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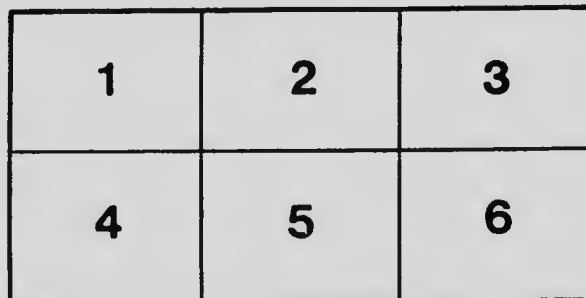
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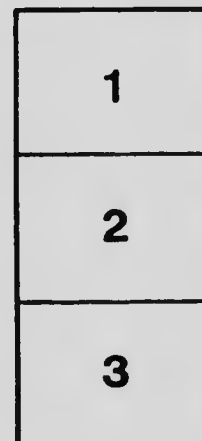
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Hints to Capitalists on the Value of British Columbia Timber.

Whatever effect financial conditions may have on her other many natural resources, British Columbia can rest easy as to the present and greater ultimate value of her great timber resources—only a satisfactory conclusion can be drawn from the widespread interest and discussion of the important questions of the world's timber supply and reforestation now being promulgated throughout the United States. We can readily understand why this Province is attracting such close attention on the part of American capitalists, when our gratifying position, if what experts claim is correct, is carefully analyzed: perusal of the clippings from various publications giving the carefully worded opinions of the best authorities on the Continent must prove interesting and educational:

"In twenty years," says Mr. Gifford Pinchot, the National Forester of America, "the timber supply of the United States will be exhausted at the present rate of consumption." Note this calculation refers only to "present rate of consumption"—the United States' population is now about ninety millions and increasing at the yearly rate of more than five millions from the natural additions to its population, and the great number of immigrants pouring continuously into the country: in ten years the population of the United States will be one hundred and forty millions—if the consumption of timber last year averaged 600 feet per capita, or fifty-four billion feet, on the same basis of calculation it will be increased to eighty-four billion feet in ten years. According to Dr. Judson Clark, another eminent authority, since 1887, notwithstanding the fact that Great Britain is one of the largest consumers of iron, steel and cement, its consumption of timber has increased forty per cent. North America in 1850 consumed 200 feet board measure per capita per annum, which in 1906 increased to 450 feet board measure, and last year reached nearly 600 feet board measure per capita—at this rate of increased consumption, Mr. Pinchot's estimate of the duration of the available supply will be reduced to less than fifteen years!

While reforestation is occupying the attention of Congress, the question of what results can be obtained and its effect on our markets naturally occurs to those interested. The yearly growth of timber has been found not to average above twelve cubic feet per acre, equal to seven billion cubic feet, but as deforestation is going on in the United States and Canada at the rate of one hundred and twenty billion feet board measure per annum, the results may easily be determined.

According to last year's estimate, British Columbia cut nine hundred million feet of manufactured timber, valued at about \$20,000,000. When we consider the estimated quantity of timber in British Columbia, which by some authorities is placed at from seventy to one hundred billion feet, *more than half of which is on Vancouver Island*, our supply should at the present rate of cut last seventy-five or eighty years, but when the American lumbermen commence in earnest to draw upon our resources (*and conserve what little they have in the East*), which they are shrewd enough to see will pay them to do immediately and which they have already started, it is easily understood why timber investments in British Columbia appeal so strongly to American capitalists. When we consider the fact that four-fifths of the timber of North America, including Canada, is held by private interests either under licence or in fee, and that about three-fourths of the timber in British Columbia is now in the hands of our American cousins, coupled with the fact that their own holdings in other parts of North America are controlled largely by trusts and will be exhausted in a very few years, and that the duty of \$2.00 per thousand board measure must soon necessarily be taken off lumber, it behooves the people who are the fortunate owners of timber in British Columbia to hold it and increase their holdings, as the increased value due to the larger market of ninety millions of people to the south without timber, together with the world's new market that we will certainly reach by a short route in a very few years by the completion of the Panama Canal, will render British Columbia's timber like "Pharaoh's corn," a commodity that the world must have, and will come for.

While efforts have been made to attract British capital to British Columbia, the shrewd Americans are on the ground securing all the timber they can get hold of, knowing full well that it will be a matter of a very short time before they will be dictating the price for what we have owned, talked about and admired, but alas, let slip through our fingers. However, this is simply history repeating itself; we can but heartily welcome the American capital, as it will as usual, result in the immediate development and establishment of large industries in the country, and which the inhabitants of the Province generally will benefit by.

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Read carefully the opinions of the Continent's most brilliant experts and authorities on the great and important question of the available timber supply of the United States and Canada—profit by them and secure now while the opportunity is afforded, timber lands in British Columbia, which country will be without a doubt within a few years the great emporium of the world for timber supplies.

EXTRACT--

"It will be noted that according to the census affecting the United States, the present annual consumption of timber is between one hundred billion and one hundred and fifty billion feet; and apparently it is safe to calculate that at the end of twenty years the supply will be exhausted, and the annual increase of consumption if abnormally increased will result in this occurring earlier than this calculation."

EXTRACT--

As to Canada: "The exhaustion of the supply of *tie timber* in a little more than a decade—and a *pine timber* famine in twenty years was predicted by Mr. Mitson, of the Province of Ontario Department of Lands and Forests"—the annual cut of timber in Ontario appears to be about nine hundred million feet, "at the present rate of cutting this would indicate a pine famine in twenty years."

"The Railway and Engineering Review," Sept. 12th, 1908.

Lumber Production in 1907.

Figures of the lumber cut in 1907, compiled by the Bureau of the Census and the Forest Service showed the largest total ever reported in the United States, exceeding by over seven per cent. the cut reported for 1906, until then the record year. This does not necessarily show a larger actual cut than in 1906, for the returns obtained last year were more complete than ever before. In 1907, 28,850 mills made returns, and their production was over forty billion feet of lumber. This is believed to include ninety-five per cent. of the actual cut. In 1906, 22,398 mills reported about thirty-seven and a half billion feet. But although nearly twenty-nine per cent. more mills reported last year than the year before, these are almost all mills of small individual output.

The South is the region of greatest activity in lumber production, and yellow pine the most important wood, forming thirty-three per cent. of the entire cut of the country. The cut of yellow pine reported shows an increase of thirteen per cent. over that of 1906. In the early part of the year many of the southern mills cut so heavily that, in spite of the curtailed output which followed the business disturbance later, the total was greater than ever before. But in the Lake States and the Northwest a smaller cut was reported than for 1906, though the number of mills reporting increased. In the Lake States the falling off evidenced the waning supply of white pine. Michigan, which for many years led all the States in lumber production, and then gave way to Wisconsin, sank in 1907 from fourth to seventh place, while Wisconsin went from third to fifth. Minnesota as late as 1905 held fourth place. Last year it went from seventh to ninth. It was not until the later 90's that the south displaced this group of states as the most important source of lumber supply. During 1907 Washington fell off very decidedly from its huge cut of 1906, while Oregon showed a slight increase in its total.

