

home and property are situated, he owes no municipal tax to a town or city into which he goes to sell and buy. Other men in thousands resort to towns and cities and are not taxed. The farmer alone is cornered in the market and made to pay a small fine for trying to sell what Nature, with man's help, has produced.

Because farmers work and produce, towns are called into being. Gratitude and coddling we can do without, but the time for fair play has arrived. Welland Co., Ont. E. MORDEN.

The Peace River District.

A LETTER FROM A PIONEER AT VERMILION, PEACE RIVER, N.-W. T.

To the Editor FARMER'S ADVOCATE:

SIR,—The rush to the Klondyke has brought this region prominently before the world, and I am constantly receiving inquiries from widely different sources as to the possibilities and capabilities of this country. It is very difficult to answer these inquiries within the confines of a letter, and just about as difficult to answer them in a brief article for a paper. People naturally seem to shrink from anything of an Arctic character, and when the North is even mentioned a sort of closing up of one's mind seems to take place and the ability or disposition seems to be lost to accept the fact that there are other powerful factors besides latitude which might be taken into consideration. The possibilities and fertility of this favored land have been a revelation to scores of intelligent men who have visited us during the early part of this season on their way to Northern gold fields and to whom we have been able to show something of our resources. Many who have passed here have declared that if they did not strike anything rich further north they would certainly come back and settle here.

In the first place, the Peace River is one of the very best steamboat rivers in the world, and Americans have repeatedly declared it to be larger than the Mississippi at New Orleans, with a greater volume of water. There is a stretch of this magnificent river between the falls and the mountains—some six hundred miles—which has never yet seen a steamboat. The country all along on both sides is a fertile section adapted to general farming. There are no large plains and no open prairies, but a country interspersed with wood, prairie, beaver lakes, bluffs, etc. The wood is decreasing and the prairie increasing year by year. The usual kinds of Northwest timber are prevalent. The vegetation, in fact, is very similar to that of the Saskatchewan region with its wood, hay meadows and pasture grasses.

After a residence of nineteen years in Vermilion, with always a large household to provide for, I have come to believe that we are as highly favored here climatically as almost any other region of our great and glorious Northwest. Speaking from personal experience, I have never had but one frosted crop of grain, and that was in 1881. Some years we have suffered from drought and light crops as a result, notably last year, but on an average we have had very good crops of beautiful sound grain and vegetables. A few of the things we raise are wheat, barley, oats, millet, rye, potatoes, turnips, corn, pumpkins, cabbages, cauliflowers, squashes, beets, carrots, onions, radishes, peas, lettuce, and as much more garden truck as we like or have time to bother with. Wild fruits, such as the Saskatoon, strawberry, raspberry, dewberry, cranberry (two kinds), black and red currants, and gooseberries are in abundance. We gathered ripe strawberries last year the 14th of June and this year a week earlier. The raspberries and Saskatoons were getting ripe July 14th. These latter are dried and enter largely into domestic cookery, as other dried fruit. We are not troubled with potato bugs here and Ireland herself cannot compete with us in the fruit of the Green Isle. One man passing here last spring said: "I am from Wisconsin, about ten miles from its southern boundary, and your spring (May 14th) is further advanced than ours generally is at this date." Parties from California were specially struck with the beauty and fertility of this country. As to the healthfulness of the climate there can be no question. You need of the climate there can be no question. You will, I hope, excuse me for writing about myself, but I am asked, as being the pioneer and a long resident, to state what I know and to state facts. It is for this reason I introduce the first person plural. My health was always good, but that of my wife here—was always delicate, and it was thought my wife was going into consumption before we left the East. The trip here was hard, for we were out 119 days, and there was not one of those days but some of the children were sick. They began to mend about the time we arrived here and never knew a sick day here afterwards, except when measles, scarlet fever, etc., visited us. We had not resided here many years before my wife and I had each gained fifty pounds above our heaviest eastern weight, and years ago the children we

brought with us exceeded us in physique. One born here—a girl—weighed heavier at eleven and a half years than her mother ever weighed in the East. We have a dry, bracing atmosphere, destitute of high winds, which prevail in many other places. In my next letter I will endeavor to give you more particulars, especially relating to the physical geography of Athabasca District, which will better explain our unique position here, and will show that though we are sub-Arctic, we are also sub-tropic, and have a land of which Canadians will one day be proud. E. J. LAWRENCE.

