

push, which helps to jerk you back to your first position. At the same time, relax the pressure of your hands, so that the ribs springing back to their original position, will cause the air to rush back into the subject's lungs. Pause for two or three seconds, and then repeat these motions at the rate of about ten a minute, until your patient breathes naturally, or until satisfied that life is extinct. If there is no response to your efforts, persistently and tirelessly maintained for a full hour, you may assume that life has gone.

"No matter which method of respiration is used, it is important to maintain the warmth of the body by the application of hot flannels, bottles of hot water, hot bricks, warm clothing taken from bystanders, etc.

"Firmly and energetically rub the limbs upward, so as to force the blood to the heart and brain. If an assistant is present, let him attend to this. Remember, above all things, that nothing must interrupt your efforts to restore breathing.

"When swallowing is established, a teaspoonful of warm water, wine, diluted whiskey or brandy, or warm coffee, should be given. Sleep should be encouraged. In brief:

"1. Make the subject breathe by artificially imitating the respiratory movements of the chest.

"2. Keep the body warm.

"3. Send for a physician.

"Of the visible effects of lightning stroke upon the human body, little more can be said than that sometimes burns, usually superficial, have been noticed, frequently red lines or markings, which are localized congestions of the small blood vessels of the skin. These, from their irregularities and branchings, have led to the fanciful idea of photographs of trees, etc."

The Forest and the Farmer.

Abstract from a paper read by M. J. C. Chapais, before the Winter Convention of the Quebec Pomological Society, held at Macdonald College, P. Q., in December, 1902.

PRESERVATION OF WOOD-LOTS ON THE LANDS OF NEW SETTLERS.

It cannot be denied that if we could induce new settlers to keep a portion of their lot uncleared, as a reserve for the perpetual production of the wood necessary to its owner for fuel, buildings, etc., this could be the best way to prevent the wasteful deforestation of the newly-settled sections of the Province of Quebec.

Some people object that this idea, very nice in theory, is impracticable. To such an objection, I am glad to quote the authority of a man whom we may well call the best friend of the forest industries in the Province of Quebec, the late Sir Henry Joly de Lotbiniere, as a perfunctory answer. Let me mention here what was said about his system of keeping wood-lots by his son, Edmond Joly de Lotbiniere: "I will now put before you a scheme devised by my father to compel the habitant to preserve as a 'perpetual bush-lot' a certain portion of his property. This scheme has been in operation for over thirty years, and has proved a success. . . . Within the last thirty years my father has made many sales of timber-land on his Seigneurie of Lotbiniere. These sales have been of a twofold nature: Some lands have been sold as 'terre a bois,' small bush-lots of from 15 to 20 acres each, to provide fuel and construction material to the purchaser; others have been sold as agricultural lands, but with a bush-lot reserve.

"The following clause is found in the deed of sale of all timber-lands sold simply to supply the purchaser and his descendants with fuel and building material: 'It is moreover agreed between the parties to the present deed that the said lot is sold upon the express condition that no portion of the same will be cultivated, that no wood or branches shall be burnt thereupon, that the lot will be preserved as a wood-lot by the purchaser, his heirs and assigns, and that no wood from the said lot shall be sold, under penalty of paying to the seller, his heirs and assigns, the sum of \$100.'

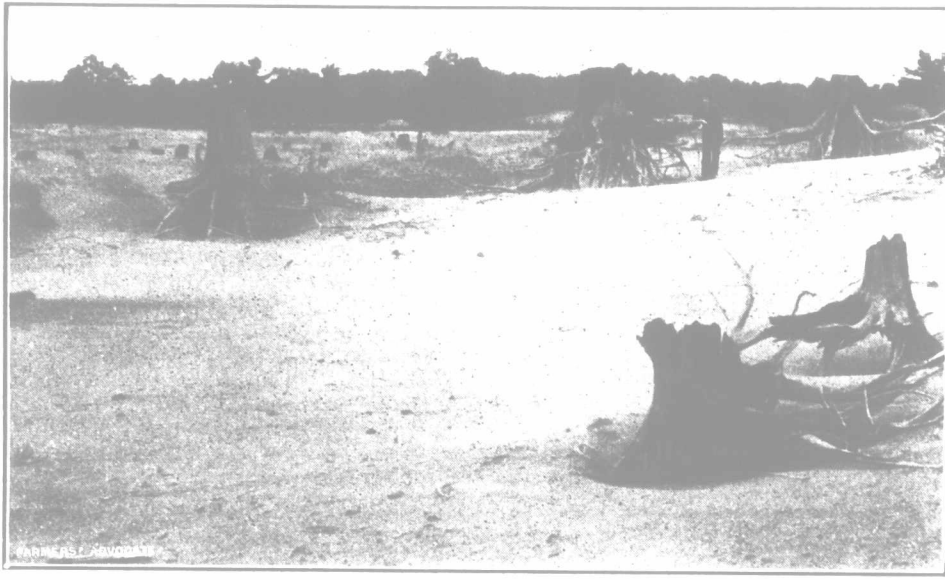
"Where a lot was sold for the purpose of settlement, a timber reserve was always stipulated, in the following terms: 'Permission is given to open and cultivate the said lot up to such limit (and there comes the restriction); that the remainder of the said lot shall not be cultivated; that no wood or branches shall be burnt upon it; that the said portion of said lot shall be preserved as a wood-lot by the purchaser, his heirs and assigns, for their own use, and that no wood will be sold from the said reserve, under a penalty of \$100.'