Lumber prices have been steadily going up during the last half century, yet the per capita consumption of lumber has also been increasing. In 1850, according to the best figures obtainable, the average consumption to each person in the country was 250 feet; in 1900, 460 feet; and in 1907, 480 feet. In 1908, 600 feet.

"Colonist," Victoria, B.C., Oct. 9th, 1908

The Timber Supply.

A very remarkable estimate has just been sent out by the United States Government. It is in relation to the supply and consumption of timber in that country. The figures show a very great variety, but all the experts, who have made calculations, agree that the supply is only good for a comparatively few years. The lowest estimate is thirteen years, the highest twenty-three. We quote from an abstract of the report:

The importance of this census lies largely in the fact that it will give an accurate basis for computing how long our timber supplies will last. The consensus of opinion among those equipped to judge is that the present annual consumption is about 100,000,000,000 board feet, or something more than that. One leading authority has placed it as high as 150,000,000,000 board feet.

Assuming a stumpage of 1,400,000,000 feet, an annual use of 100,000,000,000 feet, and neglecting growth in the calculation, the exhaustion of our timber supply is indicated in fourteen years. Assuming the same use and stand, with an annual growth of 40,000,000,000 feet, we have a supply for twenty-three years. Assuming an annual use of 150,000,000,000 feet, the first supposition becomes nine years, and the second thirteen years. Assuming a stand of 2,000,000,000,000 feet, a use of 100,000,000,000 feet, and neglecting growth, we have twenty years' supply. Assuming the same conditions, with an annual growth of 40,000,000,000 feet, we have thirty-three years' supply. With an annual use of 150,000,000,000 feet, these estimates become, respectively, thirteen and eighteen years.

Nothing can be more convincing than these figures of the necessity for the adoption of a policy of forest conservation in Canada.

"Colonist," Victoria, B.C., Oct. 4th, 1908.

Forest Preservation.

We are glad to find the Toronto World devoting a good deal of attention to the question of forest preservation. This is excellent work, and even during the heat of a political campaign there ought to be time to give it consideration. Fortunately it is not a political question, and therefore it can be discussed without feeling. The people of Canada are not, as a rule, laying as much stress as they ought to upon the necessity of taking steps to protect the forests. In the United States public opinion is much more aroused. The World says:

All over the States, chambers of commerce, scientific societies, forestry experts, the wiser sort of lumbermen, national clubs and other public bodies are bestirring themselves to create a healthy public opinion in support of an enlightened and thrifty forest policy. This, too, not alone for manufacturing and industrial purposes, but on account of the extraordinary benefits forests bring to agriculture and to the nation at large by protecting against floods, sustaining water powers and climatic conditions, improving the public health and preserving natural beauty. Memorials have been and are being presented to Congress urging the further creation of forest reserves, and the staying of the devastation that has been proceeding for decades in regions such as the Appalachian and White Mountain ranges. As frequently happens, there are peculiar constitutional conditions in the United States that present obstacles to congressional action, but the movement in favor of effective action is general and strong.

The press of Canada ought to endeavor to bring the people of the Dominion up to a proper appreciation of the need of action. We suppose that the close proximity of the forest to nearly all our settled areas renders it difficult for us as a people to appreciate that a timber shortage is measurably near, but such is the plain and simple fact. As yet we have the great forest preserve of the civilized world. Surely it would be wise to maintain it as a national asset.

Victoria "Times," April, 1908.

Timber Situation in Eastern Canada.—Exhaustion of the Supply of the Timber in Ontario is Threatened.

The exhaustion of the supply of the timber in a little more than a decade, and a pine famine in twenty years, were predicted in a paper read before the meeting of the Ontario land surveyors, recently, by Mr. J. F. Whitson, of the surveys branch of the department of lands and forests. This contingency the author of the address contended, could only be averted by action to protect the forests.

Mr. Whitson discussed the consumption of railway ties in Canada, where there were 27,600 miles of railway. The demand was for 12,000,000 ties a year, and the average life of a tie was seven years. In Ontario, according to the present rate of construction, the railway mileage would be increased in five years to 9,000 requiring 4,000,000 ties annually, or from 26,000,000 to 32,000,000 feet, board measure. The demand was increasing, and the supply was diminishing. "Our duty as a business proposition is to protect the timber forests of Northern Ontario and to find some method whereby the life of a tie will be prolonged," said Mr. Whitson.

In the Rainy River and Thunder Bay districts there were 25,000,000 acres of land bearing jacy pine, spruce and small tamarack, which if properly protected, would produce millions of ties. In addition, there were 5,000,000 acres in Algoma and Nipissing and other districts, making in all 30,000,000 acres, under li-

censes or on agricultural land, which could be made tie-producing. With the present cut there would be a famine in twelve to fifteen years. Outside the forest reserves, there were 70,000,000 acres of land producing timber, of which 4,000,000 was virgin forest, and 30,000,000 had been burned over. The annual growth should be 3,500,000 cords, worth, at 60 cents a cord, \$2,500,000 a year.

The forest reserves included 10,500,000 acres of land, and on the crown land there were thirteen billion feet of pine still standing. On lands under license there were several billion more. The annual income of the province was about \$1,500,000, and the annual output 750,000,000 to 900,000,000 feet of timber. "At the present rate of cutting this would indicate that a pine famine in twenty years. With proper provision the annual growth should meet all future demand," asserted the speaker.

Beyond the height of land there was an immense area of pulp wood forest through which the Grand Trunk Pacific would run, and divided by several great rivers. These would serve to float logs and to supply water power. The annual growth, if protected from fire would produce more pulp than wanted to meet the demand.

America's Timber.—Only Twenty Years' Supply Left.

"In twenty years," says Mr. Gifford Pinchot, the National Forester of America, "the timber supply in the United States on Government reserves and private holdings, at the present rate of cutting, will be exhausted, although it is possible that the growth of that period might defer the arrival of the famine another five years.

"The danger of the situation should not be underestimated. The United States uses more timber than any other country, and every man, woman and child will be affected.

"About one-fifth of the forest area of the country is in Government reserves; but, as privately owned timber lands are better than the Government reserves, as a general rule, the Government will make additional efforts to educate the people.

"Only a little time—only a very little time—has passed since those who were dealing with the greatest pine region ever lumbered—the forests in Wisconsin, Michigan and Minnesota—declared them inexhaustible.

"Exactly the same language is being used now with regard to the great forests of the Pacific Slope. And yet the white pine is so nearly gone that twenty-five per cent. less wood was cut last year than was cut in 1906.

"The limit has come to these 'inexhaustible resources.' Not only are the forests as a whole being depleted, but some of the most important are already gone.