Preserving Timber.

The following extracts are from a bulletin issued by the Forestry division of the United States Department of Agriculture, and will prove useful to everyone who has to use timber for fencing or building purposes:—

"A large amount of timber and labor is wasted by lack of care for the timber after it is cut. Rotting of timbers and fence posts necessitates not only the cutting of a large quantity of wood, but also the labor of replacing them oftener than if the wood could be made to last longer.

"There are some rules in the handling of timber which are too often overlooked, and which should be observed by everybody who uses wood in places where it can be kept dry or wholly submerged. There is also much unintelligent use of paints and other coatings which are applied in the hope of preserving timber, when it should have been well known that by painting green or badly-seasoned timber decay is hastened rather than prevented.

"The decay of wood is produced by fungi or low forms of plants. All these fungi require moisture for their development. Wood containing less than ten per cent. moisture is not subject to

and oil paints have the disadvantage that they act as mere covers. If the wood has any chance to get moist before painting they are harmful instead of useful. Heavy tar oils, freed of their volatile as well as their thick, tarry constituents, such as are now offered in the market under the name of Carbolineum, are preferable to paints and tars. These oils penetrate and act as antiseptics, actually killing the fungi, or, at least, retarding their action and development. They are applied with brush or else as baths, usually and preferably hot. They cannot replace paints where the looks of the material are to be improved. Charring assists merely as an insulator, separating the wood from the ground, and as fungi cannot eat their way through char, and as fungi cannot enter from entering. Generally, however, the process develops large cracks, and thus exposes the interior to the attacks of fungi."

Deciduous Tree Seeds and Their Management.

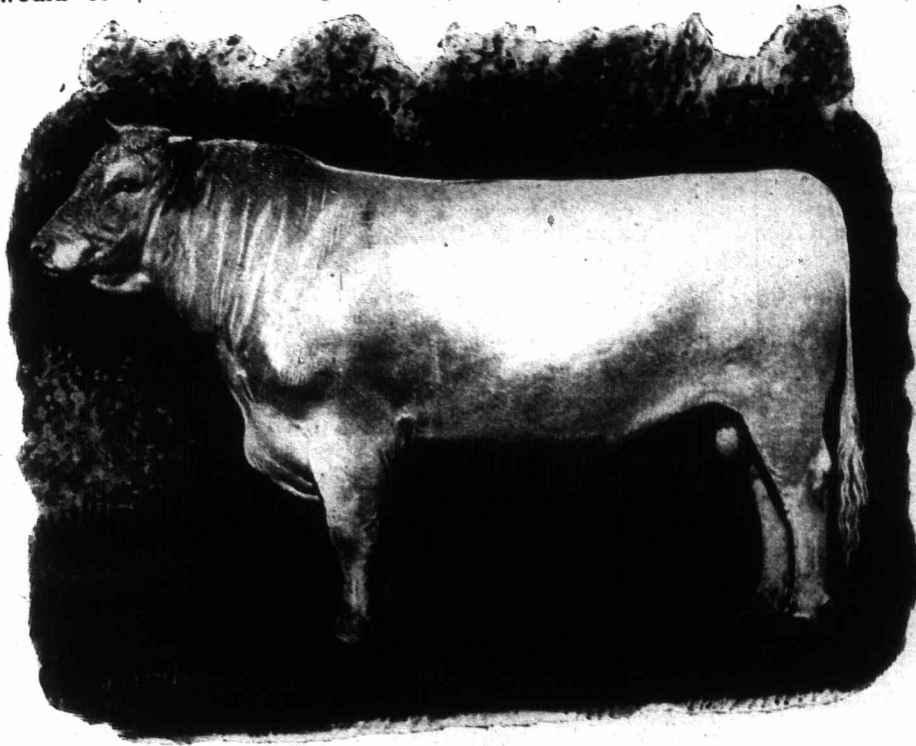
Nature, through her various agencies (the wind, the birds, squirrels, etc.), at this season of the year is noticeably endeavoring to multiply its flora and to replant much of its denuded soil. The percentage of germination of seeds is largely influenced by the variety and year. The structure of the seed coat largely determines the length of time it takes them to sprout and the methods we must pursue in their management. Seeds of the willows, soft maples, poplars, and elms (except that of the red or slippery elm), should be sown on ground that remains reasonably moist, as soon as possible, as they lose their germinating power very quickly. The depth to which they are planted influences the success attending to no small degree, for covering too deep is death to many kinds. As maximum depths, elm, poplars, birch, and elder should be covered as thinly as possible, not more than one-half inch; maple, ash, box elder, and basswood, from three-quarters to one inch; oak, butternut, hickory, from one and a half to two inches. It is more convenient and economical to plant in rows. The question of management of fall-ripening seeds is one which admits of more discussion, but as a general rule it is preferable to plant them in the fall, except those which can be kept over without danger of their spoiling. Owing to the added danger fall-planted seeds have to pass through, it is necessary that they be planted a little thicker and deeper on account of the heaving effect of frost, washing down of soil, and ravage by rodents, etc. They also come up earlier, and hence are more subject to damage by late frosts. Those of a dry nature, such as ash, maple, box elder, birch, linden (basswood), etc., are almost certain to grow if kept until spring properly. The most common method of preserving them is by stratifying; that is, mixing them in layers with sand or leaves. When only a small amount is handled they can be mixed with moist sand in a box and the box buried in the earth in some well-drained spot, or they may be spread out on the surface in such a place and covered with boards. Those above mentioned may also be preserved dry by being mixed with

