

A FOREST DEPARTMENT.

The Gilmour-Paradis litigation and a recent return to Parliament concerning timber licenses and Crown land in the formerly disputed territory, both afford evidence of an unsatisfactory state of things in the two chief Provinces of the Dominion from the intermingling of lumbering operations and agricultural settlement. Attention is thus called to a well-known evil. The influx of settlers into timbered lands under license is not in the interest either of the lumberman, the farmer or the general community.

It is the fruitful source of ill-will, disputes, litigation frauds on the Government and pillaging of the lumbermen by pretended farmers, destruction of property and loss of public revenue. To the lumbermen it is especially injurious for besides minor annoyances it often forces upon him inconvenient and premature cutting of timber on parts of his limit and exposes him to greater risk from fire. It is impossible to prevent the flames sometimes spreading to the forest when settlers are clearing their new land by burning in the immediate vicinity, to say nothing of increased danger from the presence and possible carelessness of persons over whom the lumberman has no control and who have little personally at stake if their camp fire while hunting or match when lighting a pipe should cause a devastating conflagration. In such cases the community at large suffers, for there is a destruction of the wealth of the country, and a loss of revenue, a share of it being borne by every individual. Nor does the settler gain by the system, for forest land is rarely so well adapted for agriculture as other portions of the public domain which are or should be open for settlement.

To remedy this evil or at least to check it, each Province and the Dominion should establish departments or sub-departments of Woods and Forests. One of these should be in conjunction with the Crown lands department, to mark out the land to be classed as forest and the area open for settlement. No farm settlers should be allowed on the forest reserves unless they are thrown open after the timber is removed. On the other hand the lumberman might be called upon to conclude his operation upon certain portions of his limit within a reasonable time if it were held expedient to withdraw it from the forest reserve and open it for settlement. In this way the lumberman would be protected from loss and interruption, the agricultural settler would not be lured into wasting his energies on unsuitable land and the public revenue would be protected. The lumbermen would also be benefitted and the public finances improved by the forestry department exploring, setting aside and making public by maps or otherwise the available forest land not yet appropriated, thus ensuring readier sales and increased competition. It would also facilitate the reservation, if it is not too late, of permanent forests as in the chief countries of Europe.

From every point of view the establishment of properly organized Forest Departments is advisable.

SCHOOLS OF FORESTRY.

A SPECIAL committee of the British Parliament has presented a report on the advisability of a Forest School or other means of rendering the woodlands of the Three Kingdoms more remunerative. After a thorough investigation they recommended that there should be a Board of Forestry with a responsible head reporting to some Department, the members being chosen from the societies, the two Houses of Parliament, owners of extensive woodland, &c. The Board is to manage forest schools in each of the three Kingdoms and instruction in forestry. The committee call attention to the fact that the British imports of timber from abroad amount to no less than £16,000,000 or about \$80,000,000 and they hope that good management may cause a portion of this to be supplied from the home forests. The improvement in the public forests would, they say, amply repay the cost of the School, and the private woodlands are far more extensive. Official figures give the area of woodlands in the Three Kingdoms as 2,788,000 acres, England having 1,460,000, Wales 163,000, Scotland 829,000, and Ireland 330,000. They call attention to the fact that nearly every other civilized nation has forest schools and an organized system of instruction in forestry. The want of such a system in Great Britain will be called to the attention of the general public by this report, and it is expected that the Government will act upon its recommendations. It is not the first time that the want of scientific and practical instruction in forestry has been felt, for on the establishment of a forestry department in India the officials had at first, if they do not still have, to acquire the requisite knowledge in the schools of France and Germany. The same was the case when the Australasian and South African colonies took steps in this direction, for it is Canada alone that has followed the Mother Country in ignoring this subject.

CORRESPONDENCE invited on all relevant topics.

CANADIAN HARDWOODS FOR CARRIAGE BUILDING.

