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V. 17 # 6

Toronto, August 6, 1901.

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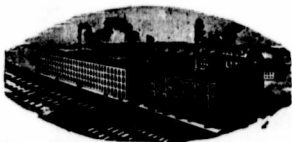
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The Farming World

For Farmers and Stockmen

VOL. XIX

AUGUST 6th, 1901

No. 6

Our Great West.

(Editorial Correspondence.)

CANADIANS have a rich heritage in the great country west of our inland seas. It is here that the greatest development of the next few years will take place. The immense fertile plains stretching west to the Rockies and north to the regions of almost perpetual snow, have wrapped up beneath the unturned sod capabilities that the inhabitant of Eastern Canada little dreams of. The twenty years which have elapsed since the great agricultural capabilities of the West were first recognized, have wrought great changes. The open prairie has given place to populous cities, towns and villages, and acres and acres of waving wheat fields, which this year give prospect of an abundant harvest, now cover the wild prairie, a source of wealth and prosperity.

But there is much to be done yet, and thousands of acres of fertile lands are yet awaiting the plowshare, in order to give forth their abundance. It is more people this great country needs. And unless all signs fail, more people this land will have, and that very shortly. For the young farmer with little capital and lots of energy and push, the opportunities of the West are many-fold. Here the very best that is in him has full chance for development.

The people of this great land are full of hope. It is in the air, it is everywhere. In all our travels so far we have not met one who is despondent as to the future of the West. If anything, they are perhaps too much the other way, and put their trust in the future rather than in making the best of the present. The years of big wheat crops are the ones remembered and looked forward to. True, the more practical and common sense farmer has begun to realize the folly of this to some extent, and by engaging more extensively in live stock husbandry is not so hard pushed when these years of big wheat yields are absent. But we will have more to say along this line in a later issue.

This year, at any rate, all eyes are centered on wheat, which from all reliable accounts will excel any previous record, both as to the quality and quantity of product. So sure are many of the farmers of this that they are already beginning to negotiate for buying more stock and laying plans for investing the proceeds from the harvest. And there is every reason to believe that their hopes will

be realized. There are only two things that might perhaps come in the way. The country has had enough rain to satisfy the needs of the growing crop till it is harvested, and any extended rain might cause a lot of the grain to go down, especially where the crop is heavy and on low ground. Another drawback might arise in the inability of the farmer to get sufficient help to take off the crop. This is, perhaps, the more serious problem of the two. Where every farmer has from 200 to 500 acres of wheat to harvest a lack of sufficient help to gather it in in good shape would mean a serious loss.

For the crop of 1899 the Canadian Pacific Railway brought into the West over 10,000 harvest hands, and every one of them was needed. This year the crop is at least one-third better than two years ago, and there is a largely increased acreage; therefore, fully twice as many hands will be required to take off this year's crop as in '99. But where are they to come from is the problem? The people of the West are looking to Ontario for the great majority of them. Will she be able to send them? We must confess to having grave doubts on the matter. The bulk of these 20,000 men should be on the ground by August 10th, as the harvest will be earlier than usual. To get this number in on time is not an easy task. But this bumper crop must be saved.

Wool or Mutton.

The "Lyttelton Times" (New Zealand) says: An aspect of the sheep-farming industry in New Zealand which has not hitherto received much consideration from flock-owners has been brought into prominence at the wool sales in the various centers, particularly in the South Island, this season. This is the increasing scarcity of wool suitable for the requirements of the local woolen mills. Year by year a steadily increasing quantity of the tweeds, flannels, blankets and other fabrics used for clothing by our population is manufactured in the Colony, and year by year our sheep farmers devote themselves more and more to the production of meat—lamb and mutton—making wool, except in comparatively few flocks, a secondary consideration. It may be thought that with a yearly production of about 150,000,000 pounds of wool, the Colonial mills should find no difficulty in supplying themselves with the 4,000,000 pounds or so which they require for manufacturing purposes; but a

glance at the constitution of our flocks will show that the contrary is the case.

The Merino provides the chief staple demanded in New Zealand woolen manufactures, and the sheep returns show that of the nineteen millions of sheep in the Colony only some two and three-quarter millions are of that breed, and manufacturers find that much of the wool of even this small number of Merino sheep is unsuitable for their purposes. The result is seen in the keen competition which takes place at the local sales for suitable Merino wools, and which has raised their value to a level estimated at 4d. to 1d. per pound above the current London rates. The value of Merino wool in New Zealand is, in fact, at the present time governed by the local demand and not by London or Australian prices. Next in request by our mills is the half-bred description, the produce of sheep bred by long-woolen rams from Merino ewes or of sheep for the half-bred breed (now generally termed "Corriedale").

