INTERESTING AGRICULTURAL FEATURES FOR OUR COUNTRY READERS

HORTICULTURE

ORCHARD COVER CROPS

Facts and Figures that Should Interest Fruit Growers.

In a recent issue of the Semi-Weekly Telegraph appeared part of a paper on Orchard Cover Crops that was read by Prof. W. Saxby Blair before the Ontario Fruit Growers' Association. The article is concluded herewith:

WHEN TO SOW.

The following experiment proves quite conclusively that the soil moisture conditions can be controlled more effectively by the date of seeding than by any particular cover crop. Crimson clover was sown on June 15 and July 15. The soil samples taken on September 1 showed 6.1 per cent of moisture for the early seeding as against 12.3 per cent for the later seed plot. These results are what one would expect, and the date of seeding advisable for different sections and different types of soil can only be determined by conducting similar experiments in your section. After conducting various tests we have settled on the last of June or early in July as the most suitable in our section for ripening young trees.

If trees are carrying a good crop of fruit there is little likelihood of the wood not ripening well, and it would certainly be unwise to dry out the soil too much by early seeding of the cover crop; for this reason, I advise later seeding in the bearing orchard, say, the middle of July. It is well also to keep in mind that cover crops make much more rapid growth in a young bearing orchard where there is little shade than in an old one heavily shaded, and the transpiration in protected areas is not nearly so great as in the unprotected.

Whereas a cover crop may dry out the soil early in the season that does not imply that the soil will continue to dry until late fall and injuries from dry winter freezing result, for our experiments go to show that when a dense covering is formed it so protects the soil that little evaporation takes place in the late fall and the ground by fall will actually contain more moisture than the areas not so covered. Winter-killing of the root is more liable to occur in a dry soil. This is not of special consideration in northern sections only, for winter-killing is often caused by alternate freezing and thawing, which has greater range in a somewhat dry soil than in a moist soil, for the more water a soil contains the less liable is it to frequent alternate freezing and thawing.

Cover crops were first used for the purpose of keeping frost from penetrating the ground, and at the same time prevent alternate freezing and thawing. It will prevent the latter as we all know from experience, and experiments go to show that a moderate mulch on the surface will keep the frost from penetrating less than half the depth that it will on unprotected area. The frost penetrating the soil may not prove injurious, but alternate freezing and thawing must be guarded against.

WHEN TO PLOUGH UNDER.

It is usually not advisable to plough under a cover crop in the fall. There is much less liability to washing of the surface soil, and the mulching effect is better if the crop is on the surface. It also serves to hold the snow which is one of the best protective covers we can have.

Personally I think it does not matter whether the cover crops stand the winters or not. In fact, the only advantage that I can see in having one that will stand the winter is to dry out the ground early the following spring. The danger, however, is that we may allow them to grow too long before plowing under and rob the ground of such moisture that might have been conserved, and also deprive the tree of its full early spring breakfast.

The following experiments which I personally conducted show the effect of winter rye and red clover in reducing the moisture contents of the soil as compared with the early cultivated crimson clover plot. A plot on June 20 was also compared as to the percentage of moisture at different dates. These plots showed how quickly the moisture contents of the soil can be reduced by crops in the orchard in the spring and early summer months.

Date samples were taken	Winter rye	Oats sown June 20	Crimson clover plowed under May 13	Red clover pl'd net
May 12	....18.41	20.00	20.88	18.93
May 20	....17.21	18.02	21.21	18.97
June 9	....12.52	17.84	20.31	14.04
June 23	....10.46	17.40	20.46	11.65
July 7	.... 9.06	16.70	19.14	11.22
July 21	.... 7.46	13.43	20.54	12.06
Aug. 4	.... 8.23	9.49	18.11	10.36
Aug. 18	.... 9.80	10.30	20.26	13.66
Sept. 6	....17.79	16.99	24.04	20.22
Sept. 20	....14.91	16.31	18.09	19.87
Oct. 31	....21.33	19.77	26.02	19.71

The clover plot was given clean culture, and no cover crop was used on any of these plots. The fall was a moderately wet one, and these plots each contained approximately 20 per cent of moisture, which amount our experiments indicate is about right for the most successful wintertering of the tree. One of the bad effetcs of drying out the soil early in the spring is that the subsoil water is lost, whereas it should be retained for the water later on, as it is this water on which the crop depends later in the season. The tabulated data shows only the condition of the soil to one foot in depth, but soil to a greater depth would show as great a variation.

The Use of Legumes.