"Consider the great north-eastern pine belt. To-day barren, worthless wastes replace millions of acres of what were once the richest, most valuable timber lands to be found on the continent, except, possibly, certain lands on the Pacific Coast.

"For years past more money has been paid by the State of Michigan to advertise for sale lands that were enormously valuable while the white pine was on them than the lands are now worth according to the prices received in the sales. Instead of being almost the most productive timber lands in North America, those vast tracts are now absolute deserts, pauperised, beggars, a charge upon the State."

It is a fearful picture that the national forester presents of the years of the famine that is to come—that is already at hand:—

"With absolute certainty, a very severe timber famine is approaching—indeed, is already beginning to be felt. The business disturbances of last year interrupted, for a little time, the rapid rise in the price of lumber; but that rise must begin again, and soon.

"The forest service has demonstrated that we use 100,000,000,000 feet of lumber a year; and we have only 2,000,000,000,000 feet of timber in existence. No nation in the world depends upon its trees as we do; Europe gets along with 60 feet per person; we use 450 feet. We are over sevenfold more dependent.

"Every man, woman and child in the United States is going to feel the famine. There is no industry, no corporation, no individual, no form of activity in our life which can escape being affected by the size and condition of the forests."

Inventory of U. S. Forests.

Detailed Investigation gives Facts which are Startling to Americans—Report by Senator Smoot.

Senator Reed Smoot, of Utah, chairman of the section of forests of the National Conservation Commission, has submitted the inventory of forests. This report went minutely into the forest resources of the United States and offered for the consideration of the joint conference certain resolutions whereby the public domain of the United States may be protected against wastes. In part the report is as follows:—

“Next to our need of food and water comes our need of timber. Our industries subsisting wholly or mainly upon wood, pay the wages of more than one and one-half million men and women.

The yearly growth of wood in our forests does not average more than twelve cubic feet per acre. This gives a total yearly growth of less than 7,000,000,000 cubic feet. We take yearly, including waste in logging and in manufacturing, 23,000,000,000 cubic feet of wood from our forests.

We use each year 100,000,000 cords of firewood, 40,000,000,000 feet of lumber, more than a billion posts, poles and fence rails, 118,000,000 hewn ties, 1,500,000,000 staves, over 133,000,000 sets of heading, nearly 500,000,000 barrel hoops, 3,000,000 cords of native pulpwood, 165,000,000 cubic feet of round mine timbers, and 1,250,000 cords of wood for distillation.

Since 1870 forest fires have each year destroyed an average of 50 lives and \$50,000,000 worth of timber. Not less than 50,000,000 acres of forest is burned over yearly.

One-fourth of the standing timber is left or otherwise lost in logging. The boxing or long-leaf pine for turpentine has destroyed one-fifth of the forests worked. The loss in the mill is from one-third to two-thirds of the timber sawed. The loss in the mill product, through seasoning and fitting for use, is from one-seventh to one-fourth.

Only 320 feet of lumber are used for each 1,000 feet which stood in the forest. We take from our forests each year, not counting the loss by fire, three and a half times their yearly growth.

Our lumber cut has increased less than fifteen per cent. in the last seven years. But the average price of all kinds of lumber at the mill has risen forty-nine per cent., and the rise will continue.

After Canada's Forest Wealth.

“We have already reached the verge of a timber famine so severe that its blight will be felt in every hamlet in the land,” Theodore M. Knappen, a real estate dealer, of Minneapolis, at to-day's hearing. “In five years every saw-mill in Minneapolis will be abandoned; yet this industry in its prime employed 5,000 to 10,000 men.” He spoke for a repeal of the duty on timber, saying that American labor had nothing to fear from free trade, as Canada labor was as high as in this country. Mr. Knappen said he represented the National Forest Conservation League.

“The red cedar and fir of the Pacific Coast, the California redwood, the Gulf cypress and the pine from the South, are now filling our lumber yards,” says Professor Roth, of Ann Arbor, Michigan.

“We are now cutting timber from the forests of the United States at the rate of 500 feet board measure for every man, woman and child,” says Mr. Treadwell Cleveland, Jr., in a circular recently issued, treating of the natural resources of the country. “At this rate,” he continues, “in less than thirty years, all our remaining virgin timber will be cut.”

For its Preservation.

Dr. Fernow's Presentation of the Situation.—Canada should make the most of Timber Resources.

In the October number of the Canadian Forestry Journal, Dr. B. E. Fernow, dean of the faculty of the forestry of Toronto University and formerly chief of the forestry bureau of the United States department of agriculture, has leading place with an article on “A Forest Policy for Canada.” It was originally addressed to the Lumbermen's Association of Western Nova Scotia, and offers a strong and convincing plea for conservative forest management, which was reiterated by him in his address to the Canadian Club last week. Introducing his main thesis Dr. Fernow briefly reviews the timber resources of the world as regards the woods

that are chiefly used by northern nations. There are only four or five countries in Europe that export timber, of which the principal are Russia, Sweden and Austria-Hungary, which with United States and Canada and in addition to their home supply, have practically to meet the needs of the importing countries. Although if the European forest areas were economically managed it would not be an impossibility to supply from them the present European requirements, hardly one-half is under management, and in Dr. Fernow's opinion the time will soon arrive when Europe will have to rely on America for its needs.

In America, however, the conditions, in his view, are not much more promising. The consumption of sizeable material in the United States is at least seven or eight times that figured for Europe—one hundred cubic feet per capita. Total cut for 1906 in the United States was forty billion feet B. M., valued at \$650,000,000, besides laths and shingles to the value of \$37,000,000. Outside of fuel wood the value of the whole cut was nearly \$800,000,000, representing not less than eight billion cubic feet or one hundred cubic feet per capita as against thirteen cubic feet consumption by the European people. As regards the United States reserve of timber Dr. Fernow's own calculation, which made the standing timber 200 billion feet B. M., is still the highest estimate, and in accepting it Mr. Gifford Pinchot, the present chief of the forestry bureau foresees a **COMPLETE DEPLETION IN TWENTY YEARS**. Though Dr. Fernow expects a large increase of supplies due to reduction of the standard to which logging is done, he declares the outlook to be very alarming even if the estimates were doubled. Yet he considers the consumption can be easily reduced to one-sixth of the present quantity.

Canada, Dr. Fernow says, is the only country that could eke out deficiencies in the supplies of the United States, since the vast areas of wood in Brazil and other South American countries cannot be used as a substitute for soft woods. As regards Canada's timber resources he holds profound ignorance and misconception prevails. Venturing a guess for which a basis can be given he estimates the commercial forest resources of British Columbia at 80,000,000 acres, and those of the eastern districts at 150,000,000 acres. The conclusion is that for Canada as well as the rest of the world the time has arrived to consider seriously the propriety of better management of their timber resources. This is of very great importance to Ontario, as to which province Dr. Fernow has satisfied himself that two-thirds of its area is destined to remain for ever timber country, if not waste. The latter alternative will be certain enough if present lumbering methods continue, with "wasteful lumbering and no one concerned in the future conditions, allowing fire to run and destroy any attempt of nature to recuperate." Another result will be a timber famine and a disturbed water flow.

