

ROOT AND BRANCH

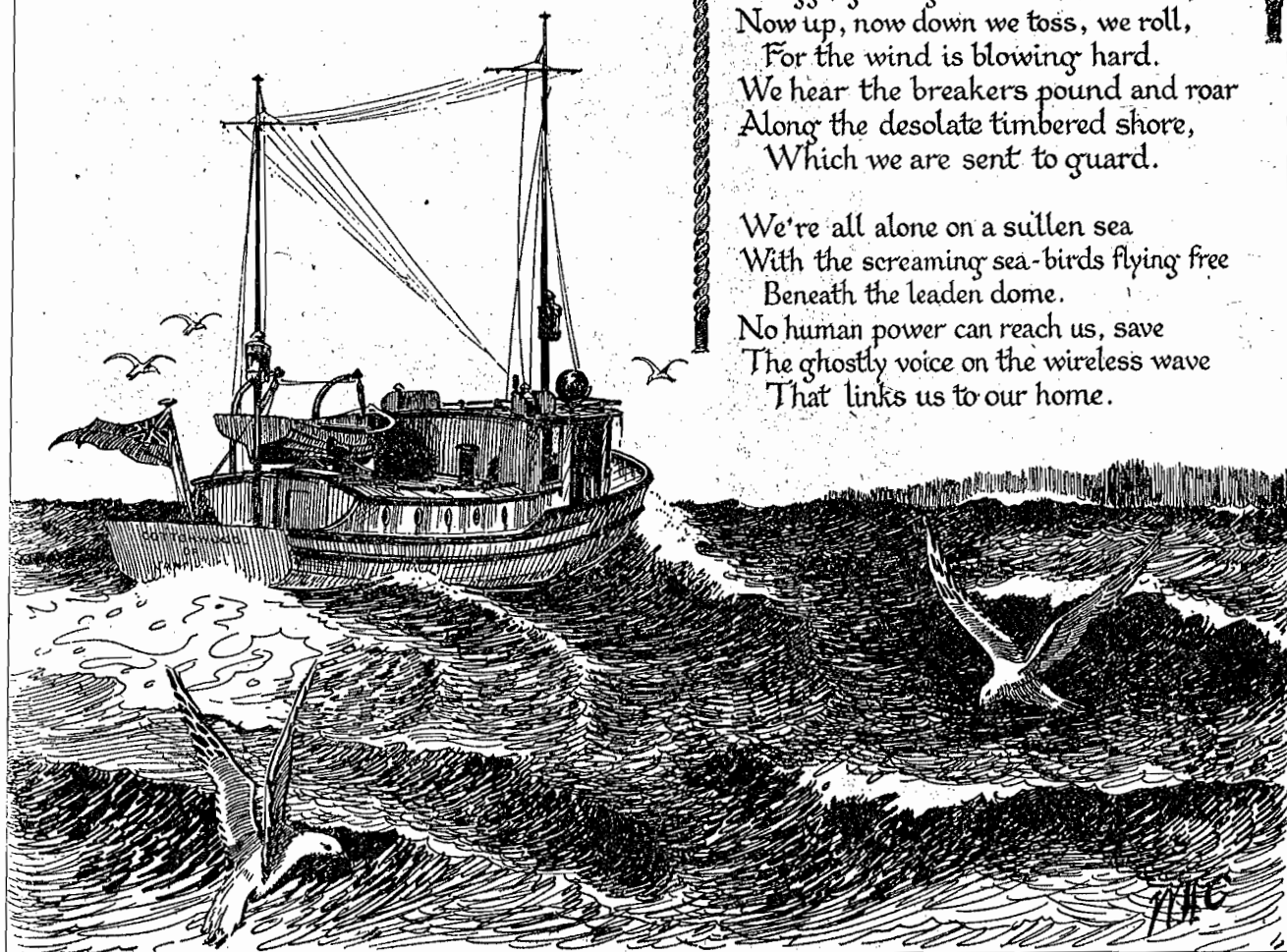
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LANDS DEPARTMENT

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THE LONE PATROL.

Plugging along on the Lone Patrol,
Now up, now down we toss, we roll,
For the wind is blowing hard.
We hear the breakers pound and roar
Along the desolate timbered shore,
Which we are sent to guard.

We're all alone on a sullen sea
With the screaming sea-birds flying free
Beneath the leaden dome.
No human power can reach us, save
The ghostly voice on the wireless wave
That links us to our home.



SHIP - SHAPE

The smiling face of the Editor appeared in my door-way today, and interrupted my reading of an important report with a "Last call!" "What now?" I asked. "A message for the boys afloat."

The report I had been reading was on the wreck of the "Alanbee."

Now, what the dickens do I know about Launches ! I have had many nice trips, being careful to allow someone else to bear most of the responsibility while I remained a spectator; but in casting backward about the only impressions remaining are the drumming of the engine, the smell of gasoline, and meal times.

Several instances do stand out like beacons along an otherwise monotonous coast. For instance, my first afternoon spent in the mouth of the Skeena, with Captain McCorskey, and my righteous indignation when the Jap cook announced "Supper allee same ready. You come now," just as I had finished offering to the sea lunch - breakfast - supper - lunch - breakfast - and so on, until I seemed to have gone back at least a week!

Then there was that month spent on the "Herring." Coming from near the 'blue-nose' country, I hold an aversion to herring - there seems so much bone to pick for the trifling amount of substance one gets; and one slip - but, there, it's best forgotten. Flumerfelt will bear me out that that boat was well-named. She was as small and mean, and required as much care to extract any enjoyment, as ever did her finny namesake.

A night with the real 'scotch mist' in the air, when Ben and I sat on the shore of Chancellor Channel, trying to figure out where the "Geraldine" was; surely not where we had left her a few short hours before!

A trip across Hecate Straits when the gold grey dawn disclosed the distant shore line and the white fronts of - well, Dan couldn't quite make out whether it was Metliketla, Port Simpson, - or maybe Sitka or Sayward.

A trip on the good ship "Skinner" when H.K.'s fishing proclivities turned the boat into - I think a fish hatchery would be the proper term.

Another phase is the passing of judgment on reports of accidents to Launches, the most recent of which is being held over so that I may get this ready for the Editor.

But there is not much of a message in this, and the Editor insisted on a message. So here goes - Did you ever notice how a close association tends to produce similarity? This is true even of ships and their masters. On many a launch I have noticed the condition and registered the mental impression that the man in charge was similar in his character. A launch which appears to be recovering from a 'drunk' on cocktails composed of bilge, oil, sea water and report forms indicates, to me, a Ranger careless in his work, reports half filled in, the essentials missed altogether. On the other hand, a trimly kept boat with everything in its proper place indicates careful work, with every possible precaution taken to guard the good name of the Service. And a launch driven at reckless speed shows a ranger lacking in judgment, half-baked recommendations, work that needs careful scrutiny before being passed upon. I have at times checked up my impressions so formed and found that they were substantiated by other information on file.