It is advisable, except in cases where the ground has an excess of nitrogen, to use leguminous cover crops. The crimson clover and common vetch we prefer. Both of these make an ideal cover. The math is not objectionable at picking time, and it forms a good protective covering. We find that the clover can be worked under with greater ease, and for that reason we use it principally. The two mixed together are good.

Red clover does not make sufficiently rapid growth, in my opinion, and we do not use it except in our comparative tests. We get a much better protective covering with the crimson clover, and a much greater bulk of material to turn under.

A mistake is often made in using too little seed. Never use less than 25 lbs. of crimson clover seed and 75 lbs. of vetch seed per acre.

In seeding to clover we run over the ground with a tilling spike tooth harrow, sow the seed and harrow with this tool again having the teeth upright, and again harrow with the teeth tilted to leave a perfectly smooth surface. The seed can be safely worked into a greater depth than is the case with the smaller red clover seed. In seeding vetch I prefer to use the springtooth harrow which leaves the soil more in ridges and after seeding this in again used followed by the leveling harrow.

I have never yet had any difficulty in getting a good catch from seeding on a properly cultivated area. If the ground is thoroughly dried out on the surface there may be trouble, but in such cases I would advise working in the seed more deeply.

GENERAL

THREE BAD WEEDS

How to Eradicate Couch Grass, Sow Thistle and Bindweed.

On my farm, I am troubled with couch grass, sow thistles and binder vine. They are bad weeds and hard to get rid of. What is the best way to handle them?—A. R., Albert county.

Couch grass, which is known under a variety of names such as quack, quick, scutch, twitch and quitch grass, is one of the very worst weeds to eradicate and one that is causing perhaps as much loss in farm crops in Canada as any one, in the altogether too long list of noxious weeds in the country. In order to fight couch grass successfully, and I say "fight" advisedly, for it will be a fight to subdue it, let alone eradicate it, one must remember that it is a perennial, that it has underground root-stalks and that they grow near the surface, at least growth takes place in the first four inches of soil. The root stalks are very sappy and tough, and have joints that will grow when cut into pieces as with a disk harrow.

Naturally, then, any method for smothering out such plants will be the most successful methods to use. This may be done through methods of cultivation or with rapid and rank growing crops when the root stalks have been weakened by repeatedly growing out some of its energy. For instance, if the soil, bad with couch, has been well worked from the time the ground was dry enough in the spring, until the last of June or first of July, so that no leaves have been allowed to form (but frequent attempts will have been made to do so through that rapid growing season of the year), and buckwheat or millet sown, they will pretty effectually smother out the root stalks. If planted to hoe crops even the last of May or first of June, and thoroughly cultivation given to the crop afterwards, it will keep it down pretty well. In the spring preparations, a disk harrow may be used to keep everything cut fine on soils which will admit of it.

Of course, the bare fallow if followed up well, will smother out the couch, or anything else for that matter. The broad shared cultivator is a very useful implement for that purpose.

On heavy soils the following method is a good one: Allow the couch grass to grow until it begins to shoot out a head. Put horse force enough on a plow to plow it, eight or nine inches deep, and cultivate the surface well to prevent any growth coming through. This will usually effectually smother the root stalks, with as little trouble as any method I know. The drier the ground at the time of plowing, provided it is crumbly, the more effectual is the work.

Early after-harvest cultivation is another good method. Plow shallow with a gang plow, and with a spring-tooth cultivator and harrow, bring as many root stalks on the surface of the ground to dry out in the hot August and September sun as is possible. Kill them in the soil if possible, but it may be necessary to rake them up and burn them or cast them off the field. Plow, cultivate and harrow again and bring another lot to the surface.

Use the frost to help. In the autumn couchy land may be ribbed or plowed shallow and cultivated. In either case the object is to get as many root stalks exposed to the hard frost as possible, where they may be frozen to death is snow does not cover them too soon in the autumn.

When seeding down a field that has patches of couch grass, it is good practice to sow some extra clover seed on these patches as it helps to smother the root stalks. Couchy land should not be left seeded longer than one or two years at most, unless it is kept for permanent pasture. In time the root stalks get so thick that the grass grows very spindly and while weak may be plowed down deeply.

A combination of some of the foregoing methods will often give good results.

Perennial Thistle—This is another perennial with underground root stalks and spreads itself by seeds as well, which are carried long distances by the wind. It is a difficult weed to kill, but it can be done most effectively by something it with cultivation after pasturing it very closely with sheep, which are particularly fond of it.