Timber Resources Discussed.

Dr. Judson Clark speaks before the Canadian Club on Timely and Interesting Topic.

Contrary to the popular impression, civilized peoples are everywhere using more wood to-day than ever before, and that notwithstanding a greatly increased cost price. Not only is the consumption of wood products increasing in the aggregate, but the per capita consumption is also increasing. Great Britain's consumption illustrates the tendency in all modern countries admirably. Great Britain is a country lacking in forests, but rich in all substitutes for forest products. It is a country of cheap coal, cheap iron and steel, and cheap cement. Its wood supplies are all imported and therefore dear. At the 15 years, 1887-1901, saw an increase in the per capita consumption of lumber of 10 per cent and of wood pulp and paper to over 300 per cent. In 1850 the per capita consumption of lumber in North America was about 200 feet board measure per annum. In 1906 it had risen to 450 feet, and last year exceeded 470 feet board measure. Further illustration of this tendency might be drawn from Germany, Switzerland or any other country which keeps statistics, and all to the same effect.

The climate of British Columbia, and more particularly that west of the Cascades, is unsurpassed for wood production in the whole world. (Applause).

Trees delight in an abundance of moisture, both in the soil and in the air, and here they get it. (Laughter). Another climatic feature of the greatest importance is the long growing season. In the East there are at most not more than seven months of growth activity, here on the Coast there are twelve, for every winter's day which sees the thermometer above the freezing point witnesses a storing up of a reserve food in the green needles of the trees preparatory to the next season's growth. As a result, the terminal shoot commonly reaches upward from two to three feet in a season as compared with about one-third to one-half that growth in the East.

As to the present stand of timber, I can but give an estimate that is little more than a guess. It may, however, be useful for those who know less about it than I. There are held under the sixteen and twenty-one year timber licences about 11,000 square miles. I think all will agree that ten million feet board measure per square mile will be a liberal average estimate for these lands, or one hundred billion altogether. There are nearly 800,000 acres under lease and perhaps a million acres more of commercially valuable timber land owned in fee. Assuming a cut of 40,000 feet per acre, these lands will yield a round seventy billion. Then there are the reserved lands. These lands comprise not only such as carry timber now merchantable, but such timber as may come to be regarded as merchantable in future years. The area of such lands west of the Cascades cannot exceed the area now under licence in that region. The interior has not been so thoroughly explored, and it may be that the area of reserved timber land may exceed that now held under licence two, three and possibly four fold.

Assuming then that the productive lands of the reserve will be equal in area to the licensed lands of the Coast and four-fold the licensed area in the Interior, the total productive area reserved should be in the vicinity of standing timber in the Province, approximately half of which is merchantable under present conditions of 28,000 square miles. Assuming a cut of five million per square mile for this area, there would be a round one hundred and forty billion of reserved timber, or a grand total of three hundred and twenty billion. This would be in my judgment an outside estimate.

There are, of course, two ways of looking at this enormous total—the optimistic and the pessimistic. The optimist will point out that at the present rate of cutting we have timber for four centuries. The pessimist will remark that the entire stand, accessible and inaccessible, would supply the lumber mills of the continent with logs for less than seven years, and if other users of wood were to draw on us for their supplies, our forests would scarce meet the requirements of North America for three short years.

For my part, I must confess to pessimism, for it has been the experience of the past that when an inexhaustible forest gets up against an insatiable demand it has always gone hard with the forest. (Applause).

But there is a very real sense in which the forests of British Columbia may be made inexhaustible. Forests managed so as to yield a succession of wood crops in perpetuity are essentially inexhaustible so long as soil and climate endure. (Hear, hear). And there is no country on the face of the earth where the natural conditions are so favorable for securing wood crops in perpetuity as the Pacific Coast of North America.

You will be interested to know what annual yield might reasonably be expected from British Columbia's twenty million acres of permanent forest lands. From what measurements I have made in this Province and what has been accomplished elsewhere under less favorable climatic conditions and with poorer kinds of trees, one can confidently say that an average yield of two hundred feet board measure per acre per annum would be a very conservative estimate. This would mean an annual production of four billion feet, or some five times our present annual cut.

The Area of Standing Timber in the Provinces of British Columbia.

The United States lumber journals are laughing at the estimate of some of the British Columbia statisticians as regards the extent of the standing timber of this province, says the Western Lumberman. One thing is evident, that the United States mill men themselves, at least a great many of them, have practically demonstrated to their own satisfaction that there are still available vast areas of fine timber on the Canadian side of the Pacific Coast; and what is more, have managed to get control of about 75 per cent. of all the old Crown granted timber and license timber on the market.

But this is straying from the subject—the extent of the standing timber of British Columbia—one man who roamed the forests of British Columbia for twenty years in search of timber and who is now in close touch with the industry as a Government official was asked to give an approximate of our standing timber. He said that no man could do that with an idea of coming near the truth. He had, however, thought a great deal on the subject and then he began figuring on a slip of paper, and pointed to the sum he had figured out. It was 72,000,000,000 feet. He was asked to explain his figures. He said that he had been in the business for a generation and had watched the depletion of the forests from year to year, and after much thought had decided that in 80 years the timber of this province would be exhausted.

The cut last year, which was a very heavy one, and would be much larger this year, was 900,000,000 feet and this multiplied by 80 would make the total cut in 80 years, taking last year as an average, 72,000,000,000 feet; or if the forests lasted a hundred years, 90,000,000,000 feet.

This is what the Pacific Coast Lumber Journal says of our standing timber: "Statements about British Columbia are quite numerous. They have not yet reached the statistical point. There is a regular evolution on standing timber statistics. First comes the wise man from the east; he sees a big tree and is told it contains so many thousand feet of lumber. In short order he is prepared to make an estimate of the amount of standing timber in that country. Then comes the secretary of some publisher, last of all comes the government official who, with much red tape, many unstamped statistical inquiries, much experting and summarizing, the official figures are prepared. Last of all, the sawmill man goes to work and after all has been cut—according to statistics—there is much left. For a number of years statements of a *wildcatter* from the east was accepted as to the amount of standing timber in the state of Washington. His guess was 650,000,000,000 feet, which went unchallenged for some time. Later the government started in and cut the guess down to about twenty per cent. Later it was raised to the generally accepted statement of 200,000,000,000 feet. No one who is conversant with timber conditions believe, however, that this is anywhere near the correct amount. Too high!

B. C. Timber Situation.

There has been Great Rush for Limits. Great Revenue Producer must be Preserved.