Now, we are engaged in selling our services to the public. Do the rest of the public receive the same impression from your launch that I did? If they do, how many of our launch officers are creating the very best impression? My message to you, then, is simply this: "By their launches ye shall know them." The wrong word maybe, but a good sentence to bear in mind for all that.

----- P.Z. Caverhill.

ARMISTICE DAY - Of all the days in the year, Armistice Day stands quite apart on its own peculiar pinnacle. The day that witnessed the culmination of our tremendous struggle and the resounding triumph of our arms, must always afford us a sober joy; and our joy must always be tempered by the deep and abiding sorrow which dwells in all our hearts for those comrades upon whose faces we shall not look again.

It is singularly appropriate at this time that we should call the Roll of our honoured dead, and we give their names in this number. So far as we can gather, the list is complete save for the Units in one or two cases, and if any of our readers can assist us there, and will do so at once, we shall be extremely obliged.

STUMPAGE APPRAISAL

(Part II.)

Last month it was pointed out that the stumpage value of timber should be its fair appraised value, due allowance being made in arriving at this value for a legitimate profit to the operator, for risk, and for a reasonable depreciation of his investment.

The first question therefore is- What do we mean by "Appraised Value" and how do we arrive at this figure ?

In principle, the matter is relatively simple, but in carrying out the details of the operation considerable thought and study are necessary.

The appraised stumpage value is the selling price of the manufactured product, less the sum of the items known as Operating Costs, Royalty, Depreciation, and Profit and Risk. These items are all defined in the "Stumpage Appraisal Manual" and the methods of allowing for the margin for Profit and Risk and for Depreciation are discussed therein in detail. The considerable number of carefully thought-out appraisals which have been received from Rangers, Junior Foresters and others since this Manual was distributed, shows a deep interest in the matter on the part of the field staff as a whole.

Before we can hope to reach anything like accuracy in appraisals, however, we must collect more accurate information on which to base them. Figures for selling prices, logging costs, costs of equipment and improvements are lacking in many regions, and more accurate information on these items is needed if we are to arrive at accurate Stumpage Values.

Part of this data will be slow of accumulation, while some of the items, such as cost of equipment, can be determined in a very short time. Logging cost studies are being inaugurated this winter, to be carried out along the lines of the circular issued last winter, and the data so collected based on labour and production, will be plotted and the information distributed.

Perhaps the most encouraging result of the appraisal work so far, to those of us who have tried to work out a complete appraisal according to the instructions, is this striking lack of adequate accurate information. The next step, therefore, will be to supply the lack as rapidly as we are able.

R. C. St.Clair.

Once on a time the 'fire warden' travelled his beat on foot or on horse-back. Then Henry Ford tried his hand at shaping our destinies, and the 'Forest Ranger' with his automobile sprang into existence. We do not intend to blame Henry Ford for the Forest Ranger, but we do wish to point out that Forest Protection and mechanics in this particular instance did march hand in hand. In other words, other folk progressed and we adopted the means of 'progression.'

We had to; we wanted to; we were forced to, by sheer force of circumstances, if you like - but really because we were on the lookout for anything that would help us along.

Discussion as to methods, followed by the adoption of at least some of the matters discussed, brought into being the use of the light car, the standard Service launch, the fire-fighting pump, and the wireless telephone, in connection with Forest Protection.

In other words, the Victoria office was sufficiently awake to see that each of the above-named pieces of equipment had a very useful niche in the scheme of Forest Protection work, and the result was that they were adopted.

Combined with this forward movement of the past few years, Ranger meetings have become an institution, and Round Table conferences take place every year, so that the problems of one may find solution in the experience of another, and thus avoid repetition of costly mistakes.

The Victoria office has helped this work along where it could, suggesting methods of more intensive organization, so that the field force should have some of the help from outside which the very nature of the work demands. For instance, we inaugurated a Reading Course, which we believe (and hope) will be of no little assistance to many of our men. We gave our time freely in order that the goal of 100% should be brought a little nearer than before.

In all these things, the field men and the executive staff have worked together, putting forward suggestions, criticising, being criticised - and ending by being several steps ahead. Team work, in short - and it pays !

Now, in spite of all that has gone before, we seem to have struck a slump from which apparently there cannot be a recovery for some time. We think this, because the only suggestion that we have so far received from the field force in regard to improving our methods is that suction hose can

be made shorter! Here we have a season that cost the Province \$750,000, that resulted in a known fire loss of approximately \$2,000,000 - and the only suggestion to hand is a method of saving eighty-four dollars per annum !!!

DON'T WAIT FOR THE OTHER FELLOW. Please let us know how we can help you in the field. The province is too big for us to interview every man personally, and therefore we are asking you to write your ideas.

It would be an appalling thing, would it not, if we had to admit that, out of the wreck and disaster of the year 1922, we could not find a single thing in our organization or methods of fire fighting that needed improvement!

----- C. S. Cowan.

"An ounce of Prevention is better than a pound of Cure" and if that old proverb applies to anything, it applies to Forest Protection," writes Ranger A.P.Horne (Kamloops). "To my mind, if a Ranger does not know when to put his Patrolmen on and where to put them, he should be changed to some part of the service where sound judgment is less essential. If he does know when and where to place them, he should get them, for it is better to have a liberal number of patrolmen on so that fires can be fought and extinguished when they are small, than to have only a few or none at all, until after the fires get going. I realise that every question has several angles, but from where I stand that seems to be the Line of Sight. Of course, I may be standing in the wrong place.

As to length of suction hose, I believe that if everything in the Forest Protection part of the service was as well proportioned as it, Mr. Cowan's 100% would be very near at hand.

I would suggest that four iron clamps be placed on the deck of the National Tank Cars, so that a pump could be clamped on to use the same water if (as often happens) there is no creek handy, and work in conjunction with the steam pumps by playing on both flanks of the fire if on one side of the right-of-way; if on both sides, one could work on each side. The above only applies to small railway fires, but that's the time to hit them hard and often."

(For several reasons the suggestion in the last paragraph is impractical. Railway fires primarily are up to the Railway Co., and we cannot run the Railway Co. Also, all possible pumps should be kept available for use on our own fires.)

OUR FLEET.

I see a fleet of vessels the operations of which, humble though they may be in the eyes of the great mercantile navies of the world, bear decidedly upon the trade and prosperity of this fair Province of ours.

Our little fleet, almost unknown to the general public, is quietly but surely making its mark. What would the Forest Branch do without its gas-boats, especially on the Coast? Carrying the Supervisor, Ranger or other field officer on his daily round, for scaling, cruising, forest protection, and many other phases which go to make up the day's work, they are so useful that if we were deprived of them by any mischance we would be in much the same fix as a table with only two legs to stand on. The table might be propped up so as to function fairly well, and the Forest Branch could still 'carry on' without its fleet - after a fashion.

This, however, is not what I started out to say; so let's get to the meat, or the Editor will be after my scalp.

I have just completed a tour of the launches operating in the Vancouver District, and I have great pleasure in saying that, thanks to the co-operation of our Station at Thurston Bay, the crews of the various launches, and the very great assistance given by the District Forester and staff, the launches are in a very much better state than at this time last year. This is in regard to cleanliness, general appearance, mechanical efficiency and economy of operation.

