which the reader does not understand. By all means, own a dictionary, and get the right grip on what you read.

William Francis and his baby were killed and his wife and two other children severely injured in a dynamite explosion, which wrecked their home near Corunna, Mich. Francis wanted to use some dynamite for blowing out stumps, and put it in the oven to dry. And still such things will happen !

The King and Queen and the Princess Victoria of Wales are at present in Ireland. In a speech at Dublin the King expressed the opinion that the future of Ireland lies in Education. "The wide diffusion of cultivated intelligence," he said, "is the surest guarantee of social peace, and the most fruitful source of self-reliance."

At an important series of meetings held by committees of the Methodist, Presbyterian and Congregationalist churches, at the Methodist Bookrooms in Toronto, recently, a resolution favoring organic union of these churches was passed. A similar resolution was passed subsequently at the Presbyterian Synod, Hamilton, Ont.

During the fire in Toronto the great network of overhead wires proved such a hindrance to the firemen, and such a menace to life in case of breakage, that the question has been raised as to whether a safer system, by which wires will be properly insulated and placed underground, should not be effected. Steps toward this end will probably be taken at an early date.

Senator Wark, the oldest legislator in the world, who celebrated his one hundredth birthday last winter, was enthusiastically cheered recently when he entered the Chamber to take his place in the Senate at Ottawa for the first time this session. His brother Senators have presented to him his portrait, which has been painted by the well-known artist, Mr. J. Colin Forbes.

The remains of a huge mammoth have recently been found on Quartz Creek, Yukon, by gold hunters. The skeleton lies directly in the gold-bearing gravel, two feet above the bed rock, and forty feet below the surface of the ground. It is argued that, from the position of the skeleton, the animal must have died ages ago, at the time when the auriferous deposits were being made.

It now appears that the bed of the Fraser River, which never has been looked upon as rich in gold, possesses untold treasure. The Iowa Lillooet Dredging Co., which has for some time been operating a dredge near Lillooet, has for ten days brought up gold to the value of $1,000 per day. The company is so delighted with the result of the dredging that it will put eight more dredges in operation along the river.

A train on the Michigan Central Railway, on April 27th, made a world's record for fast runs in steam railways. The train consisted of one baggage and three private cars. From Niagara Falls to St. Thomas, Ont., 115 miles, the time was 97 minutes; Windsor, 111 miles, was made in 94 minutes and 30 seconds; from Shedden to Essex, 86.26 miles, the run was made in 66 minutes, or 78.53 miles an hour.

It has been estimated that the insurance on the fire-devastated area in Toronto, which, by the way, amounts to about fifteen acres, not thirty, as at first reported, approximates $10,000,000. The blow upon the fire insurance companies has been especially heavy, and to meet it there will be a general advance on rates in towns and cities. The underwriters state that so far 338 individual claims have been presented as the result of the fire.

The Farm Labor Situation.

Mr. Thos Southworth, Director of Colonization for Ontario, has received from farmers applications for help at the rate of fifty per day, and since the first of the year has had about 4,000 such applications. Last year he placed some 5,000 immigrants with farmers. This year there has so far been a slight increase in the number of arrivals, and they have been of a superior class of intelligence, although largely inexperienced, so far as farm lobor is concerned.

Farmers are beginning to realize that the housing problem has to be coped with before there will be any permanent relief from the difficulty of obtaining labor. An increasing number of farmers are now offering, in addition to wages, as an inducement, cottages and gardens to their laborers, with free fuel. Mr. S[illegible]worth says he could have filled all such positions with a good class of Scotch immigrants had he known earlier.

Germination Test for Seed Corn.

(Method given in Bulletin 77, of Iowa Agricultural Experiment Station.)

In the bottom of any ordinary box— a cigar box answers the purpose admirably—place four or five thicknesses of moistened paper. Have folders made of newspaper cut in strips, five by ten inches; moisten these very thoroughly, place the seed corn on them, fold, and place on the moistened thicknesses of paper in the bottom of the box. Cover over with four or five more thicknesses of paper, also moistened, shut the cover of the box tightly to prevent drying out, and set away in some place where the temperature does not fall below fifty-five degrees. In two or three days, examine the corn, and if the folders are getting dry, sprinkle until moist. At the end of five days, examine the samples carefully. Every kernel that has not at this time sent out vigorous root and stem sprouts should be counted unfit for seed. The corn ought to test not less than ninety to ninety-five per cent.