leaves and hung up in sacks in some cool, dry place. But if kept in this manner they must be place. But if kept in this manner they must be thoroughly soaked before planting, or many of them which have become very dry are liable to "lie over" and not sprout until the second season. The thorn-apple, or wild thorn, and mountain ash seed, like that of the red cedar and juniper, does not, as a rule, germinate until the second season, and may be kept either in a stratified condition or else planted and the row mulched, mulching to be removed the spring of the second season. Seeds of a fleshy covering, such as the cherry, plum, etc., should be separated from their pulp and kept stratified with moist sand until planted. They too, like the nuts, require to be frozen, and may be planted in the fall with safety, although many hold them over until spring. When purchased direct from some near-by nursery, seedlings can be obtained at a very low figure, and it is doubtful if in the majority of cases it would be profitable for the average farmer to raise them from seed. But in many of our prairie sections, where there is a large demand for them for protection, ornamental and timber planting, it will repay him for what time or attention is bestowed on his forest nursery, where, when trees are needed either by himself or neighbors, the choicest may be had direct from the seed-bed or nursery row. GEO. W. STRAND, Sec. Minn. Forestry Association.

A First-class Wagon Grease.

Take a teacupful of tallow, melt until like oil, then pour the same quantity of machinery oil into it, and let cool, when it will be ready for use.

Read our important Christmas Number and Premium Announcement in another column.



SHORTHORN BULL, SILVER CHIEF, WINNER OF FIRST PRIZE AND SWEEPSTAKES AND HEAD OF FIRST PRIZE HERD AT ST. JOHN, N. B., AND HALIFAX, N. S., 1898; PROPERTY OF F. G. BOYER, GEORGETOWN, P. E. I.

decay. The fungi require moderate warmth, cooled to near the freezing point they do not die, but cease to be active and to multiply; heated to 150° Fahr. they die, and the wood is thereby disinfected for the time. They need the oxygen of the air, entirely submerged under water for a long time, with exclusion of the air, they perish, and the same seems to be the case when the wood is deeply buried, especially in impervious soils. Wood lasts better in cold countries and cold places, is safe either under water or deeply buried in the ground, or if constantly saturated, as in a conduit, and resists decay if kept dry or hot. A thin picket lasts longer than a log, and a picket without paint lasts better than one which has been painted before it was really dry. Fence posts, railway ties, bridge and trestle timbers (which are alternately dry and wet and never season, especially at the points of contact, like the sills of houses and timbers in badly-ventilated cellars, basements, wells, and mines) are especially subject to decay.

"Never apply paint or any other coating to green or unseasoned timber. If the wood is not well dried or seasoned the coat will hasten decay. Oil paints are used to increase the durability by protecting the wood against moisture. An exposed unpainted board becomes gray and fuzzy, warps and checks, the nails rust out, and even if it is not exposed to rain, damp air, steam, etc., occasion similar mischief.

"For coating, coal tar, with or without sand or plaster, and pitch (especially if mixed with oil of turpentine and applied hot, thus penetrating more deeply) answers best. A mixture of three parts coal tar and one part clean, unsalted grease (to prevent the tar from drying until it has had time to fill the minute pores) is recommended. One barrel of coal tar will cover 300 posts. Both tar