Let me tell you something. Last November it was estimated that a certain sum would be needed for the annual overhaul of this large portion of our fleet. The estimate was carefully worked out on the basis of costs for the five previous years, personal observation, and the allotment required for overhauling last winter. And the estimated cost of this winter's overhaul is a little less than 60% of last winter's. That's encouraging. No large extra expenditures have been taken into account, such as rebuilding the 'Walrondo II', as this would have had an unfair bearing on the showing, and besides is not an annual overhaul.

That, I say, is encouraging. Still, however, "there are a few flies in our ointment." Two of the launches are badly marked up from caulked boots, and some are not so clean as they might be, or have been allowed to rub against floats and booms without fenders. Now, I'm going to utter a word of warning here. It has been my experience that most men are willing to be reasonable, but unhappily we have still one or two who are not; and it is to those men that this warning is directed. Our endeavour is to build up a fleet which we can be proud of, and but for those few

we are getting along very nicely. Slovenliness and carelessness will be met with sterner measures in future; so - take heed, ye backsliders !

The Attorney General's Department has observed the building up of our fleet, and has requested the use of some of our boats to assist them in enforcing the Game Laws this winter. Co-operation between Departments is becoming more pronounced, and we are pleased to assist our good friends the Provincial Police to this extent. The 'Douglas Fir' will work in the Gulf of Georgia with Headquarters at Ganges Harbour, while the 'Birch' and the 'Alder' will go to Powell River and Pender Harbour respectively.

Thurston Bay is now in full swing on the annual overhaul and is booked up until the 1st. of May. Station Foreman C.D. McKinnon and his crew have a busy time ahead of them, but we know they can turn the trick.

Now then, boys, all together. Get busy, and keep busy. Keep the engines in good shape, and the boats clean and trim. Let's hear the people say that we have a fleet second to none. They are the judges - and what they say goes.

J.H.Blake.

"ORDERS THROUGH THE ETHER - Already the score of fast motor boats forming the forest ranging fleet maintained by the B.C. Government are equipped with both sending and receiving sets. At certain times daily each Ranger receives a call from the main station, gets the latest information or new orders, and then in turn reports anything of importance. Thus, in case of a forest fire starting, precious hours can often be saved and what might otherwise cause the destruction of millions of dollars' worth of trees can be put out in its earliest stages. As fast an aid, and as far-sweeping of vision, the seaplane now patrols the forest areas of B.C., one of the largest machines in the world being employed for that purpose. Journeys that took the Indians months to make, and take modern steamers several days, the seaplane does between lunch and dinner!"

(Boston Evening Transcript.)

RULES FOR THE SERVICE - "When one arrives a little late in the morning, one should always make a point of leaving a little earlier at night, and so avoid being late twice in one day."

The size of a dollar depends entirely upon how many more you have.

SMALL CRAFT.

When Drake sailed out from Devon to break King Phillip's
pride,
He had great ships at his bidding, and little ones
beside;
REVENGE was there, and LION, and others known to fame,
And likewise he had small craft which hadn't any name.

Small craft - small craft, to harry and to flout 'em!
Small craft - small craft, you cannot do without 'em!
Their deeds are unrecorded, their names are never seen,
But we know that there were small craft, because there
must have been.

When Helson was blockading for three long years and more,
With many a bluff first-rater and caken 'seventy-four'
to share the fun and fighting, the good chance and the bad,
Oh! he had also small craft, because he must have had.

Upon the skirts of battle, from Sluys to Trafalgar,
We know that there were small craft, because there always
are;
Yacht, sweeper, sloop, and drifter, today as yesterday,
The big ships fight the battles, but the small craft clear
the way.

In Admiral's despatches their names are seldom heard;
They justify their being by more than written word;
In battle, toil, and tempest, and dangers manifold,
The doughty deeds of small craft will never all be told.

Scant ease and scantier leisure - they take small heed
of these,
For men lie hard in small craft when storm is on the seas.
A long watch and a weary, from dawn to set of sun -
The men who serve in small craft, their work is never done.

Great ships and mighty captains - to these their meed of
praise
For patience, skill, and daring, and loud victorious days;
To every man his portion, as is both right and fair,
But oh! forget not small craft, for they ha' done their
share.

(C.Fox-Smith in "PUNCH")

MIXING IT UP.

On a recent trip to the Cranbrook district I had a chance to see one of the most interesting and diverse operations it has yet been my good fortune to visit. The White Spruce Lumber Co. are operating the watershed of Hartley Creek, a small stream near Fernie, and have crossed over the summit to the Head-waters of Bull River. The bulk of their cut will be from the latter chance, but they are just getting into it and in the meantime are still working on Hartley Creek. All the logs are delivered by one means or another to a small lake at the head of Hartley Creek and from there flumed to the mill at the mouth of the creek.

Approaching the mill from Fernie one wonders where the timber can possibly come from - just as the casual visitor to Kamloops, looking at the bare hills, asks the 'why-for' of a Forest Branch office. The hills around Fernie and the mouth of Hartley Creek are burnt clean of every stick, there being in many places nothing but bare rock. From the Elk Valley the mountains appear to go straight up to the snow-peaks, with here and there a narrow canyon running back into them. Hartley Creek is apparently no different from the rest till one gets up six or seven miles, when it widens out surprisingly into a mighty good basin of green timber. Seemingly this same thing happens in a good many burnt-off valleys in the Interior. From all that can be seen in the main valley, there is no timber to be had; but away back in the hills are hundreds of sheltered basins to which the fires have not yet penetrated.

The first camp on Hartley Creek is taking timber from the snow line. They are established in a small basin just under the bare peaks, a thousand feet or more up from the head of the creek, which must be close to 5,000 feet above sea-level. All supplies have to be taken to this camp by pack train over a switchback trail. We recently made a timber-sale to supply this same camp.

Another outfit is dropping their logs straight over a cliff a couple of hundred feet onto a rock-slide, down which they roll to the lake, while directly across the creek they are sent down a chute so steep that they leave a blue trail like a Ford car, and often skid clear across the pond. Still another chute drops the logs over a break in the hill into a heap at the bottom, from which they are being skidded to the flume.

Logs from Bull River are brought to the summit by rail, the motive power being the 'Galloping Goose'. This weird but efficient locomotive is home-made from a donkey, and not only hauls the logs but loads them. The appropriateness of its name is understood when one sees it swaying and lurching down the track.

Near the summit a donkey is yarding tree lengths for a

distance of 3000 to 4000 feet, to a landing where they are bucked by hand, loaded by the aforesaid 'Gallopig Goose' and hauled to the summit, unloaded onto a roll-way and sent down a wet chute to the pond at the head of the flume.

A new grade is being built from the summit on to Bull River, and next year will see a very heavy output come from that section. New chutes to tap the timber have been built and a new main camp. Thus we have a combination of flume, horse-skidding, ground chute, pole chute, wet chute, railroad and donkey, all on one operation! The White Spruce Lumber Co. certainly seem to have exhausted all the possibilities save motor trucks and tractors in logging their timber - and they are making it stick, too.

