air on both sides - through the valves above the breather below - the argument was put up that there was atmospheric pressure on both sides of the piston and that it moved without doing any work except to overcome the resistance of the bearings. Many of you who take this point of view are exercised to imagine where the powerful braking action of the engines comes from, and to decide whether it can be due entirely to internal friction.

"The cycle of events of the intake and exhaust valves is very interesting, but we will have to defer discussion of it until next month. In the meantime, some of you may be interested in figuring it out and comparing results with the foregoing. Try it,

on the longest and steepest hill in your district, to find the proper place to set your throttle when using a dead engine as a brake, to get the best braking results."

The advisability or otherwise, of using stop valves on the discharge side of Forest Fire-fighting Pumps, has been under discussion of late.

"It is my personal opinion," says Mr Blake, "that these valves are not necessary. A foot valve on the suction hose is provided for the express purpose of preventing the water from running back and emptying the discharge hose when the engine is stopped and, if in good condition, it performs that function quite satisfactorily; furthermore, if the gears and housing of the pump are not too much worn, this will also act as a valve (although there might be a slight leakage past this point).

"The greatest leakage is by the cooling or circulating water pipe, which however is provided with a tap for shutting off or regulating the supply to the cylinder.

"The application of a third valve seems to me like building a bridge to carry a certain load, and then building another one to carry the original bridge! The most serious objection to this third valve is the fact that it is a screw-down valve and must be opened and shut by hand, and here the human element is introduced. Would it not be better to use an automatic or swing check valve (sometimes called a "non-return" valve) such as is used on a boiler feed pump or injector? There are several reasons why this would be preferable - (1) Such a valve is automatic. (2) It is lighter. (3) It is less expensive.

"I maintain that the introduction of a stop valve on the discharge side of the pump is a source of danger, and more so when the pump is being handled by a man who is not thoroughly familiar with this type of equipment. When the engine is started up, the valve is very liable to be overlooked and left closed. The pressure in the pump chamber then rises to a dangerous degree, and will probably burst off the cover, either by breaking or stripping the threads off the cap screws securing the cover to the housing, thus disabling the pump. There is also the possibility of danger to the operator."

Inspector Blake has expressed himself very clearly on the point.

However, we are reluctant that such a promising discussion should perish in infancy, and would welcome the views of the field staff on this subject.

CONSTANT VIGILANCE THE PRICE OF SAFETY - Having passed the months of high fire hazard, it would be a constant reproach to our Service if we allowed the fact that September has now arrived to induce us to relax our vigilance. In September, as in any other month of the year, the only safe fire is the one that's DEAD.

PERSONAL PARS

Ranger J. M. Daniels resigned from the Service on July 21st to go into the timber cruising and brokerage business. He and C.L. Armstrong (formerly Junior Forester at Vancouver and later Assistant District Forester at Cranbrook) have formed partnership with Mr. E.P. Bremner, with offices in the Bank of Ottawa Building Vancouver.

On the occasion of his retirement from the service, Ranger Daniels was presented with a Surveyor's Compass by the members of the field staff of the Vancouver district.

The hearty good wishes of all members of the Forest Branch will follow Messrs Daniels and Armstrong in their new sphere of activity.

... ..

Asst. Ranger Benson sustained a broken wrist about two weeks ago, but in order to maintain the high standard of Protection efficiency which Ranger Mahood and he have established in the Fraser Valley this year, Benson declined to go on sick leave. An additional patrolman was engaged to drive Benson's car and he has managed to carry on in spite of his painful handicap.

... ..

Ranger J.B. Willcock has incapacitated also. While he and Asst. Ranger Bromley were cruising a timber sale on Howe Sound recently, a loose rock rolled down and fell on Willcock's right instep, causing injuries which resulted in an abscess, and which put him out of business temporarily.

... ..

Supervisors G.H. Smith (Thurston Bay) and H. Smith (Vancouver) are being congratulated on the confirmation of their appointments as Supervisors for their respective districts.