If meadow land of two or three years' standing, which it bad with sow thistle, be plowed shallow after the crop has been cut for hay or pastured off and good cultivation given it for two weeks or so, then if rape be sown in drills on it and the cultivation continued it will be pretty effectively killed.

Summer fallowing with a broad shared cultivator after the first plowing, and doing it frequently enough that no growth appears above the ground will kill it.

Allowing them to grow until about ready to blossom, then plowing them down and cultivating with a broad shared cultivator, and then sowing with rape as before suggested, or buckwheat, will kill it. Ordinary cultivation in a live crop, however, will not do it effectively.

Field Bindweed—By binder vine, I presume that field bindweed or wild morning glory is meant. This is without doubt the hardest perennial weed we have to kill. Fortunately it does not spread much by seed, but small pieces of rootstalk trailed about the field will start up new colonies.

The most effectual remedy is smothering it with tar paper held down to the ground with rails and stone s and placed far enough over the outside of the patches that no light and as little air will get to the plants as possible.

Good thorough cultivation two years in succession in a hoe crop, by watching the patches closely enough that no leaf is allowed to show itself above ground, will will it.

Any farmer who follows a three or four years rotation in cropping, in which a hoe crop is followed by seeding down with red clover, need not worry very much about any of the weeds, and these three mentioned are about the worst. Had bladder campion also been mentioned he then would have had a quartette which could sing a song of persistence with any of the weeds and win out every time. They all can be handled successfully, however, but the price of diligence, persistence, knowledge, use of good implements, etc., must be paid. Sow only weed-free seeds of any kind.

A book entitled Farm Weeds, published by the Seed Branch of the Dominion Department of Agriculture, Ottawa, gives up-to-date information about weeds and weed eradication. It has a lot of colored plates of the weeds and may be had for $1 by applying to the Superintendent of Stationery, Printing Bureau, Ottawa.—Answered by T. G. Raynor, Ottawa.

DAIRY

BUTTER ON THE FARM

Creaming the Milk--Preparing the Cream--Churning.

Buttermaking on the farm may be considered advisable under certain conditions—where there is plenty of skilled labor, when not convenient to a creamery or other market for milk or cream, when there are a sufficient number of cows kept to make the business profitable, where a proper dairy and modern utensils are provided, and where a good market is available. Profitable butter making on the farm is possible without these things, but they assist materially in obtaining success.

Leaving out the question of cows, feeding of cows, stabling, etc., we may start with:—

Two facts explain the separation of cream from milk. Fact one is that cream, or the fat globules of milk, are lighter, or of less specific gravity, than is the skim milk, or milk-serum. Fact two, is that a natural force is made use of, in order to cause the separation.

The average specific gravity of milk-erum (milk, minus the fat) is about 1.036. The average pecific gravity of milk-fat is about 9. The difference in the two gravities, or weights is .136 of a pound, which is sufficient to cause a separation of cream on milk set in shallow pans in about one second of time, if there were no friction on the fat globules caused by the undissolved casein and possibly otner compounds in the milk, which retard the upward or buoyant tendency of the tiny globules of fat. This force which causes the fat globules to rise in the form of cream, is known as the force of gravity.

In the case of the more modern centrifuge or cream separator, we have two forces at work—centrifugal and centripetal. The one, centrifugal, causes bodies acted upon by it to fly away from the centre or axis of motion. The other, centripetal, causes bodies to seek the centre. These forces are produced by a rapid revolving body, and are proportional to the diameter and speed of the rotating body.

In the case under consideration the centrifugal force causes the heavier skim-milk to go to the farthest point in the separator bowl, while the cream under the influence of centripettal force seeks the centre of the bowl. Because of the pressure of the whole milk entering the bowl, these two, skim-milk and cream, seek suitable outlets at points in the bowl which are so arranged as to correspond with their specific gravities. The natural outlets for these are at a point at or near the centre of the bowl for the cream, and at some point farthest from the centre for the skim-milk. In order to reduce the driving or operating power, manufacturers bring the skim-milk to a point near the centre of the bowl before discharging it from the centrifuge.

So much for the theory of creaming. We may next consider its

One or more of three methods of creaming milk is followed in nearly all parts of the world—small shallow pan, deep-set can in cold water, and the modern cream centrifuge or eparator. Good results may be obtained by all these systems, if the conditions are right. Fine butter can be made by setting milk in pans or deep cans for the cream to rise, but the risks are greater than with the centrifugal system, and there is required a longer time in order to obtain the cream.

