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## The Forestry Problems of British Columbia

By A. C. Flumerfelt, Member of the British Columbia Forestry Commission.

Let me direct your attention westward to the forest province where half the merchantable timber of Canada now stands. Let me describe to you the work of the Forestry Commission of British Columbia, and the circumstances that gave rise to its appointment. In the early days on the Pacific Coast of the Dominion the forest had little value. It was the farmer's enemy; it hindered the prospector on his hunt for gold; and the few thousand people whose settlements were scattered among the multitude of trees were hampered at every turn by the enormous growth of wood. The commercial activity of the country was oppressed by it; the forest "encumbered the land." It is true that small sawmills had begun their work, but the local need for lumber was easily satisfied, the export trade was in its infancy, and insignificant cuttings along the waterfront, on the very fringe of the ceaseless forest, supplied the logger with all the timber he could sell.

It was inevitable therefore that the Legislature of this small isolated population should have put no value upon the standing timber that it owned, and that the timber should have been given away to every purchaser of landthrown into the bargain along with the deer and the berry bushes and the scenery. In fact, even upon these attractive terms, it was by no means easy to dispose of timber land; for capital was scarce in those early days, and in any case, it was not often available for a stumpage investment that, according to appearances, might possibly require half a century to mature.

Then came the great impetus caused by the completion of the C. P. R. by which the Pacific Coast country was linked up with the rest of Canada. Population flowed in, trade improved, and the choicest tracts of the most accessible timber of British Columbia began to have a slight market value. Prompted by this, the Legislature of 1888 made the first attempt to grapple with the problem of selling forest property. It placed a price of fifty cents upon every thousand feet of lumber cut. a price that has remained unaltered ever since.

Capital, as I have said before, was very scarce in the West, and the struggling saw mill owner needed all that he possessed for the active development of his business. He could not easily afford to sink money in the purchase of timber lands. Hence that same Legislature of 1888 organized the system of leasing Crown timber; a system that gave the lumberman all the stumpage that he needed without obliging him to pay cash for it. Moreover, by granting these leases at the cheap rental of ten ecnts per acre to bona fide operators only, the establishment of new saw mills in the Province was given direct encour-

For seventeen years this leasing system continued to exist as the standard method of disposing of the provincial forests, but long before its abolition a most important change had been made in the idea behind it, which had been originally-as I have said-the encouragement of immediate sawmilling operations in the Province by grants of cheap Crown stumpage. In reality, the first step towards the construction of the modern forest policy of the Provincial Government had been made. That step was simply the granting of leases at higher rates to non-operators; the throwing open of timber lands to the investor,

And now let me summarize the situation as it existed in 1905, the year in which the leasing of timber was brought to an end; the year that saw the adoption of a new and truly remarkable policy by the Province of British Columbia. By that year, about one and a half million acres of the Crown timber lands had passed by sale or by railway grant into private ownership and out of Government control; another million acres had been transferred to lessees. Probably thirty billion feet of standing timber had been alienated. Neither of the two forms of tenure secured to the perple of the Province any satisfactory share in the future value of the stumpage they parted with for any future increase in the value of these two and a half million acres would benefit the private lessee or purchaser and not the Government. As it was very evident that the value of British Columbian timber would rise greatly in the years to come, it was most desale should be discovered for disposing of the

Crown forests. To quote the words of our report, "the legislative problem was solved in a most ingenious manner," In this year, 1905, the Government threw open the timber lands of the whole Province. It invited private individuals to join it in a partnership in each and every square mile of the Crown forests. There was no sale, no auction, even no lease. The incoming partners were asked to sink no capital. The investor was merely asked to register a formal application to become a partner with the Govframent in the timber on such-and-such a square mile of the Province-and the partnership was his. Stated in these attractive terms, the procedure sounds like some wild story of a commercial fairyland, where timber lands and wealth are given for the asking; but the truth is that a number of sound and useful "strings" were attached to these British Columbian gifts. In fact, the idea of a gift was entirely absent from the mind of the Provincial Government, The Government freely admitted investors to partnership in Crown timber, it is true, but it did so absolutely on its own terms, and it frankly admitted that only the future rise in stumpage and lumber values

would enable it to say what these terms, equitable treatment to the investor in crown