THE following letter has been addressed by Mr. George Norgate Hooper, F.R.G.S., F.S.S., President of the Institute of British Carriage Manufacturers, and its representative in the Council of the London Chamber of Commerce, to the Canadian Minister of Agriculture at Ottawa:—

SIR,—It may be asked what induced me to make a journey to Canada when I might have enjoyed a quiet holiday with change of scene, a pleasant rest, and far less fatigue in some nearer country. To such a question I would reply, the motives were somewhat mixed. I had this year made the acquaintance of many colonists through the medium of the Colonial and Indian Exhibition, as also through the congresses, conferences, and entertainments of the London Chamber of Commerce; I had besides promised one of my sons an opportunity of visiting Canada before he settled down in England as a land agent, and so had opened up a sort of sympathy with the colony and its people. I had also received many invitations from Americans to visit them, and in addition, believed that I might acquire some useful knowledge and perhaps be able in some slight degree to assist in promoting a friendly intercourse, and developing trade between the Mother Country and her nearest large colony. Having these views, hopes, and intentions, I left England for a few weeks with a definite plan sketched out, but at the same time one which would have to be enlarged, curtailed, or altered according to circumstances.

Provided with letters of introduction from Sir Charles Tupper, High Commissioner of Canada in London, England, to Professor Saunders, of London, Canada, from Professor Macoun to H. B. Small, Esq., of Ottawa, and from the London Chamber of Commerce to the Secretaries of the Boards of Trade at Toronto, Ottawa, Montreal, Quebec, and Halifax, I was offered opportunities of procuring information under a variety of heads.

My time, however, being limited, others moving about besides myself, some being away, and in one case too distant, and entirely out of reach under the conditions of my journey, and again the time of my calling being in some cases inopportune, my credentials were not of such assistance as under more favorable conditions they might have been.

It did not fall to my lot to see many large trees, such as I had been in the habit of seeing in England, except in the public square of the pretty town of New Haven in the United States. I ought not to say that I was disappointed, as in the States and Canada, for many years past, the settlers and farmers have looked upon timber trees as their natural enemies, and have got rid of them by every means in their power. This wholesale destruction has been carried on to such an extent that good timber trees of commercial value can now only be found in places remote from civilization; that is to say in the primeval forests of the Dominion. Woods that we now import from our colonies and many foreign countries are really from wild or naturally grown trees that have matured without care or cultivation. Much of the timber I have seen growing in European and Canadian forests is of so inferior a quality as to be fit only for fuel, for which purpose a large proportion of it is grown in various parts of Europe. Some of our British timber trees are partially cultivated and cared for; nowhere have I seen so good and fine an average of timber and ornamental trees as in England; they are here planted in parks, hedgerows, and on farms, sometimes singly, sometimes in well defined rows, sometimes in groups; but English trees are rarely planted in forests.

Planted in this open manner they are fully under the influence of light and sunshine, storm and rain, and have the benefit of plenty of fresh air; they spread their limbs, they grow slowly, and their wood becomes hard and tough; on the other hand, trees which grow close together in forests get little sunshine and light on their trunks, little fresh air or the bracing influence of wind, rain and storm.

I contend that with scientific forestry timber trees can be cultivated and thereby improved in quality just as by scientific and careful cultivation flowers, fruits, vegetables and all garden and farm produce can be improved and rendered more excellent, and therefore more valuable; the partial success that has followed partial cultivation encourages us to believe, nay, assures us, that, with better methods, better results will be obtained: *Arte natura durabit*.

The establishment of high schools and elementary Schools of Forestry in England and her colonies would render excellent service to landowners, as also to manufacturers requiring sound and fine woods for their work; nor would the general public fail to reap a benefit, since it would get good articles of British growth and manufacture, thus keeping the money of the country to pay its own rents, rates, and taxes, instead of sending it away to pay those of other people who now profit by our distinct negligence in not turning to good account our manifold resources.