... ..

Scaler R.H. Chestnut has tendered his resignation - we understand, to join the staff of a private concern.

... ..

Patrolman Michael Andrews (Campbell River) proudly announces the arrival of a son - a husky youth, weighing eleven pounds.

... ..

The marriage of Ranger R. Little, Merritt, to Miss Jennie A. Wade of Merritt, took place on June 24th. We wish Ranger Little and his bride every joy and happiness - a sentiment in which his many friends in the Forest Service will heartily concur.

... ..

Ranger J.B. Willcock (N. Vancouver) sends us a snapshot of the new look-out tower at Lynn Valley. As nearly as we can estimate the tower is 20 ft. high, and it would appear to be admirably placed to command the surrounding country.

... ..

Ranger J.B.Scott (Prince Rupert) was injured last month while fighting a fire which is said to have started from a defective spark arrester. Later, this fire developed into a conflagration which came very near to destroying the plant and town of Buck Bay. Ranger Scott's injuries laid him up for a few days, but we are glad to note that he is now completely recovered.

....

G.J. Reading, Chief Clerk in the District Office at Prince Rupert, and Miss Betty Barrow (also of that city) launched their barque upon the sea of matrimony on August 25th. All hands join in wishing the Skipper and the Mate a happy and prosperous voyage.

As a token of esteem and good wishes, the District Staff presented Mr and Mrs Reading with a mahogany mantel clock.

....

We understand that Scaler E.S.Antle (Swanson Bay) is to be married in Vancouver in the course of the next few days. The heartiest good wishes of his friends and associates in the Service are extended to Mr and Mrs Antle.

"UP IN THE AIR." - "On Aug. 25th., through the courtesy of Flying Officer MacLeod," writes District Forester Bonney, "I was permitted to make a flight with him from Prince Rupert to Ocean Falls. The distance of approximately 175 miles was covered in two hours and fifty-five minutes. We flew at an elevation of about 2,500 ft. and followed the route via Ogden Channel, Principe Channel, Estevan Sound and Laredo Channel. No difficulties were encountered except a fog off the mouth of the Skeena, which made things a little unpleasant and uncertain for about twenty minutes. A flying boat of the H.S.2-L. type was used on this flight. This type is peculiarly suitable for reconnaissance work by photography on an oblique basis. We might have saved considerably on the reconnaissance on Graham Island this season, had it been possible to make a preliminary examination by Seaplane, operating for four or five days from Massett Inlet as a base.

"The Fire hazard throughout the district has practically ceased to exist," continues District Forester Bonney, "and we are hoping that our fire troubles are at an end for this year. To date, we have had a total of 172 fires, which have cost approximately \$4,400 to control. No disastrous conflagrations have occurred, and the aggregate loss has been small. There has been a marked change in the view point and spirit of the general public, and we in this District believe that our investment in Forest Protection propaganda has paid, and will continue to pay dividends."

DISTINCTLY PERSONAL PARS

(By "Spark-Plug")

Grey tweed suits are very fashionable on the Island this summer. Many motorists claim that dust and grease does not show on this fabric. In view of the fact that Grey tweed suits are reasonable in price, they make very acceptable gifts, especially among old friends.

... ..

Supervisor Flumerfelt reports that tacks, nails and 3-inch files are very plentiful on the Island Highway this summer.

... ..

Clarence and Lancelot Willoughby-de-Broke were visitors at "the River" over the week-end. Mr. Reginald Whattayagot gave a very enjoyable - and profitable - party on behalf of these guests.

... ..

It is understood that Supervisor C.H. Smith (known as 'Harold' among the inner circle of his friends) has developed quite a reputation among the fair sex as a fortune-teller.

... ..

Also that Ed. Hill is 'coming out this season' as a prophet. At least, rumour has it that he made a prediction at Rock Bay quite recently which startled all ranks.

... ..