G.P.Melrose.

They Had Their Troubles Too!- The result of forty years of unregulated burning is shown in a recent bulletin on the historical side of the timber industry issued by James Lawler.

Lawler states- "The first timber regulations, as appears from a grant of land in 1683, were made in regard to the reservation of oak to build the King's ships. The remainder of the timber was of no consequence. Timber formed such a negligible part of the commerce of that day that the only question considered was its apportionment among the different parties to the Land Grants, - the Crown, the seigneur, and the 'habitant.'

"The determination of the pioneer settlers to rid their lands of the encumbering trees, and their use of fire for that purpose, was later felt in the shortage of timber for fuel in the immediate neighbourhood of centres of population; so that by 1720 stringent laws were passed against trespassing by the inhabitants of towns and villages on the lands of their neighbours to cut fuel."

This, of course, was more than a century before the day of the railroad, and it was necessary to depend on horse transportation. Railroads, however, only enlarged our sphere of utilization and the same natural laws are working today which caused the shortage of timber in 1720.

A recent head-line says- "Martial Law in Constantinople."
Is this guy Martial Law any relation to Bonar Law ?

THURSTON BAY.

Most of us are aware of the existence of the Thurston Bay Station, but where it is and what it is and what its functions are, are matters only vaguely understood unless by the few whose duties take them there.

Thurston Bay Station is located on SONORA Island, near the heart of that bewildering archipelago which just fails to join Vancouver Island to the Mainland. This gives it a strategic position almost equally distant from the various points on the Southern Coast at which launches are stationed. From this it will be seen that it is nowhere near the Thurston Harbour with which it is often confused.

The Station itself stands at the head of a little inlet on the N.W. corner of Sonora, and affords an anchorage sheltered from all prevailing winds. Only when the wind is from the N.W. quarter are things other than perfectly snug and comfortable.

The Station was established in 1913 for the construction, repair and maintenance of the launches of the Forest Branch Coastal fleet, numbering today about thirty, but altho some very successful launches have been built there (notably the 'Douglas Fir', 'Red Cedar' and 'Sitka Spruce'), its activities are now confined mainly to repair and maintenance.

Here live and move and have their being a permanent staff of six, namely, the Supervisor and his Clerk, the Station Foreman, Head Mechanic, Head Boat-builder, and Radio Operator, which staff is augmented occasionally when circumstances make it necessary; but as a general rule it does not take the census-man long to get through at Thurston Bay.

Besides being practical, the location is extremely picturesque, its chief disability from a social standpoint being that it is somewhat isolated from the main current of human affairs. But even that has now been mitigated to a great extent since the installation of the Radio set, which places the station in close touch not only with Vancouver office, and the several launches which have been similarly equipped, but also with points so far distant as Seattle and San Francisco.

On approaching the station one notices on one's right (or perhaps we should say "to starboard") the rocky island on which stands the Supervisor's cottage and the Bunkhouse and Radio station. Between the two rises a 'wireless' mast whose twin is located by the Boat Repair shop. Directly ahead lies the slipway, running (partly under cover) to the Machine shop. At the rear of the Machine shop is the Power house and the Blacksmith shop, and a little to one's left are the cottages

of the Station Foreman, the Mechanic and the Boat-builder.

The station is equipped with a number of machine tools for which power is obtained from a Pelton wheel. Besides the water wheel, there is a gasoline engine for use in emergency. There are also several electrically-operated tools, and the current from these, and for the radio set and lighting system, comes from a generator driven by the wheel. A power winch is used on the slipway, and this with the band saw and steam box, the blacksmith's forge and the hand tools common to all repair shops, completes the mechanical equipment.

From information supplied by Mr. R.V. Stuart, we are able to give a brief resume of the Station's history. When the Forest Branch was organized and the Patrol fleet placed in commission need was felt for a central fuel and repair depot. Heriot Bay was the first site selected and the first depot was established there in 1913. It consisted of one float about 60' x 40' and a two-room shack. It was soon found that weather conditions there were unfavourable for the establishment of a repair station, and in the Spring of 1914 Benedict and Black, after cruising for a week on the 'Skinner' on a search for a location, chose Thurston Bay.

Construction was commenced that Fall, under direction of Ranger McConnell. The first equipment consisted of one set of ways, and storage for a number of the smaller boats. An idea of the size of the fleet at that time will be gained from the fact that all seven of the launches which were in use south of Thurston Bay were towed north by the "Alanbee." Power was supplied by a small engine taken from the "Hermis", an old 24-ft naval tender. In 1917 this was replaced by a 10 HP. Fairbanks engine, which remained in use until the present hydro-electric system was installed in the latter part of 1919, from plans prepared some years earlier by Cowan.

Improvements have been carried out from time to time. In 1915 houses were constructed for the Station Foreman and the Telephone Lineman, and in 1916 a small bunk-house was built on a float to accommodate station employees and the crews of launches in for overhaul. New ways were built in 1917, and in that year work was commenced on the 'Sitka Spruce', to be followed in 1918 by the 'Red Cedar' and 'Douglas Fir'. The 'Eunice B' was rebuilt at Thurston Bay in 1918, the 'Eva R' rebuilt in 1919, and the 'Kiora', 'Euclataw' and 'Geraldine R' all were rebuilt there in 1921 and '22.

W. H. C.

EDITORIAL

STOP! LOOK! LISTEN!~ Owners of timber lands in B.C? are being called upon to pay a special levy of three-and-a-half cents per acre to cover their proportion of the deficit of \$616,000 in the Forest Protection Fund. The Government's proportion in the ratio of 3 to 2, amounts to \$338,000.

This deficit has been created by the abnormal fire-fighting costs of the past two years. At the commencement of this year we were faced with a deficit of \$360,000 odd, which we had hoped to liquidate in the next three years through our regular Forest Protection income (which amounts to approximately \$500,000 per annum), but instead of the deficit's being reduced it was almost doubled!

Undoubtedly this is as serious to the timber holders as to the Government, but it is one of these things which must be faced and should emphasise (if emphasis is necessary) the importance of insisting on 100 cents in value or service for every dollar spent, whether on equipment or personnel.

An Appreciation - Last fire season, besides making extraordinary inroads into our finances, made altogether abnormal demands upon our physical endurance, and in all probability we shall never know the full extent to which our organization was tested.

The clerical staff, too, did splendid work. This was notably the case at Vancouver, where the volume of work to be handled was appalling. The early hours of many mornings found them still at it; but even so, their efforts would have been fruitless in a great measure but for the co-operation of Mr. Mahoney, the Government Agent, whom we cannot thank sufficiently for his helpfulness and ready courtesy in the day of our extremity.

We Thank You! We have great pleasure in introducing to our readers Mr. E.J. Haughton, Division Superintendent of the Radiotelegraph Branch of the Department of Marine and Fisheries. Mr. Haughton's article on the RADIOTELEPHONE in this number is of peculiar interest to us who were making practical use of the radiotelephone some time before it became so thoroughly domesticated as it is today.

The ready courtesy with which Mr. Haughton acceded to our request for the article in question encourages us to hope that we may be favoured with others from his pen later on.