Having carefully read the evidence given before the Com-

mittee of the House of Commons in 1885-86, as to the utility of Schools of Forestry, and the advantages of establishing one or more in England or Scotland, I was prepared to believe that great waste must occur, in forests and forest products, without careful and systematic management.

I was quite unprepared, however, to see and hear of wholesale and indiscriminate waste, probably as a sort of necessary sacrifice to the production of wood, but waste for all that. It may possibly be that many trees left to themselves uncared for and uncultivated are fit for nothing but fuel; and it may be that trees fit only for cooking and warming purposes have their value, but all unnecessary waste should be avoided as a loss to the colony. It would be conceded at once that what may be a small individual loss, when multiplied ten thousand times, becomes a heavy national loss, and it is evident that the Dominion of Canada is at present suffering in this way.

In many parts the presence of trees seems to have been looked upon with as much dread as pestilence or famine, and to be got rid of at any cost, by felling, burning, blasting, rotting, &c.; and indeed there are districts which bear traces of a sort of hatred of trees, a hatred that leaves behind it scars, sores, and distortions on the face of the fair earth, tolerable to behold under the bright sun, but which must be gloomy, sad, and forbidding in dull, rainy, or foggy weather.

From the experience of Switzerland, Italy, France, Norway, England, and other countries, it has become evident, and has been proved, that trees are the friends of man, and not enemies to be destroyed by any means, fair or foul; for they moderate and equalize the rainfall, the temperature, the climate, and promote the even and safe flow of rivers. They protect crops and cattle from the keenness and violence of winds and tempests, and they also afford shelter for those necessary birds and animals which keep insect life within due bounds, besides providing shade and shelter to man.

The stately trees of Elm and grown in parks and hedgerows are not only ornamental, but give a character of beauty to the country, to say nothing of the fine quality of the timber contained in their massive trunks to which storm, sunshine, and air have free access; their very beauty, however, is a snare for their owners unless they happen to be imbued with the mercantile spirit of the age and who are apt to delay, and do delay, felling them while in their prime, especially if there are ladies in the case who venerate the sentimental old English ballad "Woodman, Spare That Tree." This and other reasons combine to cause a large percentage of splendid timber trees to virtually rot as they stand, not ultimately to have no value whatever, not even realizing the cost of felling and removal.

This one passes from waste of one kind to a waste of a totally different kind in different countries, and under different conditions.

The evidence shows that by skilled management such as would become general were good forest schools established and maintained—schools which would turn out skilled foresters of various grades—districts, that cannot now be cultivated with profit as farms, might be made to afford good returns under timber, and probably fruit cultivation, with skilled and careful supervision.

If this has been put to the test by the intelligent foresight of the British Government in India, and will probably come to be considered an advantage in England, where timber cultivation has not hitherto been carried on under the best possible conditions for success, how much more would it advantage a country like Canada, that abounds in immense natural forests, which could be rendered highly productive and more profitable under scientific management.

These volumes of evidence to which I have alluded are well worthy of perusal by statesmen, members of Parliament, government officers, timber merchants, and all persons interested in the growth and improvement of trees as well as those using wood in their manufactures; for it behooves the people of all countries to employ their national products with prudence and discretion, by avoiding waste and promoting their best possible use for the general welfare.

Finding that professor Saunders, to whom was addressed my first letter of introduction, was away from his home in London, Ontario, I rapidly retraced my way sixty miles by railway to Chatham, and visited the hardwood mills of Messrs. Van Allen & Co. there. I found fine samples of straight-grown oak being cut and squared for special purposes; but there seemed to be a difficulty in disposing of the outside slabs and planks. These, if of good quality, might be sawn up into straight bars, packed in rough crates or cases, and sent to London, England, at a small cost, for use in many trades; if sorted according to quality, and marked in a manner to be understood both by the seller and buyer, they would readily sell at the carriage auctions, held fortnightly at the Baker Street Carriage Bazaar, London; if they could be sent sound and seasoned so much the better; but in any case the timber should be of good marketable quality, fit for manufacturing purposes, and well worth cost of