For good results in small shallow pans creaming, the milk should be strained into clean tin pans, having no seams, as soon as possible after the milk is drawn from the cow. The air in the room where these pans are set should be pure, cool and free from dust, flies and draft. The cream should be removed in about 24 hours after setting by loosening the cream from the edge of the pan by means of a thin-bladed knife (not the finger) and then allow the cream to glide over the edge of the pan into a cream can or glazed crock.

The deep-setting method requires cans about 8 inches in diameter and 20 inches deep, and are preferably plain without tap or glass, having a tight fitting cover. Strain the milk into these at once and place in cold water, so that the milk may be quickly cooled to 45 deg. F. or lower, but not allowed to freeze. The cream may be removed from the top of the cans with a reverse cone-shaped dipper having no wire-rim or other obstruction to prevent it sinking into the cream layer with the least disturbance of the cream.

In both methods of gravity creaming, the cream should be removed before the milk cours, although no special harm to the cream will result if the milk begins to "lopper" around the edge and at the bottom before removal of the cream from pans.

The cream separator operated by hand, or some other form of power, is now so common on dairy farms that no special description is necessary. Which is the "best separator"? is a question not yet decided so far as we know, except by the manufacturers and agents of the various machines on the market. There are, however, a few good points that each and every cream separator ought to possess—failing these, the results are not likely to be satisfactory. A hand-driven machine should be easy to operate, easily kept clean, be durable with care, produce a cream testing 30 to 35 per cent fat, leaving not over .05 per cent fat in the skim-milk and should be of such a make that repairs may be got conveniently. If driven by power, provision should be made to attain speed slowly so as not to strain the machine. Where cheap electrical power is available, a motor attached to the separator promises good results.

Cream from the separator should be cooled at once and before mixing with cream from previous separations. It is scarcely necessary to add, that the separator parts coming in contact with the milk and cream should be washed after each time of using and kept clear at all times.

When sufficient cream had been collected for a churning, it should be warmed to a temperature of about 65 deg. F. for ripening, if sweet cream butter is desired. Pasteurization of the cream is advisable in winter, or whenever there is difficulty in churning or with the flavor of the butter. Heating the cream to 150 deg. F. for ten or fifteen minutes, then cooling to 65 deg. F. with the addition of a culture (starter) will insure uniformly good results.

The cream is "ripe" when slightly our and thickened, glossy in appearance, and of pleasant flavor. Such cream, testing about 25 per cent fat should churn in 20 to 30 minutes at a temperature of 60 deg. to 64 deg. in winter, and 58 deg. to 60 deg. in summer. Pasteurized cream will usually churn at about 2 deg. lower temperature than will similar cream unpasteurized.

The common barrel churn, revolving end over end is the simplest and best form of churn. This form of churn ought not to be filled over one-third to one-half its capacity, for good results.

When he butter reaches the size of grains of wheat the churn should stop and the butter-milk be drawn. Add as much water as there was cream, at a temperature about the same as that of the cream, or lower in hot weather, and revolve the churn rapidly a few times in order to free the buttermilk. Remove the wash water, and allow the butter to drain a few minutes. The butter may be salted in the churn or on a worker. Apply fine salt at the rate of ½ to I ounce per pound of butter and revolve the churn, or apply the worker. Work gently and with a downward pressure if using any form of a lever worker. Butter salted in the churn requires very little working. When the salt is evenly distributed, the body close and waxy, the color uniform and the surplus moisture expelled, the butter may be said to be worked sufficiently. Avoid overworking which produces a greasy, poor-flavored butter. If selling at once the butter may be put into oblong pound prints, or any other shape suitable for the market to which it is sent, and should be wrapped in parchment butter paper branded with the name of the farm, or the dairy where manufactured. Good butter thus advertises itself.

For shipping the prints, a return package may be used, holding the number of print most convenient for farm and customer. A spruce box made of dressed half-inch stuff and lined with paraffine wax, we have found satisfactory for shipping pound prins to private customers. A box 11 in. long, 9¾ in. wide and 8 in. deep, (inside measurements) will hold 24 pound prints.

For success in farm butter-making, there is needed good, clean, healthy cows, plenty of succulent good-flavored food, suitable utensils, a good market, but most important of all—a person who knows how to make and is fond of making good butter. Where the by-products can be utilized to advantage on the farm, and where there is a good market, butter-making is one of the most profitable lines of dairy farming.—Prof H. H. Dean, Ontario Agricultural College.

STOCK

ECONOMY IN FEEDING

Facts and Figures for the Stock Feeder.