Are You Going to the Pacific Coast?

Cleared land in this district, in most cases, means "in cultivation," but not necessarily stumped. In fact, when a man is describing his land he will always mention what land is stumped, and if he does not refer to it you can be pretty sure it is not stumped. All land in cultivation has been stumped, more or less, but, as a rule, the first-growth firs and cedars are left. I know land that has been in cultivation over thirty years, and none of the "big" stumps have been taken out, and yet these farms are highly profitable, and in many cases by improved methods and more careful management could be made to pay almost double what they are paying now.

Taking out the last of the smaller second-growth firs, cedars, etc., should be done about four years after they are cut. The longer they are left, the easier they will come out, but the big firs and cedars can be safely left until the farm is in a good profitable state. The last stage of the stumping should be done out of profits, and not out of capital, unless a man has ample means, as they do not interfere to any extent with the profitable working of the farm.

Stumping machines have not been a success. The use of powder is the cheapest and quickest mode of getting rid of the big fir stumps, and a team with blocks and tackle, with a little powder, as occasion requires, is the best way of getting rid of the big cedar stumps. A friend of mine in the Chilliwack Valley has stumped over fifty acres in the last three years, entirely by the use of blocks and tackle. These stumps were all cedar stumps. He found that, allowing $4.00 per day for himself and team, and $2.00 for one man helping, these stumps (some of them very large) cost him from $1.00 to $2.50 each to entirely get rid of. The use of blocks and tackle lighten the work in every way, as well as making it quicker. When it comes to taking out the big fir stumps, a fairly liberal use of powder (either twenty-per-cent. stumping powder, forty-per-cent. dynamite or Judson powder) should be used. Powder always acts better if the stump is fairly sound. It is often sufficient to put in a small charge to split it up, and then start a fire in it. This reduces the fragments to a size that can easily be handled with a team, and they can then be hauled away to the "burning pit," described in my last letter. If the stump is a very old one, and too rotten to split up, somtimes the best way to handle it is to dig a hole under it, putting in a sufficiently large charge to lift the whole thing up at once. Experience and the means you have at command will decide the system of work. The cost of getting them out, if the work is intelligently and systematically done, is, as a rule, very much less than is generally supposed.

As regards the second-growth stumps, the largest of which will not exceed two feet six inches in diameter (and very few of that size), these must be got rid of before the land can be plowed to advantage. Experiments are now being conducted which, if successful, will practically do away with almost the entire cost of stumping these second-growth trees. By an arrangement of wire cables and grab-hooks, it is hoped that the weight of the tree itself as it falls over will pull out the stump. Another scheme tried is to bore an auger hole, about one and one-half inches in diameter, in the center of the stump as soon as the tree has been cut down; put the hole in from twelve to eighteen inches straight down, fill it with coal oil, and plug the hole at the top with a wooden plug driven in so as to make it quite air-tight. It is claimed that if a fire is started around this stump the following summer, about a year after the hole is plugged, that the stump will burn clean out. Some people advise the addition of a tablespoonful of powdered saltpeter to the coal oil. I fancy the success of these plans would depend a good deal upon the time of the year that the tree was cut.

If, however, it comes to stumping these by the ordinary methods, the cheapest way (assuming the tree to have been cut about four years) will be found to be to uncover one or two of the main roots, chop them off sufficiently below the surface of the ground so that the plow will not strike them, put in a two-inch auger hole right under the stump, if possible into the taproot, and use sufficient twenty-per-cent. stumping [illegible] to lift up the whole stump. If the taproot [illegible]und, a very little powder will do this. If the roots are spread over the ground and there is no taproot, the stump can usually be pulled over with a team, without using powder at all. When these stumps are once out, they are none of them too large for a team to handle conveniently, and they should be hauled away to the burning pit. After the timber has been cut four years or more, any stumps twelve inches to eighteen inches in diameter will be sufficiently rotten to be easily taken out with grab-hooks or chain and team, without the use of powder at all, and very little chopping or digging. The stumps of deciduous trees, such as alder, maple, etc., will in four years time, or even less, be so rotten that stumping operations of any kind will hardly be needed, as most of them will plow out, and the biggest can easily be pulled out with a team.