It is believed that the "COTTONWOOD" can show the "ALANBEE" a clean pair of heels; however, we would prefer to hear from Ed. Hill before vouching for the truth of this statement.

... ..

Mr. Eric Sweatman, the popular Chief Engineer of the Launch "COTTONWOOD" narrowly escaped a court-martial a few weeks ago. It appears that an Inspecting Officer from HQ., during an inspection of the "COTTONWOOD" actually discovered, with the aid of a magnifying glass, a minute speck of dust on the 60-Lb Anchor. However, in view of the fact that the launch has now been in commission for one year with Mr. Sweatman as engineer, and inspecting officers have had no occasion, heretofore, for complaint on these grounds, the case was dismissed.

... ..

Sincere sympathy is extended to Engineer Guy Lawson in the severe loss he sustained, when the "COTTONWOOD" left Thurston Bay with some of his luggage.

... ..

Mr. Leo Mayne, the genial and patient Marconi representative, was a visitor to "the Bay" this month. It is understood that he proposes to publish a manual entitled 'Curiosity Killed the Cat.' We are not sure whether Mr. Mayne got this idea from mixing too freely with high tension wires, or in a poker game.

... ..

"ANOTHER DISASTROUS FIRE (Quesnel, B.C.) - This town suffered a serious loss on Sunday morning last, when the Church of St John the Divine and the Clergy House adjoining were totally wiped out by fire. The fire, which broke out in the Clergy House, was first noticed about 10:40, and it had made such progress before being discovered that there was not a chance of saving the building or its contents. As the house was directly connected with the Church by the small chapel, it was soon apparent that the sacred edifice itself was doomed also, and the efforts of the crowd which had quickly gathered were directed towards saving the contents of the Church and of the Veterans' Hall just north of it. This was successfully accomplished, mainly through the aid of Forest Ranger R.B. EDEN with his gas-engine and pump, a line of hose being laid from the Quesnel river, by which the old building was kept wet."

TREE DOOM

To draw sweet sustenance from the earth
Without devouring meat that's slain;
With casing bark to fit one's girth
And stand unhoused in wind, sun, rain,-
To have waved leaved instead of hair
And a green colour for a face;
Never to move through life elsewhere
But root forever in one place;
O, what a strange life there must be
In a broad, earth-rooted tree!

And yet, men say, when stricken sore,
Trees shiver a space just as they're felled;
A sentence sweeps their inmost core
That by their downward rush is quelled -
As if, from base to crown, they tried
To walk but once before they died!

(Harry Kemp, in "The Gum Tree.")

(LATE AGAIN! - What's 'at? Late again? Sure, we know. Well, it can't be helped. Too many conflicting interests this month. Ed.)

TRANSFERRED TO THE INTERIOR

(With Apologies to Moira O'Neill)

Here in the Interior I'm sweltering in the heat;
But if I were in Smith Sound my joy would be complet
Weary on the damned Interior an' sorrow take the heat!
Och, Fair Queen Charlotte Sound
An' the rain-clouds over it!

You thtravel here entirely by the grace of Henry Ford;
You crank instead of slippin' lines before you climb
I'd give their lakes an' rivers an' all their (aboard.
"Scenic Spots"
For the EUCLATAW down channel
A-hittin' her ten-knots!

You'll lunch here at a farmhouse. Do you think you
get a square?
A loin of pork and strawberries - Faith, that's the
reg'lar fare!
If once the powers that be relent, 'tis I'll be back again.
Happy on a clam beach
An' diggin' in the rain!

They talk about their crops, in troth, their timothy an'
spuds;
An' how the bees were failures (Shure half the swarms
were duds!)
But of 'Floppers' or of 'Stumpers' or a good hand-logging
show,
Sorra one had heard of them.
'Tis little that they know.

But, Glory be! - There's fourteen days when I can choose
my way,
When the salt chuck will be leading to a nook across
the bay,
Where I know there'll be a mowitch lurking snugly in the
brush.
With my leave now, Och, be dacint!!
District office, kindly Rush!!!