One of the most important problems of the farmer is to feed his animals economically. He must provide the nutriments the animals need, and must supply these needs with feeds that are palatable. As a rule, farm-grown feeds, with the exception of alfalfa and clover, are lacking in protein; that is, there is not a large enough proportion of protein to carbohydrates to form a balanced ration. If one is feeding fodder corn, timothy or slough hay as a main part of the roughage, he must make up the shortage in protein by grain feeds containing a relatively large proportion of protein. The grain feeds commonly used for this purpose are bran, middlings and oil meal. These feeds must be purchased, and as a rule they cost more per pound of nutriments contained than do such farm feeds as corn or barley.

If one can so arrange his farm operations that at least half of the roughage fed will be either clover or alfalfa hay, the protein provided in the roughage will be sufficient to enable him to use farm-grown feeds, as corn or barley, for the main portion of the grain ration. Clover can be grown more cheaply than timothy or fodder corn. Hence, it is the part of wisdom to make every effort to have clover for at least a portion of the roughage.

Careful feeding experiments show that when feeds are fed in a balanced ration, the digestible nutriments contained in grain feeds are worth about as follows: Carbohydrates, one cent per pound; fat, two cents per pound; protein, four cents per pound. Comparing feeds on this basis, when bran is worth $20 per ton, we find that corn is worth $22.66 per ton. Bran can now be purchased, say, at about $20 per ton, while on the farm corn is worth about $15 per ton. Thus, if we use corn, we get over $22 worth of feed for $15; while if we use bran, we get $20 worth of feed for $20. This makes plain the advantage of feeding as large a proportion of corn as is consistent with the requirements of the animal.

Feeding experiments have shown also that the nutriments in well cured roughages are about sixty per cent. as valuable as nutriments in grain. On this basis, when bran is worth $20 per ton, clover hay is worth $8.88 per ton. As it costs but $8.30 to produce a ton of clover hay on the average farm, it is seen that forty cents will produce as much food value in clover hay as can be purchased in bran for $20. These facts indicate the value of making the ration as largely of corn and clover hay as possible.—A. D. Wilson, Minnesota Experiment Station.

HANDLING YOUNG LAMBS

We still find on our farms and markets, every year, a large number of lambs that for some reason or other have not been castrated or docked as lambs. The failure to castrate is possibly due to the fact that it was thought best to keep the lamb for a ram, and later it did not prove to be a good-enough individual, and so it was put in the feed-lot. For neglecting to dock there can, however, be no excuse, except that of carelessness on the part of the breeder. All sheep should be docked, because it is economical and beneficial from every point of view. A sheep that is not docked usually has several pounds of manure on the fleece and tail during the winter, making it disagreeable to handle, besides being an unsatisfactory animal for breeding purposes or the feed-lot.

Lambs should be docked and castrated when they are about ten days or two weeks old. Little or no loss should occur from either operation, provided it is properly performed, on lambs about that age. The easiest and most satisfactory method of castrating young lambs is by drawing the testicles. Lay the lamb on its left side and with a sharp knife cut off the top of the scrotum and draw the testicles. When two men do the work, let one put the lamb between his knees and draw the hind legs forward while the operator removes the testicles. Tis may be done with either the fingers or the teeth. The cord will break readily, and there will be but little trouble from loss of blood. It is well to apply a little tar or dip of some kind to the wound. Dock the tails about an inch to an inch and a half from the body. For this, use a sharp knife or a chisel, and put the tail on a solid block to perform the operation. Newly-docked or castrated lambs should never be permitted to stand in pens or lie in places that are filthy. A little care and attention given the matter, during the early spring months is time well spent.—W. H. Tomhave.

TUBERCULOSIS

Feeding experiments, conducted by the United States Bureau of Animal Industry at Washington, have conclusively proven that hogs are readily infected with tuberculosis through taking into the stomach the faeces and milk from infected cattle. Meat inspection figures show that about one per cent of the cattle and more than two per cent of the hogs slaughtered are tuberculous. This condition is certainly alarming, and should appeal to farmers to provide the best sanitary stock. Pure air, sunshine and wholesome food are the best preventatives against disease, and it is evident that this disease in hogs can be materially reduced by eradicating it from cattle or by segregating them.

TORY MOVE TO KILL RECIPROCITY FAILS

Borden's Motion Beaten by 41—Sifton and Nationalists Voted With the Opposition—Debate Resumes With Lloyd Harris, an Implement Manufacturdr, Speaking Against It.