That the last great stand of coniferous timber in the world is to be found in British Columbia is beginning to be realized by lumbermen throughout this continent at last, and during the last two years more particularly there has been a great rush to secure control of the forests of the province. The timber seekers have come mainly from the United States, where the scarcity of virgin forests is beginning to be felt acutely, but many Canadian timbermen have been attracted by the phenomenal yields and high products of the British Columbia forests, and have invested largely in standing timber. The yield of from 20,000 to 100,000 feet per acre is not at all uncommon, nor is it uncommon to get single trees yielding 5,000 to 10,000 feet. Any one possessing the idea that British Columbia is covered with such forests, however, will be greatly disappointed, for the supply is far from inexhaustible, and is situated chiefly in rather narrow valleys between ranges of rugged mountains. It would be a safe estimate that not more than ten per cent. of the total area of British Columbia is covered with forests yielding over 20,000 feet per acre.

As a world's supply, the forests of British Columbia are particularly well situated, so much being either right at salt water or tributary to it, and when the Panama Canal is completed the markets of Europe and Eastern America will be made still more accessible to British Columbia lumber.

As a revenue producer the forests far surpass all other assets in the province. The output of the mines during the last year was valued at \$25,000,000, and yielded a revenue of \$200,000. The cut of timber is estimated at 900,000,000 feet, valued at about \$20,000,000, but it yielded to the government a revenue of nearly 2,000,000. It must be borne in mind, however, that this revenue does not all come from the timber cut, but that about \$1,500,000 comes as an annual ground rent from timber lands, and is an assured revenue whether the forests are exploited or not. The remainder was collected in the form of royalties, hand loggers' licenses, etc.

The government at first disposed of its timber in the form of Crown grants or leases, which are practically interminable, and to which there is attached very little ground rent. During the last four years the timber has been taken up under special licenses, which are annually renewable for 16, at first, but since 1905, for 21 years, for which an annual ground rent of \$115 per square mile for lands east, and \$140 for lands west of the Cascades is charged. Under this system about 11,000 square miles of timber land had been taken up, with the result that the best accessible timber of the province has been alienated.

Vancouver Man on Forestry Work.

Dr. Judson F. Clark declares that World will soon be looking to British Columbia for Timber Supply

Canada and the United States are now called upon to supply the world with timber in a practical sense. Yet the United States is at present using half of the sawn timber of the world, and at the present rate with a couple of decades she too, would have to import.

It therefore devolved upon Canada to settle the timber problem of the world with her acreage, which could not be estimated, and which was put all the way from 250 to 550 millions of acres. In the Eastern States a second growth was springing up, but it could not be considered as a factor in the world's timber problems,

and the greatest belt that the earth had ever known, in Michigan and Minnesota, had been wiped out by the axe and fire until at the present day the conditions resembled those of the prehistoric east, where the forests were wiped out and the deserts now mark where the waving trees stood.

In the Southern States and on the Pacific Coast there was a big supply, but it would not last long. Canada, therefore, and particularly the great north, Ontario and British Columbia, must meet the demand, and at that, Ontario with her thirty billion feet of white pine, played a small part, as this would but for six years stand the onslaught that was made in Michigan and only some years longer stand the present rate of use.

On the great north and the Pacific Coast with its Douglas fir Dr Clark looked to deal with the whole world. Transportation was made the great problem, but in a few years with the Hill road, the G. T. P. and the C. P. R., the timber would come out in large quantities. Later, too, the Panama Canal would permit of steamship routes with all ports of the world, whereas now only sailing vessels could afford to make the trip around the Horn.

"Province," Vancouver, B.C., August 19th, 1908.

American Discusses Great Value of Coast Timber.

Alabama Railway Magnate Urges Measures Here to Prevent Waste.

Valuable Object Lesson.

Ten Years will Witness Exhaustion of Yellow Pine in Southern States.

"In its standing timber British Columbia has an asset of almost incalculable value. If the people of this province and the Pacific Coast States generally would only realize this they would adopt the most stringent regulations for fire protection, and enforce methods tending to preserve the present ruthless waste in connection with lumbering operations," said Col. E. L. Russell of Mobile, Ala., to The Province at the Hotel Vancouver to-day.

Col. Russell is the vice-president and executive head of the Mobile and Ohio Railway, which extends through Alabama, Mississippi, Tennessee and a portion of Illinois to St. Louis, Mo. The system has a mileage of twelve hundred miles, and taps large lumber and mining regions of the Southern States. He has made a study of the lumber industry as well as other features of the economic life of the large territory tapped by his railway. He is now on his way home via the Canadian Pacific Railway after a tour across the continent over the Northern Pacific. The colonel is travelling in a private car and is accompanied by his family. Stops will be made at various resorts in the Selkirks and Rockies.

Importance of Lumber Trade.

"The Mobile & Ohio the year before last showed gross earnings of eleven million dollars, twenty-five per cent. of which was derived from the carriage of lumber. What bearing has that on the preservation of the timber wealth of British Columbia? Well, just a little lesson this province may gain from our experiences in the south. The cutting of our yellow pine areas has been going on so fast that the industry will not be a factor eleven or twelve years hence. Lumber from the Pacific Coast meets ours in competition in the middle west. Do you realize what Pacific Coast timber will be worth when our forest wealth, little more than a decade hence, will be a thing of the past? Of course, the financial panic created a temporary lull in the lumber markets, but already conditions are getting back to normal. Lumber is the first to feel the effects of tight money and the last to recover. It is therefore significant, that the demand for cars last month showed a marked increase over the previous six months. I take it that times will improve rapidly all over the country despite the impending presidential election. So assured are railway managers over the outlook that they are getting ready for a big freight movement. The south will be the first to feel the revival, as the cotton, grain and tobacco crops will be very abundant.

Twenty years ago timber down south could have been bought for a mere song. I know of an instance where a party recently refused \$30 an acre for a thirty thousand acre pine tract that was acquired not many years ago for \$1.50 an acre.

Changes in Eleven Years.

"Vancouver has made giant strides since my last visit here eleven years ago. Its future as a seaport is second to none on the Pacific. There is no escape from this conclusion owing to the city's geographical sit-

uation, railway facilities and magnificent harbor. It may not be generally known that an enormous volume of raw and manufactured cotton shipped from points on our line and in transit to Japan is shipped from Vancouver on the Empress liners. We haul this freight to St. Louis and transfer it to the C. B. & Q. which in turn passes it along to the Soo line and the C. P. R."

Col. Russell has the soft voice and polished manners of the cultured southerner. A veteran of the Civil War, he engaged in half a hundred battles on the Confederate side during a period of four years. He is still active and energetic. It was rather novel to hear a Southerner denounce the treatment the colored people are receiving at the hands of mobs in the Northern States.

"Such a thing as the Springfield outrage would be impossible in the South because the white man and the negro understand each other. If a white woman suffers ill-treatment at the hands of a colored man justice is often administered summarily without waiting for the slow-moving machinery of the law. But in wreaking vengeance a Southerner would not harm innocent colored people. That is just the difference between sentiment in the North and in Dixie."