With so small a number of Merino sheep in the Colony, and the Corriedales numbered as yet by scarcely more than thousands, the mills have an even more restricted choice in this class of wool. The North Island affords practically no supply of the desired quality, and the South Island is, as already stated, so given over to the production of fat lambs as to furnish an extremely limited quantity of good half-bred hogget wool, and next to none of the wether wool, which manufacturers hold in such high favor. In fact it is not beyond the bounds of probability that the present methods of sheep-farming are persisted in the woolen manufacturers will be compelled to seek supplies of raw material beyond the Colony. They will not do so except in the last resort, for New Zealand is singularly free from the burrs and other pests which add to the difficulties of manufacturers, and the importation of wool from Australia, the nearest foreign source of supply would almost certainly involve the introduction of special machinery for treating it.

The cry to preserve the Merino may now be said to come from the woolen manufacturers as well as from the most far-sighted of those who desire to maintain the standard of our export of frozen mutton. The prices which have been obtained locally for wools suitable for local manufacture show that for such produce there is always a profitable market, irrespective of the vagaries of old-wool speculators, and sheep farmers will do well to bear this in mind.

Increase in Farms.

Farming in United States Becoming More Intensive.

During the past decade there has been an increase of over one million in the number of farms in the United States, or fully 24 per cent. This increase has been due to two causes: The opening up of new districts, and the sub-dividing of large ranches, plantations, etc., into smaller and more compact farms. A remarkable feature of this increase has been the large gain in the number of farms in the South Central States, which amounts to fully 60 per cent. There has also been a considerable gain in the north and west and a healthy increase in the South Atlantic States. But the North Atlantic States are about in the same position as regards the number of farms as they were ten years ago.

The largest new district opened up for settlement was Oklahoma, and our readers will remember the excitement that prevailed throughout the west when that territory was thrown open to homesteaders. There are only one or two small Indian reserves to be opened, and the Great Republic will have exhausted all her free lands. In fact, those to be opened up are so insignificant in themselves, that practically speaking, people looking for fine lands will have to journey beyond the confines of the United States to Canada at the North. There they will find good farming lands in abundance. With no virgin soil to tempt him, the United States will not be able to hold the foreigner as formerly.

The fact that the large ranches in the West are gradually being cut up into smaller and more compact farms is of considerable significance to agriculturists, and more especially to stockmen in other countries. The cheapness with which the Western ranches have been able to produce beef cattle has certainly made it harder to make the business of cattle feeding a profitable one in the older settled parts of the country. Likewise, the breaking up of her great ranches west of the Mississippi means less competition and a greater opportunity for the large ranching country of Western Canada. Everything points to a most rapid development of that portion of the Dominion during the next decade, and eastern breeders should not lose sight of that market for their pure bred stock.

Practical Butter Making.

MOTTLED OR STREAKY BUTTER AND SPECKS IN CREAM.

A series of practical articles on the management of a dairy have been appearing in *The London, England, Dairy*, for sometime back. The following is one of these and deals especially with mottled or streaky butters and specks in cream from a practical standpoint:

There are at least two causes that appear to produce these results—dried cream and the coagulation of the drops of milk by the action of germs.

In the autumn, when the cows are being dried off, and the milk remains for some time in the cow's bag, specks in the cream are very likely to appear. If the milk is minutely examined in a transparent vessel, they may be often seen developing at the bottom of the receptacle. The growing germs will curdle a small portion of the milk, and by the fermentation that centres round that spot gas will be formed in the "fleck," it will become lighter than the milk, and float to the top, where it will be found in the cream. At another time it will be developed in the cream and remain there, and when churned will not be broken to pieces.

These "specks" are sometimes developed by the action of air or sunlight. Of two pans of milk of the same setting, side by side, one will develop germs or specks, while the other may be quite free. The reason for this is that a bright ray of light striking on one pan of milk develops the germs more rapidly than that set in the shade. Specks will also develop in the milk from one cow, and not in that from another cow in the same herd, although both are subjected to the same influence in every particular.

Specks of dried cream may not injure the butter, but if the condition of the milk or cream is such as to produce "flecks" by coagulating drops of milk, such good butter cannot be made.

SPECKS IN BUTTER.

The specks in butter may be dried cream, but they are more frequently caused by bacteria in the milk. A current of air will quickly produce "flecks," hence the necessity that draughts should be avoided in the dairy. The germs may be in the air, or may be latent in the milk, but in either case the air will tend to develop them, and it will be best to cover the milk in a darkened room where there is no current of air (except, of course, that necessary for ventilation).

Note.—The safer plan is to cover up the milk set for creaming.

STIRRING THE CREAM.

Cream should be frequently stirred when waiting to be churned, especially in cold weather, and if exposed to the air, for unless the temperature is artificially regulated, the ripening will proceed slowly, and a thick crust of hardened cream will form on the surface, which, if not separated from the rest by being strained for churning, will be conveyed into the butter.