The courtesy extended to us by contributors not intimately connected with the Forest Branch has been distinctly gratifying and is helping us tremendously towards a realization of our lofty ambitions for the future of "ROOT & BRANCH."

"Folks who never do more than they get paid for," said Elbert Hubbard, "never get paid for more than they do."

The impression seems to be current that the economical operation of launches is purely a matter of carbureter adjustment. It is - partly. But all the wasted fuel isn't in the exhaust; a lot of it is in the mileage. If a ranger with headquarters at "A" proceeds with his launch to inspect a logging operation at "B", returns to his headquarters that night, and on the morrow goes with his launch to do some business at a point midway between "A" and "B" which might just as conveniently have been done the day before, that ranger is not operating his launch economically - we don't care a damn how finely his carbureter is adjusted.

The officer in charge piled up the "Alanbee" last week on a half-tide rock off Mosher's Camp by Dent Island, in broad daylight. There are three channels, one for row-boats, one for gas-boats, and one for flying-boats. Our officer selected the latter. Now, when a ranger piles up his boat in his hurry to reach a fire, he can at least plead urgency; but there was no such urgency in this case, which makes it all the more reprehensible. The rock on which the "Alanbee" struck lies only about 160 feet off shore, and to hoist herself clear up onto it she must have been hitting a pretty fair gait. Certainly she was travelling much too fast for a launch approaching a landing.

The officer has been suspended, pending the decision of the Court of Enquiry.

HARD A PORT, SIR ! - Murphy, the well-known gasboat man of the Greene Point district, was toting a wire rope salesman from Tucker Bay to Wellbore Channel. "Mr Murphy" said the salesman, anxiously, "I hear there are a lot of shoals in this passage." "I know every shoal north of Vancouver, except one," assured Murphy. Just then the craft hit a rocky bottom and sheered sharply to the left. "That's it now," he said, never slackening speed a particle.

DISCIPLINE - "Discipline does not destroy initiative; it assists in leading initiative into straighter and sounder channels. We must willingly censure ourselves and accept censure for the wrongs we do, and we must do it with the right attitude of mind."

PRO REGE ET PRO PATRIA

We are the dead. Short days ago
We lived, felt dawn, saw sun-set
glow,
Loved and were loved. And now we
lie
in Flanders fields.

W.A. Boulton.	47th. Battn.
T.H. Bewlay.	R.G.A.
J.M. Case.	Cdn. Engineers.
J.R. Chamberlain.	R.F.C.
V.A. Harvey.	
R.F. Irvine.	54th. Battn.
P. Johnston.	
J. McLennan.	16th. Battn.
G.R. Malcolm.	3rd. C.D.A.C.
J.B. Mitchell.	C.A.S.C.
N.F. Murray.	67th. Battn.
J.P. Nash.	
A.J. Pickup.	
H.A. Rees.	
F.A. Richardson.	R.F.A.
W.T. Taylor.	47th. Battn.
S.T. Wheatley.	2nd. C.M.R.
F.M. Whitlow.	2nd. C.M.R.
V.K. Wood.	7th. Battn.

--ooOoo--

POWER

In the development of British Columbia rivers for power purposes one of the most important factors is the possibility of storage, as, owing to the mountainous nature of the watersheds of our rivers, particularly on the Pacific slope, the "run-off" of rainfall is extremely rapid. Unless the water is stored during the periods of heavy rainfall, a shortage of water will occur during the dry periods until further water becomes available in the summer, either by the melting of snow or glaciers in the higher portions of the mountains. To secure storage a dam has to be erected, usually at the outlet of the lake, if solid rock foundations are available. The stored water is conducted from behind the dam by means of steel penstocks leading down to the power house. A typical power house installation at one of the paper mills in British Columbia consists of 3 units. No.1 and No.2 units are Francis type waterwheels of 2,100 horsepower each operating under a head of water of 145 feet coupled direct to 3-phase electric generators of 1,875 kilowatts each. The third unit is an Impulse type waterwheel of 4,500 horsepower coupled direct to a 3,750 kilowatt 3-phase electric generator. The current generated in the power house is used to drive the machinery in the Sulphite Mill, Sulphate Mill and Paper Making Room.

The power to drive the grindstones in the Ground Wood Pulp Mill is derived by Francis type waterwheels, six in number, each developing 1,600 horsepower and connected direct to the grindstones. A separate steam boiler house consisting of boilers having a capacity of 6,000 horsepower is installed. The steam generated is used in the drying process in the paper making room, the digesters in the Sulphite and Sulphate Mills and other points around the plant. A mill capable of consuming this amount of power will operate around 313 days per annum at 24 hours per day and can average per day about 250 tons of paper, 180 tons of ground-wood pulp and 180 tons of Sulphite and Sulphate pulp, while the electric generators will generate around 50,000,000 kilowatt hours per annum.

From these figures it will readily be appreciated how vital an uninterrupted supply of water for power is to a pulp and paper development.

It may be of interest to show how the Government control the use of water in British Columbia. The right to use unrecorded water in any stream is vested in the Crown in the right of the province and no person or company may legally divert and use water except under the provisions of the Water Act, which is administered by the Honourable the Minister of Lands through the Water Rights Branch, the

Department to which all applications for Water Licences for the various purposes including the development of power are made. Broadly the regulations are that a company desiring to develop a certain river "stakes" the stream, i.e. posts notices at the point of diversion and point of use. Copies of these notices are mailed to the local Water Recorder, advertised in a local paper etc., and, in due course, the Company obtain a licence authorizing them to make surveys, start and complete their works within stated periods.

No licence is issued to any applicant until his bonafides are ascertained, the quantity of water staked determined as reasonable and the application fees paid to the Crown. For Power Licences the application fee is based on the horsepower estimated as being capable of being developed and commences at \$.50 per horsepower for the first 1000 horsepower, \$.25 per horsepower for the next 4000 horsepower and \$.10 per horsepower in excess of 5000 horsepower. Until the commencement of developing power the applicant pays an annual rental equivalent to one-third of the application fee.

When the development is completed and the power plant operating, the annual rental is based on the output of the plant in horsepower years and varies from 25 cents to \$2.00 per horsepower year depending upon the franchise value of the site. This value is governed by the natural advantages of the site for the developing and marketing of power in comparison with those of other waterpower plants in the Province.

The price to be obtained for electrical power is more or less fixed, as it is now an established commodity for sale or, in the case of a special requirement such as power for manufacturing pulp, the cost of producing power must not exceed its economic value in relation to the selling price of pulp. In other words, the plant must be located where power can be produced at a cost commensurate with the selling price of the manufactured product.

The cost of developing power in this Province varies enormously. The cheapest initial cost of development for a large plant in the Province amounts to, approximately, \$60.00 per horsepower developed and delivered at the end of their high tension transmission lines, and, as approximately 30,000 horsepower are developed and transmitted, the initial capital expenditure for power development and transmission amounts to, approximately, \$1,800,000.00. Another development cost, approximately, \$98.00 per horsepower developed and delivered and, as 9,000 horsepower are developed, a cap-

ital expenditure of, approximately, \$882,000.00 was involved.