"Pacific Marine Review."

Chicago and the Panama Canal.

"Chicago has a peculiar interest in the Panama Canal. The adoption by the people of Illinois of the constitutional amendment for a \$20,000,000 bond issue for an outlet from the great lakes to the Mississippi is an important and significant step." We can indulge in the belief that in the course of a few years, upon the completion of both this enterprise and the Panama Canal, *lumber and other products* of the Pacific Coast will be delivered at Chicago by an all-water route! In these words Vice-President Fairbanks outlined briefly at the one hundred and fifth banquet of the Bankers' Club at the Auditorium the advantages Chicago will derive from the joint completion of the lake-to-gulf waterway and the ocean-to-ocean canal.

"World," Sept. 17th, 1908.

Timber Men all Look to B. C.

Prominent U. S. Capitalists declare that all Timber in Province will be Gobbled Up by Outsiders

THE LAST FIELD.

"Within two years every New York capitalist interested in timber will have a finger in the British Columbia pie and will, as many wideawake American capitalists are doing now, wrest from the local grasp of British Columbians the multifold opportunities with which this province abounds.

"Why do not British Columbians wake up and realize the value of their own timber before American capitalists reap benefits in advance of those who have lived the major portion of their lives in this province?" —Haywood Brown, New York capitalist.

"British Columbia is the American continent's last resort for timber. Michigan, of course, is a back number so far as timber is concerned, and the timber of Washington, California and Oregon is practically gone. Now the eyes of American capitalists are looking towards British Columbia and should this province in time be unable to yield more, then Americans must build themselves mudhouses or invent some substitute for lumber."—W. A. Kappler, Cleveland, Ohio, promoter of inter-urban railroads, now retired.

These two opinions were expressed at the Hotel Vancouver to-day by two men whose experience gives weight to their words. The first is here to buy timber and the latter is here with a party of other Cleveland capitalists on a continental tour. They are not the first who have made similar remarks concerning British Columbia, but as a rule opinions of this sort are not expressed in such a candid manner, particularly by timber men like Haywood Brown who have come here to get on the ground floor.

Mr. Brown has spent the past few weeks on Vancouver Island and came to Vancouver to-day to await the report of a number of cruisers prior to closing several deals. He is a son of Willard Brown, of Brown & Wells, New York, counsel for the Western Union Telegraph Company, etc., and who, it will be remembered, figured in the historic incident when Roosevelt sent a battleship to scare the San Domingo government into

paying a large sum of money owing to this firm. Haywood Brown is handling capital for his father and other private individuals who will probably hold the timber bought here for the big rise in values they believe is inevitable.

"I have not the least hesitancy in saying that within two years there will be a rush by New York capitalists to this country for timber," said Haywood Brown to-day. "It requires no prophetic foresight to see it coming. For every New York capitalist, if he hasn't British Columbia timber on the brain, has it on the tongue, and it is one of the important topics of conversation. By hearing these men talk and knowing their interest in timber it is easy to predict a strong move this way in the very near future. America has evidently got to look to British Columbia for timber and American capitalists will undoubtedly get in ahead of the demand.

"The people in this country do not realize the value of the timber along the east and west coast of Vancouver Island, and on the mainland, particularly in the western section of British Columbia, but it is gratifying to notice that British Columbians have at least learned a lesson from the mistake of Washington, Oregon and California and are preserving the second growth. But you British Columbians who have been born and 'raised' in British Columbia do not appreciate or realize the value of your timber and probably will not until Americans have got ahead of those who had the first chance."

A similar opinion was expressed to-day by Mr. W. A. Kappler, of Cleveland, formerly a promoter of inter-urban railways and now retired who, with Messrs. D. Myers and J. Bleoffinberry, of Cleveland, and C. T. Dahlin, of Elgin, Ill., are taking a pleasure tour over the continent.

"Already we are compelled to get our red cedar shingles from British Columbia," said Mr. Kappler, "and within a comparatively short time we will have to depend almost entirely upon British Columbia for all lumber."

"The News-Advertiser," Vancouver, B.C., Nov. 26th, 1908.

Timber Reserves of Province.

Particulars of a Principal Resource placed before the Public of Great Britain.

The second article relative to British Columbia appeared in the London Times under the heading of "Timber Resources," as follows:—

The last comers into the arena of any competitive industry are by no means always the least fortunate. On the contrary, they can see the mistakes of their predecessors and may profit greatly by avoiding them. How much more convenient and economical, for instance, would have been the working of our own railway systems if gauges, bridges, tunnels and rolling stock had all been originally designed upon a larger scale.

A parallel case is furnished by the circumstances of the timber or "lumber" industry in British Columbia. It is admitted by experts that the largest remaining areas in the world of first-class building timber are in this province. But having witnessed the terrible mistake made by their southern neighbors permitting the so-called "inexhaustible" forests to be devastated by the indiscriminate ravages of lumber speculators, until now the supply of American timber is within measurable distance of extinction, the government of British Columbia has wisely resolved upon a policy of restriction. It has legislated with a view to the protection and conservation of its invaluable resources by regulating the denudation and exportation of its forest wealth. How great is the necessity for such control in order to maintain for posterity one of the most precious sources of revenue to the State will be best understood by referring to the words uttered by President Roosevelt at a "Conservation Congress" held at the White House in May last. Said the President: "The wise use of all our national resources is the great material question of to-day. I have asked you to come together now because the enormous consumption of these resources and the threat of imminent exhaustion of them, due to reckless and wasteful use, once more call for common effort and common action. This nation began

with the belief that its landed possessions were illimitable and capable of supporting all the people who might make our country their home; but already the limit of unsettled land is in sight. We began with an unapproached heritage of forest; more than half the timber is gone."

Another speaker at the Congress, Mr. James J. Hill, went into certain figures. He said: "The lumber cut rose from eighteen million feet in 1880 to thirty-four thousand million feet in 1905. We are now using annually five hundred feet board measure of timber per head, as against an average of sixty for all Europe. The New England supply is gone. The South has reached its maximum production, and begins to decline. We are consuming nearly three or four times as much timber as forest growth restores. Our supply of some varieties will be practically exhausted in ten or twelve years."

The Government of British Columbia is much alive to the enormous importance of the conservation of one of the greatest—possible the greatest—of the assets of the Province. In his Budget Speech in February of this year the Minister of Finance—the Hon. R. G. Tatlow—summed up the situation very succinctly in the following words: "Whatever is in the best interests of the lumber business is in the best interests of British Columbia, for the lumber industry is the backbone of the Province. There is but one thing to guard against, and that is over-speculation in timber. If the laws can be changed to the advantage of timber owners and millmen, and the country safeguarded from the timber speculator, then let them be changed. If any attempt is made to raise the prices of logs beyond reason, then the reserves can be thrown open in the interests of the consumer. Our policy of forest reservation will also encourage more conservative methods of cutting timber, for it is only natural to suppose that the holders of licences (which are not granted for any area exceeding 640 acres) will adopt every means possible to secure the best result from year to year."