REMEDIES.

1. Scald the milk or cream whilst in a fresh condition and cool it again. Do not mix the milk of stale milkers with that of others.

2. Heat the milk to a temperature of 130 F. and cool again rapidly to 70 F., stirring during the process of cooling to prevent an albuminous skin forming, and preventing the rising of the cream globules.

Reasons.—1. The scalding kills the germs, while the cooling prevents their growth.

2. Stir the cream frequently whilst ripening, to prevent the growth of undesirable bacteria by letting in oxygen.

Loss in Weight of Eggs During Incubation.

During 1900 the West Virginia Experiment Station carried on a number of experiments to test the loss in weight of eggs during incubation, and a recent bulletin issued on the subject gives the summary of results and conclusions as follows:

1. Fertile eggs, when incubated in a normal manner, decrease in weight.

2. The eggs which hatched lost 4.17 per cent. of their weight during the first five days of incubation. During the seven succeeding days they lost 6.35 per cent. of the weight of the eggs at the end of the fifth day, and during the next seven days lost 6.98 per cent. of their weight at the end of the twelfth day.

3. One hundred fertile eggs of average size will lose 234.9 grams, or 8.23 ounces, during the first five days of incubation; 341.8 grams, or 12.05 ounces, during the next seven days; and 352.8 grams, or 12.44 ounces, during the next seven days.

4. The unfertile eggs lost 3.6 per cent. of their original weight during the first five days of incubation. During the seven succeeding days they lost 5.6 per cent. of what they weighed at the end of the fifth day, and during the next seven days lost 5.6 per cent. of their weight on the twelfth day.

One hundred unfertile eggs will lose 217.2 grams, or 7.66 ounces, during the first five days; 323.3 grams, or 11.40 ounces, during the next seven days; 306.9 grams, or 10.81 ounces, during the next seven days.

SUGGESTIONS CONCERNING THE USE OF THESE RESULTS.

Before placing eggs in an incubator they should be weighed upon a pair of scales reading to ounces. This may be done very conveniently by first weighing the trays, placing the eggs upon them ready for the incubator, and then weighing trays and eggs together. The difference will be the weight of the eggs. At the end of the fifth day the eggs and trays should be re-weighed, the loss in weight determined, and compared with the figures given in the summary and Conclusion of this bulletin. It is important, however, that the trays be thoroughly dry when first weighed, as wooden trays, especially when recently washed, may appear quite dry and yet contain several ounces of water, which will evaporate when the trays are placed in the incubator, and thus make the loss in weight of the eggs during the first five days appear larger than it really is.

Returned From Europe

The Hon Sydney Fisher, Minister of Agriculture, Ottawa; Prof. Robertson, Agricultural and Dairy Commissioner, and F. W. Hodson, Dominion Live Stock Commissioner, returned last week from England, where they have been during the past two months in the interest of the work of their several departments. We hope to have particulars regarding the work accomplished in a later issue.

Brandon and its Big Fair

(Specially Reported.)

The city of Brandon is the chief centre of Western Manitoba. It is surrounded by a fine agricultural district, and some of the best farmers in the Canadian West are to be found in this section. To the north a most delightful view is presented in the stretch of rising country covered with fields of wheat as far as the eye can see. In a north-westerly direction, about one and one-half miles from the city is located the branch of the Dominion Experimental Farm system that does duty for Manitoba. Lying directly west of the Brandon Farm is a well-equipped Indian school, and to the east, the Provincial Asylum for the Insane. These three public institutions, located as they are, within a mile or two of the city, make the outlook to the northward a most striking one, and one that will be long remembered by visitors to the West.

The Brandon Experimental Farm is looking exceptionally well at this season, and Supt. Bedford is to be congratulated on its splendid appearance and the excellent crops in prospect. Nowhere in the West, or for that matter, in the Dominion, are to be found better prospects for wheat, oats and other grains than on the Government Farm. But we will have more to say regarding the work there in a later issue. The Farm is a very popular institution among Manitoba farmers, who have profited very much from the experimental work conducted there. This season farmers' excursions were run to the farm from different parts of the Province, and they have been very largely patronized.

The city itself is an interesting one. Twenty years ago a small cabin or two marked the present sight of Brandon. To-day a town of fully six thousand people, with public buildings, well-laid out streets, fine private residences, etc., that eastern cities of much larger pretensions might well feel proud of. The central school is a magnificent structure with ample grounds well-laid out with walks and flowers, an indication of the important place the education of the children holds in the minds of Brandon citizens. And this is characteristic of nearly every Manitoba town. The school buildings are among the very best to be found in any of the towns or villages of the West, a fact that means much for the future prosperity and position of Western Canada.