An expensive development in the Province amounted to, approximately, \$156.00 per horsepower developed and delivered, which, with a development of approximately 21,000 horsepower, involved a capital expenditure of around \$3,276,000.00.

The reason will now readily be seen for the wide variation in the amount of the annual rentals charged by the Crown. The cause of the varying costs is the nature of the site to be developed, the head of water obtainable at the waterwheel, the distance of the site from transportation, the distance necessary to transmit the power when developed and cost of labour and administration.

The market for the power when developed is the deciding factor when a proposed development is under review from an economic standpoint.

The following is a summary of developed and undeveloped power in the Province:

Company and Municipality hydro-electric developments:
Total 175,000 horsepower.

Mining Developments: 40,000 horsepower.

Pulp and Paper Developments: 50,000 horsepower.

Total of all developments to date: 300,000 horsepower.

Estimated, from time to time, approximately, 3,000,000 horsepower undeveloped.

Water for developing power is measured in cubic feet per second, equivalent to 538,453 gallons per day. The flow of water required to develop a certain number of horsepower depends entirely upon the head of water obtainable. As 1 cubic foot of water falling 8.8 feet in one second develops 1 horsepower, it will readily be seen that, if the same cubic foot of water falls twice or ten times the distance, it will develop twice or ten times the horsepower.

A development of, say, 25,000 horsepower operating at, say, 50-foot head and at an efficiency of 70% requires a flow of 6,250 cubic feet per second, whereas, if operated at 500-foot head, would only require 625 cubic feet per second. The high head developments are far cheaper to develop, as the smaller volume of water to be handled through the waterwheels involves

much smaller and higher speed water wheels and electric generators.

A summary of the capacity of the world's water power plants and of the world's potential water power, representing seventyfive per cent. of the theoretical power from flow available at least seventyfive per cent. of the time, is given below -

	Developed.	Potential.
North America	12,210,000	62,000,000
South America	424,000	54,000,000
Europe	8,877,000	45,000,000
A s i a	1,160,000	71,000,000
Africa	11,000	190,000,000
Oceania	147,000	17,000,000
Approximate Total -	23,000,000	439,000,000

G. Porter.

(This is the concluding article of a most interesting series, but we hope we shall be able later on to induce Mr. Porter to exercise again his happy knack of handling a technical subject in a manner acceptable to all of us. Editor.)

Some may prefer to put their trust
In an old "tin Lizzy" that rolls in dust;
But let me to sea, and to windward beat
on the trim little craft of the Forest
Fleet!

"Alanbee", "Embree", "Beatrice R", -
These beat any old motor car!
"Bitch", "Kiora", and "Douglas Fir",
Cutting along while their engines purr;
"Eva", "Geraldine", "Euclataw",
Gallant guards of the Forest law;
"R.J. Skinner", "Eunice B",
Good staunch craft in a stormy sea.
And many another just as good,
Down to the brand-new "Cottonwood".
All of them natty and trim and neat -
Forty-odd ships of the Forest Fleet.

W.H.S.

WE ARE BRINGING OUT A CHRISTMAS NUMBER NEXT MONTH.
PLEASE GIVE US YOUR ASSISTANCE. LET US HEAR FROM
THE FIELD.

THE RADIOTELEPHONE

A British Columbia forest fire is an appalling sight, and it requires good organization and courage to cope with it. Without proper organization, it spreads with amazing rapidity and soon gets out of control.

The radio 'fire' has spread around the world and is, in a measure, out of control. However, the different Governments are now co-operating and arranging for conventions of their technical officers.

Uncontrolled, radio would result in hopeless chaos. Bands are playing, speeches, prayers, jazz and sermons are in the air everywhere, right in the room you sit in at this present moment, a wonderful conglomeration of noises - but, of course, inaudible. A very few years ago, the person making this statement would have invited ridicule, if nothing worse.

By the use of a type of instrument termed 'Valve Receiver' these noises can be separated and made audible and intelligible, also amplified louder than the original.

In 1920, the number of amateur receiving stations in Canada did not exceed 300; today there are upwards of 5,000 equipments. There were no stations sending out into the air music, speeches, etc., while today there are fifty distributed between Victoria and Halifax.

Radio stations in Canada, whether for receiving or transmitting, must be licensed by the Federal Government. In the United States no receiving license is required, and therefore no correct estimate of the number of receiving stations can be made, but it is said that in New York state alone there are 750,000 receiving equipments. Transmitting stations are licensed and the number now existing in the United States is said to be 500. These stations are operated principally by newspapers and dealers in radio supplies; they 'broadcast' news, music, speeches, etc., several times daily.

The 'broadcast' conditions in the United States are not altogether ideal, owing to the overlapping of schedules and the consequent interference one with another. One often hears a prayer by an eminent divine, with a foxtrot accompaniment, one or the other predominating.

Broadcasting stations are confined to wavelengths of from 200 to 500 metres, so that they may not interfere with shipping and commercial wireless stations. It will be easily understood, therefore, that with the large number operating and the limited wavelengths permitted, co-operation and Government control must exist.

Transmitting stations are expensive to instal as compared with receiving stations. An efficient receiving equipment can be purchased for \$150; a transmitting station runs all the way from \$350 up to \$6,000 for a moderately high-powered equipment.

A number of Governments are using portable radio-telephone equipments in Forest Protection work, with considerable success. The B.C. Government is a notable instance. In the United States, the look-out stations are equipped with radiotelephones.

'Radioitis' has attacked old and young alike, male and female. Aside from the amusement it affords, radiotelephony has a wonderful future. It will link up the isolated districts with the great centres. Farmers and their families, by its agency, may sit at home and listen to the church service, or hear agricultural or health lectures, crop reports or weather forecasts. Under proper control, radiotelephony will make isolation from things worth while a legend of the past.

E. J. Haughton.

If you have a bit of news,
 send it in;
Or a joke that will amuse,
 send it in;
A story that is true,
An incident that's new;
 send it in.
If it's only worth the while,
Never mind about your style,
 SEND IT IN.

'HOT AIR' - The following conversation actually took place in the rotunda of the Willows Hotel, Campbell River, one sultry afternoon last August, when the sun could not penetrate the pall of smoke.

1st. Lady Tourist.- "My, this heat is awful!"
2nd. Ditto. "Yes indeed. And to think that these bush fires could bring the temperature up so much. As you see, there's no sun. I suppose this heat will continue until these fires are put out by the fire-wardens."

"Incidentally," remarks Supervisor MacDonald, "the nearest fire at that time was eight miles away."

PERSONAL PARS

As a result of the Ranger Examination held recently in Vancouver, so that appointments might be made to the several vacancies in the organization of that district, we are glad to welcome on their accession to the ranks of the permanent staff, the following -

T.R. Dixon, who has been an Assistant Ranger for three years in the Nanaimo district, and whose new headquarters will be at COMOX.

D.B. Taylor, who also has given service as an Assistant Ranger, and who proceeds now to Alert Bay.