Ottawa, March 8—By a vote of 111 to 70, proclaimed amid prolonged Liberal cheering, the house of commons decided tonight that there should be no waiting on Washington.

By a majority of forty-one the proposal of the Conservative leader to postpone further consideration of the reciprocity trade agreement was negatived. The vote came at the close of a brisk debate in which the minister of finance declared that prompt and business-like consideration of the arrangement was "an obligation of national honor on the part of Canada with the government of the United States."

"Whether or not the proposed arrangement is wise or otherwise is a legitimate subject for debate," declared Mr. Fielding, "but whatever our views, there should be no difference of opinion upon the fact that to withdraw the arrangement would be a breach of faith dishonoring to the government of Canada and through the government to the parliament and the people of Canada. The president of the United States has loyally kept faith with us even to taking the extraordinary step of calling a special session of congress."

Alluding to the letter of Sir William Van Horne, which had been read by Mr. Borden, the minister of finance said: "If it is to be an alignment with Sir William Van Horne and various other estimable 'sirs' on the one side, and the toiling masses of the people on the other, there is no question as to which side the Liberal party will be found."

Vote Considered a Test.

The vote furnished the first indication as to the sentiment of the individual members upon the proposals. Hon. Clifford Sifton and Lloyd Harris voted with the opposition, while W. M. German did not return to the chamber for the vote.

Amid Liberal cheering, W. O. Seely, whom the Conservatives were fondly quoting as a "bolter," recorded his vote for the government.

There were several Conservative absentees. Mr. Gilbert and all the Nationalist members were greeted with ironical laughter as they registered their votes in favor of the Conservative "hoist."

There is considerable gratification and keen satisfaction among the Liberals tonight over the fact that all the opposition have been put on record, particularly in view of the solid vote of the western Conservatives, maritime province and Quebec Nationalists against further consideration of the reciprocity trade arrangement.

Liberal members declare they desire no better campaign material for the next election than to point to the Tory effort to kill the reciprocity proposals. The issue is now clear cut and both sides are on record, though there is considerable doubt whether the opposition will be able to hold all the units of tonight following in the final vote upon the merits of the agreement.

R. L. Borden.

In introducing his resolution, Mr. Borden declared that the address of the prime minister had left him more opposed to the compact than he was before. Sir Wilfrid was fond of epithets, but he had been surprised to hear him characterize the protests of the fruit growers, the millers, the packers, even the eighteen Liberals, as the howling of wolves. Wolves sometimes stood savagely at bay.

He charged that the government had no mandate from the people for their action. They had a better mandate to abolish the senate. Nothing was to be lost by Canada holding its hand. The Democratic party in the United States were pledged to a lowering of the tariff and it was a most inopportune time to make any treaty. He declared his opposition to any system of "Secret tariffs."

In concluding, Mr. Borden declared that he stood for the empire against the world, and within the empire he stood for Canada.

Hon. Mr. Fielding.

Hon. Mr. Fielding, in replying, at once hit the nail on the head. The real object of the amendment, he declared, was to enable the opposition to dodge the vote on the merits of the agreement itself and agree on a proposal for postponement. But the government, knowing that the more thoroughly the people of Canada came to understand what was actually proposed the more enthusiastic would be their support, was prepared to have the question thoroughly discussed upon its merits. There would be ample time given for this discussion.

He declined to follow Mr. Borden in the arguments against the agreement which the opposition leader had again traversed.

Sir Wm. Van Horne and various other estimable "Sirs" had been largely quoted from the opposition benches but as between them and the toiling masses of the people there was no question as to where Liberalism would be found.

The real issue raised by Mr. Borden was as to whether the discussion of the agreement should be proceeded with, or whether the whole arrangement should be thrown overboard. The Canadian government, on the one hand, and the Taft administration, on the other, had bound themselves to present the agreement to the legislative body of each country for consideration and ratification. President Taft had loyally lived up to that agreement, and had further shown his good faith by calling a special session of congress to deal with the question. For Canada now to refuse to further discuss the question would be a breach of faith which would dishonor both government and parliament. The argument that Canada should wait to see what the other side would do was to his mind, a childish one.

Hon. Mr. Foster characterized the position of the minister of finance as "Arbitrary, tyrannical and opposed to free government." What he demanded was that the people of Canada should have an opportunity to pass upon the agreement at a general election.

W. F. MacLean said the government had assumed the role of the three tailors of Tooley street who dubbed themselves "The people of England, "There sit the people of Canada," he shouted, pointing to the premier, minister of finance and minister of customs. "The master tailor with his two apprentices on either side of him."