The various operations of clearing have been described in such detail that, at first sight, it will appear to be a very much bigger and more expensive job than it really is. Leaving out the cost of taking out the big stumps, which is not essential, and is usually considered a "frilling," it is astonishing how small the cost actually is. The bulk of the work is done by the farmer himself in spare time, between seeding and harvest or in the winter. He also in manycases makes a handsome profit on the cordwood, or, at least, good wages. The same also in cutting up logs for cordwood or shingle bolts. And, besides this, it must not be forgotten that the farm becomes remunerative as pasture land after the first year, and this pasture, owing to our abundant rainfall and mild climate, will keep from three to ten times the number of cattle that the same area would on the prairies. Then, again, your fencing and firewood cost nothing but the labor of cutting it, and at the same time you are clearing your land. You don't have to spend a month every year in hauling firewood and a month's wages in buying fence posts and rails. They are all on the ground, and only want splitting to be ready to use. Again, on most farms there is sufficient cedar to put up all your smaller farm buildings, sheds etc., and often enough to help out in your larger buildings. As this question of cost and profits is, perhaps, the most important one of all, it will be gone into in greater detail in my next and last letter.

CHAS. E. HOPE,

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Agricultural Work by Federal and Provincial Authorities.

Two reports of interest to the agricultural world have recently been issued. One is the report of the Minister of Agriculture for the Dominion of Canada for the year 1903, and the other is the twenty-ninth annual report of the Ontario Agricultural College and Experimental Farm. In the first mentioned report, in addition to the Experimental Farm and other branches, the work of the Dominion Department of Agriculture in the different Provinces is enumerated. Some things in this connection may not be just as clear to the average taxpayer as they might be. For instance, the Live-stock Division of the Dominion Department of Agriculture assumes the responsibility, according to the report, of fostering the work of Farmers' Institutes in Quebec, the Maritime Provinces and British Columbia, of conducting winter fairs, including judging classes in the Maritime Provinces and judging classes in Manitoba, of supplying expert judges for fairs in British Columbia and the Northwest Territories, and of conducting a live-stock sale at Calgary, N.-W. T. In Ontario, the report says: "The work in connection with the live-stock associations and farmers' institutes is so well organized and in such good hands that it has not been found necessary to render very much assistance from this division, except to 'strengthen the hands' of the officers of the Provincial Departments of Agriculture. In other ways, however, the Dominion Government endeavors to assist agricultural interests in Ontario via cold storage experiments, spraying demonstrations, poultry-fattening stations, etc. There is a marked tendency on the part of the Department to expend its energy, and a large share of the funds contributed by Ontario and Western Canada, upon educational and practical features in Quebec and the Maritime Provinces, which properly are within the sphere of Provincial Governments. Ontario and Manitoba stockmen have organized their associations of stock-breeders, but in Quebec this work is undertaken by the Dominion Government; while the complaint comes that B. C. is practically forgotten in the general scheme of Government assistance to stock-breeders, barring the sending out of judges, who subsequently lectured at Institute meetings. The point we wish to make is this: There should be a more clearly defined line of cleavage between the sphere of the Dominion and Provincial Departments of Agriculture, and the Dominion Department should not continue to extend its fostering care to institutions in certain Provinces when similar institutions are under the Provincial wing in other Provinces. If certain Provinces are in need of live-stock associations they should be organized through their Provincial Governments. Sentences like the following should be found in reports from Provincial Departments, rather than in the report of the Dominion Minister of Agriculture: "Steps are being taken to organize the live-stock men of Quebec on the same basis as the live-stock associations of Ontario"; and, under Nova Scotia, "Men that were openly hostile two years ago to any advance along the lines of live-stock associations and farmers' institutes are now expressing themselves as in hearty sympathy with the movement, and are lending a willing hand to push the work along." No doubt, in its effort to be of assistance to the farming community of the whole Dominion, the Department of Agriculture undertook certain lines of work where it considered they were thought to be most required, the idea being to introduce plans in some Provinces which had previously been found beneficial in others. After the work is initiated, the Provincial authorities should follow it up and be responsible. Farmers institute work is clearly of a Provincial character, and is properly and best managed from the Provincial Departments.

In the report of the Ontario Agricultural College and Experimental Farm, the heads of the different departments are able to point with satisfaction to the work done. The object of the College is stated to be threefold: First, and chiefly, to educate young men (and women?) for life and work on the farm; second, to do experimental work of benefit to farmers; third, to encourage farmers in outside undertakings, such as institutes, travelling dairies, and fruit experiment stations. The work reported on is nearly all of a practical nature, if we except perhaps that performed during spare moments by the biological department in noting the varieties, flights and characteristics of birds