In fact, the partnership arrangement could have been stated thus: "Here"—might have said the Government-"are immense forests that will be put to no use for many years to come. They produce no revenue; they are in constant danger of destruction by fire; and it is beyond our power, financially, to give them any efficient protection. Moreover, the Province nedes revenue now, in its growing time and youth. Therefore, we will place these preme control, and we shall frame regulations from time to time, in order to make sure that the timber is properly looked after. The revenue needed by the Province and that needed for the conservation of the forest, we shall obtain by requiring investors to pay for their privileges—so much a year for their partner-ship rights and so much as royalty on any timber they may cut. As the 'market,' or prospective,' or 'speculative,' value of stumpage rises, we will take our fair share of the 'unearned increment' by requiring a larger an-nual payment to be made to us, As the profits of lumbering operations increase, we will take our fair share of these by requiring a larger royalty. To begin with, we shall require the same royalty that we have been obtaining for the last seventeen years, viz., fifty cents a thousand feet; and we shall require an annual payment of about one and three-fifth cents per

This, then, was the logic of the policy of 1905, and the result is a matter of common knowledge. Upon these extremely moderate and equitable terms nine million acres of timber land were taken up by investors within three years.

Now it is evident that no ordinary situation had been created. Nine million acres of some of the choicest timber in the world represents a property of enormous magnitude, and the transfer of this from the Government to a partnership in which a very large number of private individuals were placed in active management, gave rise inevitably to a host of most complex problems, For example, think for a moment of the difficulty of adjusting the claims of the Government, the operator and the investor upon any point where they should happen to conflict. The Government, in fact, practically gone into the timber business on a vast scale and it was faced by the triple duty of securing to the people of the province fair treatment for their forests and fair prices for the timber sold; of giving

stumpage, and of building up by wise assistance the active operations of the lumbering industry. Since 1905, this duty had become (as Stevenson has said of honesty in modern life, "as difficult as any art."

In these remarkable circumstances the government felt that the most careful and deliberate study of the situation was imperative. It placed a reserve upon all the remaining timber lands of the crown (that are variously estimated at one-quarter or one-third forests in private management under our su-, of the timber areas under provincial control, in the neighborhood, let us say, of four million acres) and it proceeded to appoint a royal commission of inquiry, composed of Mr. Fulton, who then held the portfolio of lands, Mr. Goodeve and myself.

> From the beginning, our work as commissioners fell naturally into two divisions, study of forest conditions in the Province; study of forest conditions elsewhere. By contrasting the impressions we obtained from these two sources we endeavored to arrive at a sound udgment concerning the improvements we should recommend in the forest policy and forest administration of British Columbia. We found at once, that in practical matters of forestry there was much for the province to learn. The older parts of Canada and many of the States of the Union had passed through the crude and early stage of forest exploitation at which we ourselves had just arrived; ideas and methods new to us had been well tried and proven by other governments. Ontario, Quebec, the United States Forest Service, the voluntary fire associations of the western States, each of these could show us how to do something that we ought to do.

I should be afraid to venture an opinion concerning the number of books, pamphlets and reports on forest subjects we received and digested. There was available material here and there. But on the whole, we read the voluminous literature of the beginnings of forestry upon the continent of America with a feeling akin to disappointment. We were depressed by the smallness of the work that had been accomplished and by the greatness of what ought to have been done; by the absence of experiment and investigation; and by the meagre amount of information concerning forest resources. There seemed to be so much academic discussion, so much good sentiment about consequation, and so little grow up under the imminent menace of fire,

so little expenditure of hard cash.' It was like the Scotchman's breakfast in the fishing story -a bottle and a half of the best alcohol with a half-penny bun. We grew accustomed to discussion. The expenditure of a little pu State Boards of Forestry that were all title and annual report, and no treasury.

The upshot of the matter was that we became convinced that conservation in British Columbia ought to be a very different and a very business-like affair. That is what conservation means, at bottom; the application of ordinary business principles to natural resources. It must be action and not mere talk; immediate action and expenditure of large sums of money. Hence our recommendations to the government that "large appropriations must be made and a well-manned specialized forest service brought into being, thoroughly equipped."