R. H. L.

RULES FOR EMPLOYEES - All requests for leave of absence
on account of toothache, severe colds or other minor ailments,
and on account of Church picnics, weddings, funerals and the like,
must be handed to the Foreman in charge of your Department before
10:00 a.m. on the morning of the game.

REAL PROTECTION WANTED - A scared-looking coloured man rushed into the Sheriff's office with an unsigned letter in his hand. Said he -

"Judge, sah, ah just got to have putection. Ah got a unanimous lettah heah and dis niggah done say ne's fixin' to kill me. Ah got to have putection!"

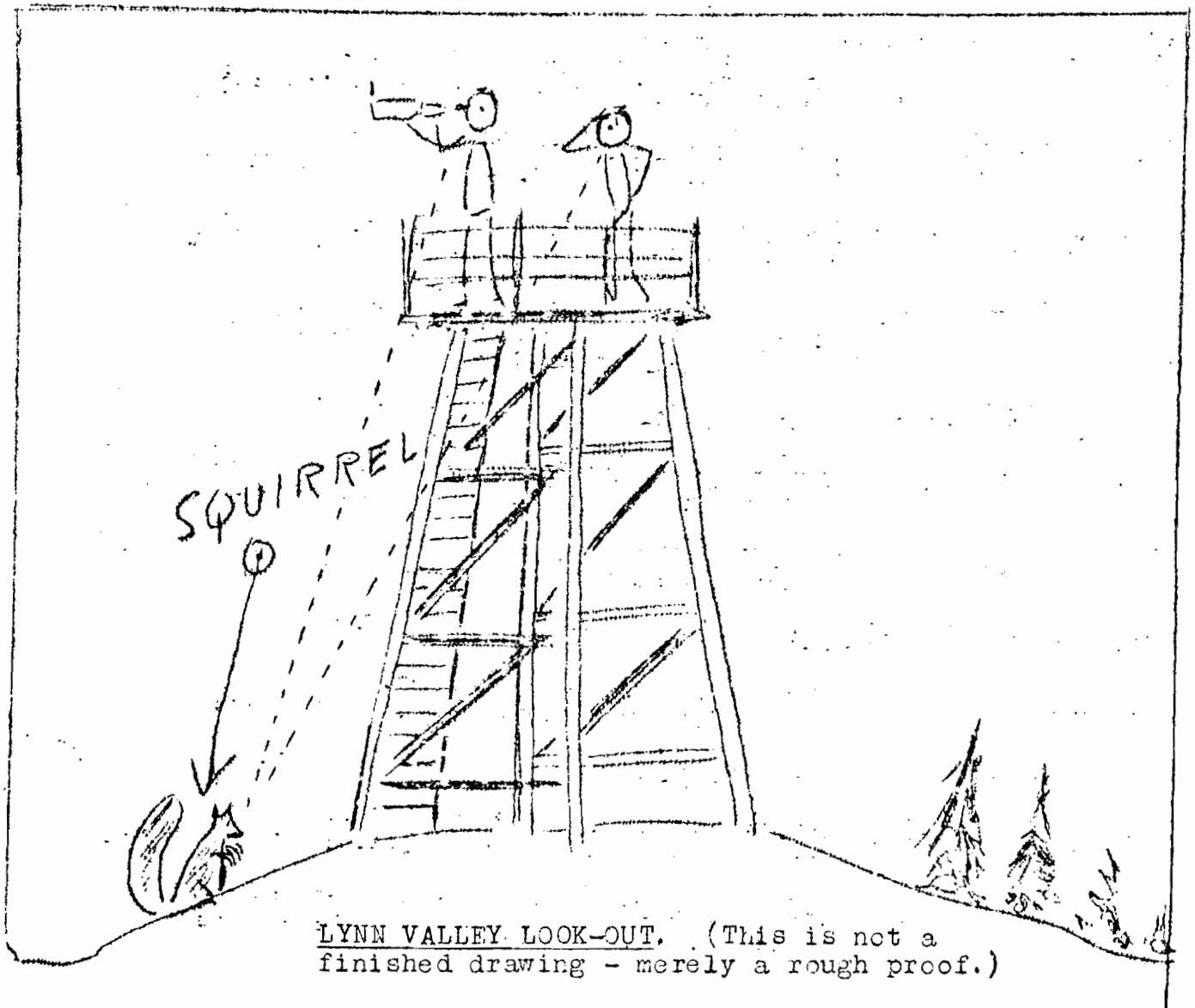
"Let's see your 'unanimous' letter," said the Sheriff.