The total forest area of British Columbia is estimated at about one hundred and eighty-two and a half million acres. As far north as Alaska the coast is heavily timbered, the forest line following the indentations of the coast and the river valleys, a natural arrangement, which makes "logging" a much simpler matter than it would be if the forests were far inland. The logs are drawn to the water's edge, and can be safely towed in rafts for almost any distance along the coast on account of the many islands and inside channels. There are about one hundred and sixty sawmills in the Province, with a combined daily capacity of over three million feet, but this maximum has never been reached, although the annual cut has increased very considerably in late years. The area of timber lands now held under lease and special licence is over six million acres.

The rapid development of the Middle West—Alberta, Saskatchewan and Manitoba during the last four years, lent a decided stimulus to the lumber industry. The establishment of hundreds of new towns and the building of new railways created an unprecedented demand for all classes of timber. As a consequence, there was a stampede for special licences, and at the close of 1907 the Government called a halt by reserving for an indefinite period all the remaining standing timber in the Province.

The "Douglas" fir (named after an early explorer) is the most widely distributed and perhaps the most highly valued of all the trees of British Columbia. On the coast it attains immense proportions, sometimes towering three hundred feet in the air, and having a base circumference of from thirty to fifty feet. The best of them average one hundred and fifty feet clear of limbs and are five to six feet in diameter. This is the stable timber of commerce, often classed in the trade as Oregon pine. The giant red cedar stands next in importance to the Douglas fir. Though seldom more than one hundred and fifty feet in height, diameters of eight to ten feet are not rare, and occasionally they are found much larger. The wood of this tree is very durable, and is largely used in the manufacture of shingles for roofing. It takes a very brilliant polish and occurs in such varied shades of color that the interior of a house may be panelled with it without two rooms being alike. In British Columbia it enters largely into the manufacture of doors and cabinet work of all kinds. Like all cedars, it lasts well underground, and on this account it is much used in the form of telegraph poles and fence posts. Hemlock is abundant in the Province, and possesses qualities which should make it more valued than it is. The Western species is different from and much superior to the Eastern hemlock, and is as serviceable in many ways as more prized timber. There are many other trees of commercial value which are manufactured into lumber, including white pine, tamarack, balsam, yew, maple and cottonwood. The silver fir, cypress, larch and spruce also occur in great profusion.

In the manufacture of paper pulp British Columbia will ultimately hold a great place. Possessing the raw material in enormous abundance, innumerable waterfalls whence power can be generated, and a network of waterways for transportation, the Province is destined before long to be in a position to supply the world with wood pulp, or, better still, with paper of every grade and quality in every form in which that material is used.

"Colonist," Victoria, B.C., Dec. 15th, 1907.

Our Timber Resources.

Herewith is reproduced an excellent photographic view of the mills and yards of the Victoria Lumbering Company at Chemainus, taken specially for the Colonist by Messrs. Fleming Bros. Through the kindness of Mr. W. J. Sutton, M. E., F. G. S., we are able to give some interesting information respecting the timber resources of Vancouver Island. It may be mentioned that Mr. Sutton knows the Island better, probably, than any other living man, has spent many years in exploratory work in this particular section of the Province.

"There is hardly an acre," says Mr. Sutton, "on Vancouver Island that is not covered with timber. The only place there is no timber is where water has covered the ground and made a swamp. But wherever there is a chance for a tree to grow, it does grow. Of course, the best timber is found in the valleys, but in some places the timber climbs the mountains wonderfully. I found fir trees growing two thousand feet high on the Beaufort Range. As a rule the fir reaches an elevation of two thousand feet. When it is too high for the fir we have hemlock. We have perhaps the largest belt of timber in and around the Salmon River country, that is a very large area, and the very finest of timber, running approximately fifty thousand feet to the acre. That is what the best timber of Vancouver Island averages. We have some special places where the average runs up very high indeed. There is a place up on Robertson River, Cowichan Lake; I am satisfied that several thousand acres there will average three hundred thousand feet to the acre. They have been logging on Cowichan Lake, and there is a number of places where the timber has averaged one hundred thousand feet to the acre. The trees grow up like candles and form an umbrella top, without a single limb below, and we used to make the remark that it took two men and a boy to see the top.

"On the south side of Cowichan Lake we have an enormous acreage, amounting to probably one thousand million feet. I am only giving these figures very roughly indeed, just to convey some idea of the magnitude of our resources there. Then up in the neighborhood of Comox the Chemainus Lumber Company have a very fine timber area. They have one single block there of twenty thousand acres, and then there is this area here, running up to thousands and thousands of acres; it will average about fifty thousand feet to the acre. All this has not been touched yet.

"On the West Coast, instead of fir we have cedar. I was interested in some timber land at Kennedy Lake, where there is very large cedar. To give you some idea of the size of the cedar trees down there, when we were running a survey line one day, I sent a man back to pick up something that was left behind, and as he had only been gone a few minutes, I noticed by his demeanor that there was something wrong, and he said: 'I thought I was going the other way.' I went along with him to ascertain how it happened. I found that he had become lost in going around a big cedar tree, and came back on his track. That tree measured forty-five feet in circumference."

"Along the West Coast we have a very large quantity of very fine cedar, and there is considerable cedar scattered all through the timber limits on Cowichan Lake and Comox and to the north; but the cedar decreases as we go northward, and here we have more spruce. I have not been through the Klanch portion of the country, but reports have been made by Mr. Fry and Mr. Gray. They report considerable areas of cedar and spruce."

The Esquimalt and Nanaimo Railway Company owns 1,500,000 acres of agricultural, timber and mineral lands on Vancouver Island, extending from Otter Point on the southwest coast to Crown Mountain in the Comox district, which include within their boundaries all the flourishing farming, mining, lumbering and fishing communities along the East Coast and the line of the Esquimalt & Nanaimo Railway, a track recognized to be the choicest portion of Vancouver Island. This magnificent estate is being systematically explored by the company, whose intention is to clear the land of timber and divide it into convenient sized lots, when it will be offered for sale to fruit growers, farmers, poultry and dairymen, at reasonable prices and on favorable terms. As the interior is explored it is the intention of the company to extend the railway and build branches into the most desirable valleys, to afford easy access to the agricultural, timber and mineral lands.

These magnificent Timber lands are all held by Crown Grant—and are not subject to the Province for timber dues, which is now 50c. per M., B.M. and which is sure to be increased before long to double that figure as timber becomes more scarce and valuable.

The dues in Ontario are now \$2.50 per M., B.M., and the latest sale of Provincial Government timber lands carried a bonus of \$10 per M. stumpage, a total of \$12.50 per M., B.M., equivalent to British Columbia timber on basis of an average of 25 M., B.M., per acre (a low estimate) of \$312.50 per acre! Study this!