Mr. Northrup opined that the government was traversing a tragedy of errors, and warned the prime minister that if there was any attempt at closure of the debate on the arrangement, "We will come nearer having a rebellion in Canada than we have ever come before."

Hugh Guthrie.

Hugh Guthrie, in a brief fifteen minutes, presented the argument in a nutshell. If, he said, the proposals brought down by the government were a good thing for Canada, why should parliament decline to discuss them altogether independently of what congress might say? On the American side there could be no subtraction from the benefits accorded Canada without the agreement falling through entirely. If congress chose to grant more than was now offered it would not affect Canada's position in ratifying the agreement. It could reasonably be presumed that the incoming congress would decide on the question within a short time.

As to the argument that the people should first be given a chance to vote on the question, he pointed out that parliament was authorized and was always expected to deal with the fiscal question. The members represented the people and could be trusted to accurately voice the general desire of the country.

The real motive underlying the motion for delay was to get a snap verdict before the people had a chance to thoroughly understand the agreement and before the benefits which would accrue from it had had their effect in influencing the electors for the general election, which must come soon in due course.

The labored argument of the preceding speakers with reference to the danger of competition from favored nations, which would secure the same terms as the United States, he characterized as mere nonsense, when examined. If Canada could now compete successfully in the markets of Great Britain with Argentine in cattle and wheat, it was absurd to think that there would be any danger from such competition in the home market.

Sir Wilfrid Laurier.

Sir Wilfrid Laurier took five minutes to puncture the opposition argument that the government in asking parliament to ratify the agreement was departing from constitutional principles. Tariff treaties had been brought before parliament time and again for ratification. The first reciprocity treaty of 1854 had been so dealt with, and Mr. Foster, himself, had required parliament to ratify the French treaty of 1893 negotiated by Sir Charles Tupper "in secret."

Liberal Majority 41.

The confidence of the Liberals in the benefits of reciprocity, as defined in the agreement, was shown by a vote which was taken immediately upon the resumption of the sitting after dinner.

Sir Wilfrid was expected to have continued and it had been predicted that the debate on Mr. Borden's motion would be continued for a couple of days. However, Sir Wilfrid did not feel it necessary to go on, and no one volunteered from the Conservative side to continue. A vote was called and only seventy members voted for the Borden amendment while 111 voted against it, leaving the government with a clear majority of 41.

Mr. German was not in the house and only Hon. Mr. Sifton and Lloyd Harris broke away from the government and voted with the opposition.

The interest on the question was evidenced by the very large number of members on hand so early in the evening to record their votes.

Immediately following the division the debate on the reciprocity proposals was resumed by Lloyd Harris, who, in view of his vote, was accorded an enthusiastic reception by the Conservative benches. He declared his intention to oppose the government proposals on the ground that the government had no mandate from the people, that the method of effecting the arrangement was not sufficiently public, that the prime minister had committed himself to investigation by commission prior to tariff revision and that it was "injurious to the pride of Canada."

His present position, he said, was in no way prompted because he had an investment in an industry engaged in manufacturing agricultural implements. Both parties had made a political football of the tariff on these implements to catch the vote of the west. He was not a high protectionist but believed that the tariff was the only way to get revenue. As agricultural implements were indigenous to the soil they should not have a high duty but manufacturers were paying high duties for their raw material, machinery, coal and factory supplies. The firm with which he was identified had acquired a plant in the United States because they could manufacture more cheaply for export there. Under the proposed arrangement the development of this industry would not be in Canada but in the States.

H. H. Miller, who followed, noted that Sir Wm. Van Horne was not the man to say to Canadians: "Stay where you are and let things alone." Sir William was a United States citizen, not a Canadian, but he did not stay in his own country. He came to Canada anud made his hundreds of thousands out of the Canadian farmers and others. Then he spent the money he had made out of Canada in developing Cuba. It was not for him, therefore, to tell Canadians to stay at home.

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IS SUSPENSION BRIDGE SAFE?

Fredericton, March 7.—Mr. Lowell, in the house today, gave notice of inquiries about the suspension bridge at St. John, and the government's reply will be awaited with no little interest. The questions indicate that the bridge has been reported dangerous by an engineer but that the government has not made the public aware of the risk incurred by crossing the structure. Mr. Lowell's very significant questions follow here:

1. Has the government caused any examination of the suspension bridge at St. John to be made for the purpose of testing or estimating the sufficiency of the cables which support the structure? If so, when was such examination made, by whom was it made, and did such examination extend to any other parts of the bridge, and if so to what parts?