In the matter of conservation, gentlemen, the Province occupies a position that, looking at the history and the sad experience of forest countries, may be described as unique. Fire has ravaged certain districts; man has' wasted timber freely; but British Columbia is in the extraordinary position of being able to undertake the conservation of the public forests before and not after fire and waste have squandered the bulk of them.

We came to the broad conclusion that upon two conditions natural re-afforestation would take place in British Columbia. "Firstly," we said, "both the young growth and the old must be protected from fire; secondly, there must be exercised a firm control over the methods under which the present forest crop is being removed. In short, effective reafforestation depends largely upon effective discouragement of waste." "And," we continued, "by protection from nre we do not mean the mere temporary employment here and there of men to fight conflagrations that have been allowed to spread. We have in mind the active prevention of fire by the systematic work of a well-knit organization such as that described in our report. This work would include, as a matter of urgency, the task of evolving for each locality a sound method of dealing with the reckless style of lumbering that leaves in every cut-over area a fire-trap of debris. That the young timber upon which our whole future as a lumberproducing country depends should be left, at the pleasure of any thoughtless workman, to

practical support given to aggressive work, is so absurd commercially that an attempt as regulation is imperative.

A vexed question—this one of the disposa of debris; but one for experiment and not in lic money on experiments will soon decid whether or not it will be commercially feasible in British Columbia, as it has been other forest regions, to put an end to the li erty of careless workmen "to leave debris any manner that may suit their own conveni ence, and without the least regard for the safety of the cut-over area or or the adjoining forests.'

As for logging regulations, we felt that the time was opportune for the restriction waste. The levying of royalty upon all waste should prove an effectual remedy.

Taking a comprehensive view of the whol subject, we felt that this great timber ness of the Government of British Colum should be placed upon the soundest finance footing. Hence our recommendation that capital should be kept intact, that it should not be dissipated by treating it as curren revenue. Royalties, we felt, were true forest capital, and we urged most strongly that the should be returned to the source from whi they were produced in the form of protection for the growing crop. "No special circumstances," we continued, "that would justify departure from ordinary business principl have yet been proved to exist. General natural re-afforestation, though probable, is no an established fact in the Province, and our uncertainty regarding it will not be removed until a thorough investigation has been made by the forest service. Until definite information has been obtained, we consider it essential that no surplus of royalty-capital shoul pass into general revenue." We recommend ed the establishment of a forest sinking fund.

The rest of our conclusions, gentlemen you will find in our official report. In many a practical matter of forest protection, as have already said, our young Province ha much to learn from older communities, though it is learning fast. But in the matter of forepolicy we have no doubts and no humility We challenge the governments of the cont nent to produce a method of administering tremendous forest estate that in breadth statesmanship is comparable to the pol conceived and elaborated by the Hon. Richar McBride and his government. To have pu a stop to alienation of the public forests and yet, without alienation, to have raised the an nual forest revenue to two and a half million dollars is an extraordinary achievemen Further than this, so well thought out ha been this provincial policy, that without the least danger to the public interest the pro incial Government was able, only last year to give increased stability to the lumbe industry by granting a perpetual title those who had made investments in the nine million acres of licensed timber lands. It was possible, at one and the same stroke, to make this concession to the lumbermen and to a vance the public interest by it, for the direct effect of security of tenure was to enlist hearty cooperation of investors in the conse vation of the timber they owned jointly wi the Government.

The provincial policy, is based upon mas terly principles:

(I) No alienation of the people's forests (2) Absolute reservation of a fair share the "unearned increment" on Crown timber. (3) Partnership between the government and the lumbermen in the profits of the lur

bering industry. -(4) The judicious holding in reserve forest areas that can be thrown into the ket should any stumpage-holding monthreaten the Province.

Let me ask whether you think well government that in three short years in changed its annual expenditure in the war against forest fires from sixteen thousand to one hundred and eighty-five thousand dollars? Is there not a touch of the magnificent in this

swift recognition of a duty? And now, gentlemen, let me enlist your terest in the progress of conservation in part of Canada from which I come. The tection and the wise control of the cuttin the two hundred and forty billion feet of ber in British Columbian forests is of importance to the entire West; for this ber builds the prairie farms. Nay, furt the conservation of half the merchantal timber of Canada is a matter that affects of you. Canada will not become the gro wheat-producing country that we hope to her, the growth of a farming population millions in the vast region of the timber prairie will be hampered and discouraged less lumber can be obtained freely and chear for the building of the homes. Over-cutt in the United States will at no distant da exhaust that source of cheap supply; the ear of Canada will need its lumber for itself. proximity of coal was the vital factor the built up the iron industry, that back-bone Great Britain's commercial supremacy. proximity of timber-British Columbia time ber-will be the vital factor that shall enab the granary of Canada to produce its wheat The cheap lumber that will build the farm will be the British Columbian. In this re spect, I claim our provincial forest policy one of the national questions of Canada.