Mr. Joly de Lotbiniere adds that this scheme of his father, which has now over thirty years of trial, has proved a success; that the land sold as "wood-lots" are to-day covered with a dense growth of timber. This forest cover not only gives the settler what wood he needs, but it powerfully aids in maintaining the water-powers, which a Provident Hand has so liberally endowed our Province. Industries dependent on a cheap

motive power are assured, agriculture enormously benefited, and our settlers are free from any possible wood famine.

Apart from the fact exposed by Edmond Joly de Lotbiniere, I have the advantage of being able to mention, in order to give some strength to my own opinion on the possibility of applying that system of a forest reservation on every lot opened to agriculture, a fact being in existence in my own native parish, St. Denis of Kamouraska. There, we find on the land of J. Bte. Raymond a forest reserve kept by the first settler on that property, in the year 1700, and submitted since then to a regular exploitation which permits the owner to get from it all the fuel and building material he may need.

This reserve covers an area of 120 acres, and yields every year to its owner a revenue of \$100 in wood, a sum which represents hardly one-fourth of what it could yield, should the owner need it.



No. 1.—Blow Sand on Government Forest Station, Norfolk Co., Ont.

In the same place, on another land, owned by Eugene Robichaud, a forest reserve covering an area of 133 acres, being kept since the same period of time as the other one mentioned, gives about the same revenue, with the capacity of yielding three or four times as much, if needed.

RECONSTITUTION OF WOOD-LOTS ON WASTED WOOD LANDS.

A good way of repairing the damage caused by wholesale deforestation is to reconstitute the forest where it has been destroyed inconsiderately. There are, here and there, where wholesale deforestation has taken place, specially for the cutting of pulp-wood, some spots which, at first sight, seem to be still tolerably covered with wood, and this because we still see on them hardwood trees



No. 2.—Nursery Lines on the Norfolk Forestry Farm.

which are not used for pulp. Those spots, left by themselves, generally unfit for culture, remain useless, and, being covered with dried refuse, are a constant danger for the propagation of forest fires. Now, it is possible to reconstitute the forest on such lots without incurring much expense. There, again, to prove my point, I will propose an example given to me by farmers of my native parish, of the name of Dumais, who, not more than twenty-five years ago, having no more wood on his own lands, and being able to get some only by going as far as 8 or 10 miles from their place, conceived the central idea of buying some recently-deforested land adjoining the forest then undergo-

ing exploitation, with the purpose of reconstituting wood-lots with such lands. They bought that land relatively cheap on account of the fact that it was unfit for cultivation, and to-day they find on their 325 acres of land so reforested all the wood they need for their use. They have got rid of the fear of wood famine which is impending on their neighbors who were not as provident as they themselves have been. They will, also, have the advantage, when they will leave this world for a better one, to leave to their children the rich and precious heritage of an area of reconstituted forest, yielding a revenue of many hundred dollars, which is due to their energy and spirit of providence.

The Norfolk Forestry Station.

To transform barren wilderness and waste land into a place of beauty, comfort and profit, is one

of the praiseworthy purposes of the Forestry Department of the Ontario Agricultural College. This is no mere dream, but an actuality. Praise has been bestowed, and properly so, upon the man who makes two blades of grass flourish where one grew before. How much greater the honor due the public benefactor who restores what has been ruthlessly destroyed, or recovers steep hillsides, sandy or rocky spots, swampy or other non-productive land, with a growth of trees which are a threefold benefit to the community? To see

the initial processes working out under primitive conditions, one should go down, as did an editorial representative of "The Farmer's Advocate" recently, to an out-of-the-way corner of Walsingham Township, near the pleasant Village of St. Williams, in South Norfolk County, Ont., where the Provincial Department of Agriculture have acquired about a thousand acres in the "blow-sand area," as dreary and unpromising a spot to all appearances as might be found anywhere. This area was once timbered with pine, oak, walnut, and other trees, but when the lumberman stripped away the forest, probably growing rich in the process, he impoverished the soil, which proved, in due course, more productive of mortgage than any other crop from its white and drifting surface. Local tradition tells of three successive generations of snake-rail fences buried deep in Walsingham Township, beneath the treacherous drift. Of all tree stumps, the mighty, angular arms of the pine are most tenacious, but photo No. 1 in our series of illustrations, shows how the breezes sift away the encircling sand, and leave them high and dry.

Here, then, was an ideal spot for a demonstration in tree-growing, and its selection for that purpose, and as a Government forest nursery station, was an inspiration, when a work, Provincial in scope, was to be developed, the College land at Guelph was too costly and restricted in

area for the purpose. As there are probably 10,000 acres of adjacent land available for reclamation, ample winter work can be provided for the staff of about a dozen experts who are busily employed in working the nursery beds and otherwise in summer. Already there are about ten acres devoted to this purpose, and about 30 acres of sandy waste hills and abandoned land have been planted with pine and black locust. Planted in rows about three or four feet apart each way, a plow furrow being struck for the purpose, it is really wonderful to see the growth of top and root of these seedlings in what looks like absolutely barren, white sand. In a few years, the

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