2. Is it not true that during winter storms the margin of safety indicated by the strength of the cables supporting the bridge is much less than prudence and safety require and dangerously near the breaking point?

3. Is not the swaying motion of the bridge, as at present caused by a heavy gale dangerous? Is not its lateral stiffening insufficient?

4. Are not some of the anchor chains of the bridge so seriously weakened by exposure and from other causes as to be of uncertain strength? Are not certain parts of the iron work connected with the anchorage, exposed to strains which are excessive and greater than what is regarded as the breaking limit? Are not some of the anchorages so weakened that they will likely give way under a strain less than the cables will hold?

5. Are there not cracks visible in certain portions of the anchor beams? Is not the repair work around the same insufficient and of doubtful strength? Does the government consider all the anchorages of the bridge to be in good condition?

6. Is not the government aware that the margin of safety of the bridge, as a whole, is smaller than prudence and safety demand?

7. Has not the government been notified by the report of a specially detailed engineer that no considerable loads should be allowed upon the bridge during a heavy wind? If any such information has been received has the public been notified of the danger? Is the government unaware that the public has been continuously using the bridge under conditions alleged by the report of the specially detailed engineer to be unsafe? Why has such report been concealed from the public

Celery can be much improved by soaking it for an hour in ice-cold water in which a lemon has been squeezed.

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WANTED—A teacher to t[illegible] school, Sisson Ridge, [illegible] Apply to Percy Elliott, secre[illegible] 17

WANTED—A second or [illegible] teacher for school distric[illegible] ish of Lepreaux. Apply, s[illegible] Hugh Kilcup, New River Mi[illegible]

WANTED—A second or [illegible] teacher to commence sch[illegible] District rated poor. Apply, s[illegible] to N. H. Johnstone, secretar[illegible] Settlement, N. B.

TEACHER WANTED—A [illegible] female teacher to take ch[illegible] View school, commencing f[illegible] next. District rates poor. A[illegible] salary, to George E. Goug[illegible] North View, Victoria county [illegible] 1409

WANTED—A second or th[illegible] male teacher for North [illegible] parish of Petersville (district [illegible] Apply, stating salary, to W. [illegible] retary, Clones, Queens county

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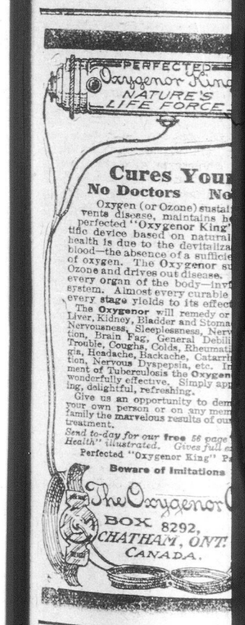
FOR SALE—To close an es[illegible] seventy acres in the ce[illegible] village of St. Martins; has [illegible] story house, bath room and [illegible] supply; two large barns. Pos[illegible] phone, custom house and rai[illegible] close to farm. Cuts a quantity [illegible] hay, free of stone and, comma[illegible] did view of bay and village. [illegible] scription, terms, etc., apply to [illegible] lin or Mrs. James Wishart, [illegible] St. John County, N. B.



Charlotte County Man I[illegible] jured.

St. Stephen, March 6—Charl[illegible] of Hayman Hill, met with a s[illegible] dent this afternoon while cu[illegible] near St. Stephen. An axe in th[illegible] another man who was cutting [illegible] a tree that they were about to [illegible] and struck him in the arm, s[illegible] bone. He was taken to the hosp[illegible] the bone was reunited, and [illegible] that the arm will be saved.

DISEASE WAS SPREA[illegible]
TILL D. D. D. CURED
This is a translation of a lett[illegible] us in French, on April 16, 19[illegible] Dan Babineau, Cap Lumiere, N[illegible] "I had been suffering with [illegible] about 6 months, and had consul[illegible] doctors who did not do me any[illegible] disease was spreading and I wa[illegible] comfortable. I thought I would [illegible] All my friends were telling m[illegible] lose my hands unless I found [illegible] treatment.
"One day I read in the Messe[illegible] your D. D. D. treatment and a[illegible] sample. It did me so much g[illegible] immediately ordered two large [illegible] took eight bottles altogether t[illegible] of this terrible disease. I shal[illegible] without a bottle of D. D. D. in [illegible]
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