## H. M. Ships That Were in B. C. Waters

Capt. Parry, R.N., has favored the Colonist with the following interesting contribution, which is most timely. It is hoped that his request for further information in respect to the ships in these waters since 1845 will be complied with. He writes:

Sir-In connection with the list of commanders-in-chief of the Pacific station from its formation in 1837 until its abolition. that I recently sent you, I think the inclosed list of H. M. ships which are believed to have been in British Columbia waters between the years 1845 and 1905 may also be of interest to your readers.

As in the case of the list referred to above, I must preface this by stating that I am only too well aware of its probable inaccuracies, and shall be most grateful to anyone who can give me authentic information to enable additions or corrections to be made to it.

My sources of information have been so many and varied that I cannot quote them in extenso, but they include the well-known histories of British Columbia, official records of various kinds, and navy lists when available.

The commencing date of 1845 in this list will strike the reader at once in comparison with that of the first year of the commandersin-chief, viz., 1837; this is accounted for in the following manner:

The "Pacific" station as now known, was first so called in 1837, prior to them being sirable that some better method than lease or termed, I believe, the "South Coast of America" station; but although in 1837, B.C, waters were formally included in the new command, no attention was paid to this part of the station until 1845, when H. M. S. America, commanded by Captain the Hon. John Gordon, was despatched to Vancouver Island to make a report on the coast to assist the home government in settling the boundary question then pending. The officer in command was a brother of the Earl of Aberdeen, then prime minister of England, and is currently reported to have condemned the whole country wholesale, for the primary reason that the salmon here would not take a fly!

> It is a curious coincidence that the ship sent to report in connection with the great boundary question then under discussion between the British and United States governments should have been called the "America."

The Cormorant, Fisgard, Constance and Inconstant quickly followed the America into B. C. waters, as also H. M. surveying vessels Herald and Pandora, and since those days the supply has been continuous.

Such a list as this must recall much of interest to almost all residents of the coast of British Columbia, and it is to fulfil this object,

combined with the wish that a record of this kind should be preserved that I venture to for-

I. D. PARRY. Captain, R.N.

British men-of-war in British Columbia waters between the years 1845 and 1905: Albatross, 1875-8. Melpomene, 1890-3. Alert, 1858-60, 1867. Modeste, 1846. America, 1845. Monarch, 1854-7. Mutine, 1862. Amethyst, 1859. Mutine, 1882-5. Amethyst, 1875-78. Amphitrite, 1859-55. Myrmidom, 1873-6. Amphion, 1899-90 and Nymph. 1897-9 and 1901-4. Ocean, 1889-90,

Opal, 1876-8. Arethusa, 1900, Osprey, 1877-80. Asia, 1847-50. Bacchante, 1880-2. Pandora, 1846-7, Pelican, 1879-81 and Bonaventure, 1904-5. 1884-7. Boxer, 1869-73. Penguin, 1877-80. Brisk, 1853-6. 1848 and Petrel, 1872-6. Calypso, Phaeton, 1897-1903. 1858-9. and Pheasant, 1890-1901. Cameleon, Plumper, 1859-61.

Caroline, 1886-9, Portland, 1860-53, Champion, 1881-2 and President, 1853-5. 1889-95. Plyades, 1858-60 and Chanticleer, 1861-71. Charybdis, 1864 and Reindeer, 1871-5.

1869-71. Clio, 1859-65. Collingwood, 1847. Comus, 1882-3 and Ringdove, 1879, 1896-7. Condor, 1901-2. Conquest, 1886-9. Constance, 1846-9. Constance, 1883-5. Cormorant, 1846. Cormorant, 1886-9, Daedalus, 1850-3. Daphne, 1849-55. Daphne, 1889-92. Daring, 1875-8. Devastation, 1861-4. Dido, 1853-6. Driver, 8150, Egeria, 1889-05.