It was a nigger scrawl that read - "Ef you doan let mah wife alone ah'm goin' to take mah razor and cut yo' black haid plumb off."

"Why, you don't need any protection," said the Sheriff. "All you've got to do is to let his wife alone and he won't harm you."

"Judge, sah," was the earnest reply. "Yo doan seem to undahstan'. Dis heah's a unanimous lettah. 'Taint signed. Now, how do ah know whose wife to let alone!"

(Gulf Coast Lumberman.)



OUR BOOK-SHELF

- Slash Burning - A Dubious Fire Prevention Measure.
(Lumber World Review - June 10, 1923)
- Fire Prevention, a Necessity in Logging Camps.
(The U. of W. Forest Club Quarterly, June '23)
- Forest Fire Prevention and Control.
(The Timberman, June, 1923)
- Logging Engineering - the Reconnaissance.
(The Timberman, June, 1923)
- Average Yields of Groundwood Pulp from Various Woods.
(The Timberman, July, 1923.)
- History of Paper-making in the West.
(The Timberman, June, 1923.)
- The Blueing of Coniferous Timber
(Transaction of the Royal Scottish
Arboricultural Society, July, 1922.)
- Trail Construction in the National Forests.
(U.S. Dep. of Agric. - Forest Service.)
- The Question of Standard Wages for Fire Fighters.
(Pacific Coast Lumberman - June, 1923.)
- Rangers' Emergency Rations - One, Two and Three-day Packages.
(The Timberman, June 1923; Pacific Coast
Lumberman, July, 1923.)
- Essentials of Management Plans. B. P. Kirkland.
- Why Canada Should Prohibit the Export of Manufactured Wood.
(Barnjum \$2,000 Prize Essays, Vol.1)
- Forests and Forestry in British Columbia.
(Revised Report of Imperial Forestry Con.)
- Grazing Reconnaissance. (The Idaho Forester, Vol.5. Edition 1923)
- Principal Uses of Douglas Fir at Present Time.
(Pacific Coast Lumberman, June 1923.)
- Public Relations in Forestry. (Idaho Forester, Vol.5. Edition 1923)
- Training Courses for Forest Service Protection Force.
(The Idaho Forester, Vol.5. Edition 1923.)
- How Nature Grows Forests and How Man Might Grow Them.
(Lumber World Review - May 10, 1923)

THE FIR

OH, let the South Lands sing the praise
Of shadeless Gums and Kauri trees
And graceful Palms on Ocean Isles
That fling their banners to the breeze;
But we who feel the North Wind blow —
The cold, keen wind that sets astir
Our blood with glowing energy —
We have the Douglas Fir!

Tall as a spire that points to Heaven,
Thick-coated and of mighty girth,
With roots that grip the rocky soil
It towers above the sordid earth:
And, like some stern old Puritan
Clad in his sombre garb, it seems
To ponder Life, to brood on Death
In never ending dreams.

Still staying green, though seasons change,
It speaks of Hope that cannot die,
And teaches us to scorn the low
By reaching bravely to the sky.
Year after year in pride and strength,
Though storms may beat its grizzled crest,
It stands (like England's strong-limbed oak)
Our emblem of the West!

W.H.S.