Extracts from an Article on
The Slaughter of the Trees.

"By Emerson Hough."

Author of "The Story of the Cowboy," "The Mississippi Bubbie," etc.

Our very classification shows how sweeping has been the devastation. We now classify as "pine" all sorts of pine—Norway pine, Jack pine, pitch pine—although we know that true white pine, once the only wood dignified with the name, is, as a great lumber tree, practically an extinct species. As to the hardwoods, twenty years ago we used only oak, walnut, hickory, cherry, maple, birch; now we add cottonwood, beech, sycamore, all sorts of gum trees, anything that will saw into a board. The desolation in the hardwood forests of the South is as unspeakable as in the pine forests of the North. Stave makers, tie cutter, vehicle and machinery makers, have ripped open the hardwood regions of Tennessee, Mississippi and Arkansas, until the end is as close there as it is in the vaster pine woods.

The price of all lumber has in five years risen over *fifty per cent.* We use lumber now that twenty years ago would have been rejected with scorn by any builder. Yet prices are going up, and still up; and the lumbermen wish these prices "protected," and ask that the Sherman law be revoked. In spite of these facts, the professional optimist in lumber attempts to soothe us with the assurance that there is plenty of timber "farther west;" that it will last "indefinitely" at the "present rate."

The lumberman bases all his timber estimates on the *present* rate of cutting and on the *present* rate of demand. True, no one can prophesy or estimate the *accelerated*, the cumulative demand in the future. Decade after decade of our past has shown us that we could not dream big enough to cover the actual figures of this demand. Yet this unestimated factor is the element of danger for the future.

The lumberman does not figure on the million or more of immigrants we take in each year to house, not to mention an occasional American native born. *Worst and most absurd of all, he figures on the timber supply lasting, on the basis of its all being used.* Yet, of all the timber now left standing in America, to represent our entire future supply, this lumberman, judged by his record, will use less than one-half. *The other half will never be taken out of the woods at all. Three-fourths of that half may never even be cut, but may be set on fire and burned as it stands.* Much as we had in forest resources in the past, we never could afford to have lumbering operations destroy as much as they sawed. But that is what they did. What should be our attitude to-day toward the threatening destruction of one-half of our alarmingly small remaining supply?

Last year we cut nearly forty billion feet of lumber, board measure. It may be interesting to know in what proportions the different states furnished this supply. In relative order a partial list is as follows: Washington, Louisiana, Wisconsin, Michigan, Mississippi, Arkansas, Minnesota, Texas, Pennsylvania, Oregon, California, North Carolina—and so down. To-day Washington furnishes 11.5 per cent. of our lumber, and Louisiana 7.4 per cent. Let us look now at some of the demands for trees that at first might seem unimportant.

Our railroads are said to use one-third of the industrial timber cut. They require, *on the basis of present demand* one hundred million ties per year, and they are always wondering where they are going to get them. The demand is for better ties, not poorer. Bad ties mean wholesale murder, forfeiture of mail contracts, reduced dividends. A tie contains about thirty-five feet of wood. All sorts of wood are now being used for ties, from hemlock at twenty-eight cents to white oak at fifty-one cents, an average of forty-seven cents per tie. Suppose we could cut one hundred ties to the acre; we should require a million acres a year for ties. Hardwood grows, under favorable conditions, a little more than forty cubic feet per acre per year! Not a very fast crop, is it? Railroad men sincerely wish it might be faster. The Santa Fe road has recently arranged to plant a few thousand acres with eucalyptus, from which it will sometime make ties. Each road now has its tie lands. These lands no longer furnish a public supply of lumber.

Alongside the ties run the telegraph poles, not so perishable, but requiring continual renewal. Two years ago we cut three million five hundred and twenty-six thousand eight hundred and seventy-five poles over twenty feet in length. Three-fifths of these were cedar, twenty-eight per cent. chestnut. We cut hundreds of thousands of smaller poles, also, not to mention vast quantities of what is called lodge-pole pine, for other uses. We annually reap for telegraph and telephone poles somewhere between three and four million acres of land.

If you stood on the top of a tower in the greatest hardwood forests of the South, one sweep of the scythe of civilization would mow it farther than you could see, for one month's use in vehicles, manufactured fur-

niture and farm implements. Prices for this kind of wood have risen from twenty-five to sixty-five per cent. since 1899. In seven years the production of hardwood has fallen off fifteen per cent.; and those were the six years of its greatest demand.

The highest estimate of our remaining hardwood is four hundred billion feet. For lumber, ties, posts, manufactures, fuel, etc., we use twenty-five billion feet per annum or more. At that rate it will take us sixteen years to use up *all* the rest of our hardwood—if we do not burn it, and if the demand remains the same! A pleasant prospect, is it not?

More than one hundred thousand acres of timber, in the whole United States, are cut over every working day. We use many times more timber per capita than any other nation.

We have left over not four hundred and fifty thousand acres bearing commercial timber. Cast up in your mind some of the small demands of industry noted above. Multiply this by three or four to represent the total, including all sorts of sawn lumber. Remember that you are dealing in terms of millions of acres. Divide four hundred and fifty million by your total number of millions of *known* demand. What is the result? Do you find it pleasant? Do you remain willing to listen to the charming of those who are either ignorant or hypocritical in their "estimates?"

All our standing timber is estimated to be somewhere between fourteen hundred and two thousand billion feet. If we use forty billions per annum, we can run thirty-five to fifty years at the present rate, provided we do not have any waste. If we use one hundred billions per annum, our timber will last fourteen to twenty years, on the same basis. If we use one hundred and fifty billions per annum in nine to thirteen years our timber will all be gone! Counting the natural growth under prevailing methods, we could add ten years to these terms; but that means if there is no waste in any private operations, and we cannot control the operations on private lands *under any laws we now have.*

As to the woods most used to-day, we may find out something. Yellow pine is now first, about one-third of the total cut. At the present rate it will hardly last fifteen years. The optimists of the lumber trade say twenty to twenty-five years. Douglas fir is next in amount used. At the present rate it would last seventy years. Is that any ground for hope? Not in the least. We are just beginning to get into this Douglas fir country with roads and mills. No one thinks there will be any of it left twenty-five years or, at the most, thirty years from now. Its history thus far offers a close parallel to that of the white pine, once thought exhaustless; but we must look at the Douglas fir in the light of future history plus improvements, plus increased facilities for transportation, plus speed, *plus an always increasing demand.*

And yet there are some men, among them many Western men, who execrate the idea of timber reserves as "un-American." There are a few men who condemn President Roosevelt for using the last three minutes of the last session of Congress in signing up for the American people seventeen million acres of new natural forests or reserves. It was his last chance to do so. Congress was about to pass a law taking the matter of reserves out of the President's hands. Note now, if you please, that this pinch for trees is in the hands of Congress; that is to say, of American politics. We have now about one hundred and sixty-five million acres in our national reserves. If we had three times that much, we should not have enough.