Forward, 1860-69,

Ganges, 1857-60.

Gannet, 1879-83.

Garnet, 1891-4.

Grafton, 1902-4

Sappho, 1882-5. Satellite, 1857-60 and 1869. 1884-5 Satellite, 1894-7. Scout, -1866-67 1871-3. Scylla, 1871-3. Shah, 1876-9. Shannon, 1879-80. Shearwater, 1867. Shearwater, 1902-5. Sparrowhawk, 1866-72. Sparrowhawk, 1897-Espiegle, 1889-91. Sutlej, 1862-66, Fantome, 1875-8. Swift, 1852. Fawn, 1871-3. Swiftsure, 1882-5 and Fisgard, 1846. 1888-9. Flora, 1903-5. Tartar, 1860-2.

1871.

Repulse, 1872-6.

Rocket, 1875-82.

Tenedos, 1872-6.

Termagent, 1860.

Thetis, 1879-82,

Thetis, 1879-82.

1867-8.

Topaz, 1869-62 and

Royal Arthur, 1893-6.

Grappler, 1860. Havannah, 1855-0, Hecate, 1861-3. Herald, 1846-7. Heroine, 1883-5. Hyacinth, 1886-8 and 1893-5.

Icarus, 1889 and 1896-1902. Imperieuse, 1896-9. Inconstant, 1846, Kingfisher, 1881-4. Leander, 1897-1900. Malacca, 1866-7. Magicienne, 1857.

1899-1902. Wild Swan, 1885-8 and 1895.7, Zealous, 1866-72. Note.-The repetition of a ship's name in this list indicates that the later was a new

Tribune, 1869-60 and

Triumph, 1879-82 and

Warspite, 1890-3 and

Trincomalee, 1853-6.

Turquoise, 1878-80,

Virago, 1897-1903.

Virago, 1853-5.

Vixen, 1857-60.

1862-3.

1885-8.

H. M. S. Egeria, Ganges Harbor, B. C., 1905. "Funny thing happened in my town last

week," said the chatty man in the railway car-"What was that?" asked the interested individual.

"Black, a white man, and White a black man, thought a fellow named Brown was pretty green, and tried to sell him a white horse. But Brown deceived them both-in fact, he got all the money they had."

"And now?" And now Black and White are blue."

In a western university the dean of the institution was told by the students that the cook was turning out food not "fit to eat." The dean summoned the delinquent, lectured him on his shortcomings, and threatened him with dismissal unless conditions were

bettered. "Why, sir" exclaimed the cook, "you oughtn't to place so much importance on what the young men tell you about my meals. They come to me in just the same way about your lectures!"

'Yes," said Tom Poorman, "I've been invited to her wedding, but I'm not going." "But," urged his friend, "do you think you can afford to have your absence noticed?" Better than I can afford to have my presents noticed. That's the trouble."

"Why do you say so positively that a man can't do wrong by marrying a widow?" "Why, it's plain enough that if a man marries a widow he don't marry a miss."

loyed as a draugh Works at the foot hat time this firm of the Pacific Mai It had been sa to know that ther making a machine luminating purpos mixture of a unifo discovered no less of accomplishing regulating device sion of the air du it was carbureted produced a pressu allowed air to pass into the pipe lead other system, the ated by the specif

this purpose a cy scale beam in the rich, the cylinder movement a valve the air around the machine of this ty Iron Works for th ticut, of which Bill was followed by a gasoline was first heat under a press square inch. The to force the neces This machine mad form density and came into general New York post of Home, New Yo mills were equi and one with a ca installed at Sarato the Grand Unio and the Windsor Later on, Sir

electricity, made out many patents. and put up the Saratoga Springs ventor of the sys incandescent ligh covered a process izing the filament them electrically phere of hydro-ca a new process dride, reducing ! ty cents per po lator for keeping electric lighting of the number of apparatus was ex Sir Hiram was

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Legion of Honor

that an America workshop in made a machine and fire itself, a minute, from end wder, the pul altogether too go gun was very came to see it, Over 200,000 ro cartridges were visitors. This the first rank of that as he had lem that he mi At that time about to pay a the secret of the

powder. Many