And G.G. Armytage, who will administer the Ranger district with Headquarters at Ocean Falls, made vacant by the promotion of R.H. Leighton to the rank of Supervisor. Armytage has been employed by the Branch both as a patrolman and on reconnaissance work, for which his being a B.C.L.S. made him peculiarly fitted.

Miss Netta Prince and Miss Beatrice Mogridge are the latest additions to the permanent staff on the clerical side. Both have been employed for some time past in temporary capacities in the office of the District Forester at Vancouver.

We understand Ranger O'Grady continues to progress, slowly but satisfactorily, towards recovery.

J.L. Alexander has just reported in from an extensive reconnaissance of the Yellow Pine zone. On the page devoted to 'Field Notes', he gives us the gist of his observations.

The 'Cottonwood' has proved a success, and is now operating out of Thurston Bay for the time being, in charge of Supervisor Wilkinson, with Engineer Sweatman in the dual role of engineer and chef de cuisine.

Jim Blake has unearthed another fire-fighting dog, belonging to some people up around Alert Bay. This time we are forced to believe that there may be something in it; he cites the names of R.V. Stuart and T.H. Wilkinson, and we have a tremendous respect for the veracity of these gentlemen.

Jim states that the dog knows as much as he does. Tut-tut! he shouldn't say things like that about the dog. The people at Alert Bay might want to sell the dog some time.

The two preceding items will indicate the lengths to which we are forced, in order to preserve this feature of our journal. We are loath to believe that our readers would willingly permit 'Personal Pars' to perish. How about it?

FIELD NOTES

"News items from this District which would be of general interest are scarce," writes District Forester Bonney from Prince George. "There have been no deaths, marriages or births. Every once in a while, an opportunity presents itself to every field man to prove in a very definite manner that Forest Branch co-operation is a thing of real value. During a fire which recently destroyed the Plant of the E. Bashaw Lumber Co., and caused a loss of some \$30,000, Ranger rushed a fire pump unit into action shortly after midnight and prevented the spread of the fire into Bashaw's lumber yard, where he had a stock of some 550 M. ready for shipment. I am forwarding you Mr. Bashaw's letter in which he expresses his thanks for this assistance.

"The C.N.R. has called for tenders for 1,100,000 ties for delivery this season within the Fort George district, and contracts are now being issued at prices approximately 10% above those obtaining last year. We are handling a considerable number of tie sales, many of which include fire killed tie timber which must be salvaged this year. This increased tie production in the district this year will produce a considerable revenue, estimated at from \$30,000 to \$40,000.

"Prospects do not look very good for a heavy cut of sawlogs this winter in account of the depressed market conditions,"

"During the past summer," says Mr. J.L. Alexander, "a party has been studying conditions in the Yellow Pine belt with a view to constructing yield tables, and determining the best system of management. Nine permanent experimental plots were established.

"In order that conditions might be ascertained throughout its commercial range, work was done in the Merritt and Princeton regions, and in the pineries from Chinook Cove to Gateway on the International Boundary in the East Kootenays.

"The D.B.H. and total height of every tree were measured on more than a hundred plots as a basis for the construction of yield tables. The volume of the plots will be computed from tables based on D.B.H. and total height. Age was determined by borings, proper adjustment being made for the time required to grow to the height of boring. The average maximum height of the stands will be used as a basis of site classification.

"There will be a large number of plots in each site class of different ages and correspondingly different volumes; and any irregularities will be evened-off by the graphic method.

"The data gathered indicates that the northern limit of pine is not directly due to site conditions, but to its inability to compete with fir, its chief associate. As good pine exists at the extreme northern limit of commercial stands as in any section of its range. An evolution is taking place, the more tolerant fir reproduction predominating in the mixed fir-pine type, even though a small per-centage of fir exists in the original stands.

"The area occupied by the best pine is potential agricultural land; hence our pineries are decreasing in area as well as in quality.

"Pine reproduces in even-aged groups, varying from a few trees to many acres, depending on the sizes of the openings made in the parent stands. The ages of the groups vary by about 50 years, which indicates that only twice in a century do good seed years and proper conditions for germination exist. This combination exists more often for fir, which results in an increase of that species. Under natural conditions, pine cannot usually compete in mixed stands with the more prolific and tolerant species.

"In pure mature pine stands, considerable pine reproduction usually exists in the openings. This should be protected. The problem works down to the fact that, if we leave the slash (which might be good silvicultural practice) we will usually get a crop of pine in pure pine stands, but we may expect further insect infestations. If the slash is broadcast burned, a future crop of pine cannot be expected. A compromise should be made, and all slash piled on the tops and stumps, and burned after the first Fall rains.

"Large areas of pine reproduction represent a grave fire hazard, and to insure reproduction in the fall places, and favor the more valuable pine, seed trees should usually be marked for leaving. In a few years there will be large areas of pine reproduction, with very little merchantable timber.

"The tendency among operators is to confine their present activities to logs from Crown Granted lands and Timber sales, and to hold their own timber limits for future cut.

"The increased demand for pine results in conditions favoring the less valuable species on cut-over lands. However, with proper supervision of present cuttings and management of local conditions according to their own merits, future stands of pine will be assured. But without sound silvicultural treatment, the less valuable species or (very often) barren land will predominate."

"We are writing expressly to thank you for the valuable service of your Department in your ranger's coming down from Hutton with his fire-fighting equipment when our plant and part of our lumber was destroyed by fire a week ago. As probably you have heard, a west wind favoured us during our fight with the fire and kept it away from the bulk of our lumber which was piled in the yard. The fact that your ranger was on the spot was our only hope of saving all this lumber, which we would have been totally unable to do had the wind changed, or even ceased. Your ranger stayed with us from 3.00 a.m. till late afternoon, working the pump without intermission, and only a person who actually saw the conditions could ever realise the full extent of his valuable assistance. We will never forget this. We are proud of the Forest Branch and its members." (E. Bashaw Lumber Co., Ltd., DEWEY)

KEEPING SCHOOL.

"The fire season of 1922", writes the District Forester at Prince George, "which has undoubtedly proved the most destructive which has hit the Northern Interior within the last ten years, has brought out many facts which all parties connected with the fight will not soon forget. The deadly apathy of the general public in regard to fire prevention is one outstanding fact which has been demonstrated this year. It will take years of educational effort to change the public viewpoint and arouse a vigorously active interest in forest protection, and we must have this vital co-operation before any real progress can be accomplished."

S.L.Kessell, Conservator of Forests for West Australia, in a paper on fire control, says - "The foundation of successful fire prevention is the education of the bush worker and bush dweller. I regard this popular education of the people who live in and around the forest as sufficiently important to warrant the creation of a special branch of the Forest Department to deal with it. Ignorance and apathy have to be overcome chiefly by personal appeal."

After seeing a business man light a cigar and flip the match thoughtlessly into a corner of his office near a waste basket, a visitor wrote this paraphrase of one of Kipling's best known poems -

"If you can toss a match into a clearing,
And never give a thought to put it out,
Or drop your cigarette butt without fearing,
The flames may kindle in the leaves about;
If you can knock the ashes from your brier
Without a glance to see where they may fall,
And later find the forest all afire
Where you have passed - with no one near to call;
If you can drive your auto through the working
And cast your stogie stump into the slash,
Unmindful of the danger therein lurking,
Or homes or happiness that you may smash;
If you can leave your camp fire while 'tis glowing,
No thought of industries that it may blight,
Or of the billion saplings in the growing
Turned into charcoal ere the coming night;
If you can start a fire beneath a brush pile
When the wind is roaring like a distant gun -
You surely should be jailed without a trial,
And labelled as a lunatic, my son."

(By courtesy of the King's Printer.)

SETTLERS TO BLAME FOR ONTARIO FIRE.

New Liskeard, Ont., Oct. 11 - A flight over the fire-stricken area, which has just been completed by Provincial Forester Zavitz and other Provincial Government officials, proves beyond doubt that this was in no sense a forest fire, but a settlers' fire.

"People who passed through the fire," said Mr. Zavitz, "all remarked the fact that the air was on fire."

"When you consider the speed of the fire, the way towns caught fire as if from spontaneous combustion rather than from contact with the flame, it opens up a mysterious problem for the student of fires.

"These settlers' fires, burning gently in peat bogs, and in humus or mould made largely of coniferous vegetable matter, generate a good deal of gas, all of which does not burn.

"Is it possible that great quantities of this gas were lying about in this region when the gale blew up, or perhaps with the hot weather; actually caused a sufficient atmospheric disturbance to create the gale, or were generated in the fire in sufficient quantities to blow off the fire itself?

"This phenomenon is certainly worth looking into. And the residents of these parts may be speaking more accurately than they supposed when they said the air seemed to be on fire."

SUSAN MUSIN'

Oh, this is the song of the forester's wife,
As she struggles along through the battle of life;
No pretty certificate decking her walls,
To grade her "Class 'A'" when old Gabriel calls!

There are some who in metre their hardships narrate,
While learning the syllables, seven or eight,
In the name of a tree; and others arraign
These workers, and judge them the cause of their pain.

Now listen, I pray to the words of my song.
To all of us here must some trouble belong.
Each thinks his terrific, and sympathy seeks -
But oh, what a fate is mine, lonesome for weeks!

It has been suggested that we might take a tip from our sprightly contemporary "LIFE", and publish 'special' numbers from time to time. We think the idea is an excellent one, and we are beginning this month. This is our "LAUNCH Number". Our next 'special' (after Christmas, of course) will be a "FORD Number", to be followed by a "CONSERVATION Number", and so on. We shall be very glad to receive contributions with a view to their inclusion in one or other of these specials.

Reciprocity - "The head lines in a newspaper read - 'Two Poles Succumb To Boot-leg Liquor', while in a telephone magazine we read, 'Life of Poles Lengthened by Preservatives'; and in another article, it is noted, 'Life of Poles doubled by Proper Treating'." (From U.S.F.S. Bulletin.)

"Illicit booze," (we are quoting Bob Edwards) "adds another line to the paradox of strong drink. Old-fashioned hooch, too much was just enough. But of the bootleg stuff, not any is plenty."

Some Favourite Fiction - "Yes, I can take a drink, or I can let it alone." "No, I wouldn't go across the Street to see a Prize Fight." "I'm always glad to have a Friend tell me my Faults." "When I'm thirsty, give me a Glass of Good Cold Water every time."

We have before us a letter from a man who claims to have been incapacitated through his having over-worked himself while fighting fire. After detailing the circumstances at some considerable length, and expressing his doubts as to the fitness of his Doctor, the writer concludes with this poignant appeal - "So, God, I wish you could help me if compensation board don't."

"FOREST FIRES STILL RAGING. The forest fires are still raging in the South of France notwithstanding all efforts to check them, says the Central News Paris Correspondent. Several villages have been evacuated and a number of houses have been burned. The latest information, however, shows that the fires have not been extended, but six hundred acres of forest have been destroyed." Yes, sir - all of that!

The Fortunate Prodigal - Some years before the war, an Austrian business man died and left his two sons 20,000 kronen equally divided. The elder was a thrifty individual and added to his fortune, especially during the war. In 1919 he owned about 50,000 kronen.

The second son was a bon-vivant, a waster. He invested his 10,000 kronen in wines and had a good time drinking it all up with his friends. But he kept the empty bottles, probably because he hadn't business sense enough to sell them.

Then came the drop in Austrian currency.

Now the younger son has a lot of empty bottles which are worth far more in purchasing power than the 50,000 kronen of his brother!

"Hullo, that you Abe? Say, I want you should come over by my place tonight. We're goin' to have a big time." "Oi gewalt! I sure would like to come, Mawruss, but I guess I better stay home. I got it a case of 'Spanish flu.'" "Fine, Abe. Bring it along, bring it along. We're drinkin' everyt'ing we can get aholt of."

Lo, The Poor Indian! - "Dear sir - I telling you about my hand-logging licence. What the matter you always taking my claim away from me. You did the first time in opposite Deer Creek; so you look out don't sell this piece to someone else this little timber sale. You keep this sale for me I'll buy it, so you always taking it from me. So keep this timber sale, I'll take it, so I remain,

Yours truly -

P.S.- Dont do it again because I am an Indian. I own this place."

Our "Long-Shot". - "Fiscal Regulations" sired by Steve Barclay and damned by everybody.

The lesson that afternoon had been on Holland and the wars of the Dutch, but the children had been bored and inattentive. "You, Johnny Hogan," said teacher, sharply, "who were the people who made war on skates?" "De prohibition league, teacher."

Perverted Proverbs - "A hair on the bean's worth two on the brush."

One of our fellow toilers in this vineyard thrust his head into the sanctum a few days ago. "Hey," he said, "what's the value of pi?" "We should say it had a fluctuating value," we replied. "We have seen times when we would have given all of two bits for a good big hunk of pie, and other times (notably this morning) when we wouldn't give a plugged nickel for a waggonload of it." "Shucks! I mean the Greek letter pi." "Oh, is there a Greek letter pi? Now --" but our interlocutor had gone, probably to exploit some more fruitful mine of information.

And now today, we are asked - "What's the meaning of 'Escharotic'?" 'Escharotic', eh? Well now, lemme see - 'Escharotic' - Mmm-yes. Why, Escharotic means - means - er - why, escharotic, of course.

(Stop Press News. - "Escharotic" - from the Greek, a substance which produces an eschar, a corrosive or caustic agent. So that's that.)

We paused the other night upon the corner of
Fort Street,
To ask a simple question of the policeman on
the beat.
We said- "Why is it that you wave your baton
thus and so?"
He said- "Why, tis to regulate the traffic,
dont you know."
We said to him- "It seems to us t'would be the
proper dope
To take away your baton and provide a telescope."

He looked at us in stern reproach. Said he
"That's escharotic.
I think you've been indulging in some species
of narcotic.
Just take the post-penultimate street corner on
your right -
An' beat it while the beatin's good. Yuh git me?
Sure. GOOD-night.

(These lines are respectfully dedicated to the District Forester at Nelson.)