But it is Western Manitoba's big fair with which we wish to deal more particularly just now. At Brandon every year is held a fair that takes a high rank among the larger exhibitions in the Dominion. It took place this year from July 23rd to 26th, and everything considered was a great success. The weather was rather unpropitious, which prevented the usual crowds from attending on one or two of the best days. However, the fair was largely patronized by farmers from many parts of the Province. The distances which people in the West will travel to shows of this kind is somewhat surprising. At the fair every day were to be found farmers who had driven ten or fifteen miles to

the station, and then travelled a couple of hundred miles to the fair. Many of these would return the same day after visiting the show. Evidently distances do not count in this great western country, and a few hundred miles' ride counts for little more than a street car ride to some Easterners.

The management of the fair displayed much commendable enterprise in their conduct of the exhibition. No less than four expert judges, three from Ontario and one from the United States, were brought at considerable expense to judge the live stock exhibits. In addition, Mr. A. S. Smith, of St. Thomas, Ont., was engaged to look after the races and attractions before the grand stand, and it is needless to say, that all these gentlemen from a distance, performed their duties to the satisfaction of all concerned. The attractions were of a varied and interesting character, consisting chiefly of horse racing, which seems to have a special fascination for the people of the West. They like to see things go in more ways than one.

The fair grounds contain eighty acres, and are well arranged for the purpose, with special live stock stables for horses, cattle, sheep and swine. The grand stand has a seating capacity of several thousand, and on the whole, the general equipment is ahead of that of many fairs of much larger pretensions in the East.

HORSES

The exhibits this year, on the whole, were good, and much better than a person fresh from the East would expect to see. As one would naturally expect, from what we have already said, there was a large display of light horses with some very good quality, indeed. These with the Hackneys, were judged by Mr. Alex. Galbraith, of Wisconsin, who pronounced the exhibit a very creditable one, indeed. Standard breeds were out in large numbers. This is perhaps to be regretted from an agricultural point of view. Ontario's experience with crossing these on the ordinary farm stock has not been satisfactory, and we feel sure that the Manitoba farmer has nothing to gain, and much to lose by breeding largely to this type of animal.

There was, however, a very good exhibit of heavy draft animals, principally Clydesdales, thus showing that not all the farmers of the district are wedded to the light classes. Especially was there a good showing of young animals, and Mr. Robert Beith Bowmanville, Ont., who judged this class, reported many of the young animals to be fit to enter any show ring in the country. We have not space here to deal with the exhibits in detail.

In the stallion classes Mr. J. A. S. McMillan, Brandon, was the largest winner, capturing the championship and several firsts. His imported stallion, Dukedom, won the silver cup given by the Dominion Clydesdale Association. In three year old stallions, an animal, bred by Graham Bros., Claremont, was first. He was shown by W. Swenerton of

Carberry. Another winner was Mr. Cahoun, of Brandon.

In the classes for mares and fillies, some very good animals were shown. In this section, Mr. James Thompson, of Hamiota, was the chief winner with McMillan and John E. Smith, Brandon, well up the list. McMillan's yearling filly was a particularly good one. There were one or two Shires and Percherons shown, but it was evident that the Western breeder is very much inclined toward old Scotland's favorite, the Clydesdale. Some very fine general purpose teams were shown.

CATTLE

The display of cattle was hardly up to that of other years. Among the beef breeds the Shorthorns predominated, there being one or two very good exhibits, especially that of Mr. John G. Barron, of Carberry, who was chief winner. His bull, Nobleman, purchased at John Isaac's sale last fall, was first. A young bull, son of Golden Missie, and exhibited by John E. Smith, was first in the yearling class. This animal was also purchased from John Isaac and is one of the Duthie breeding. Thos. Spears, Oaklake and J. W. Binnie, Castleavery, also made creditable exhibits.

A. Cummings, Lonetree, was the chief exhibitor in Polled Angus, and the principal winner. A very good showing of Herefords was made, indicating that the breed is gaining a strong foothold in the West. J. A. Chapman, Beresford, and J. Wallace, Cartwright, were the chief exhibitors.

In the dairy classes the Holsteins were strong. J. Glennie & Son, Longburn, were the largest exhibitors and winners. Other exhibitors were A. B. Potter, Montgomery, and James Herriot, Souris, the latter winning several prizes. Several Jerseys were shown by W. O. Edwards, Souris. Strange to say, only one Ayrshire was shown. One would expect to see this popular Scotch breed out in larger numbers in the West where so many from "Auld Scotia" have taken up their abode. Mr. James Snell, Clinton, Ont., was judge in cattle. Judging competitions in both the beef and dairy breeds were held, so Eastern breeders will see that their Western kinsmen are right up-to-date.

SHEEP AND SWINE.

If we are to judge from the exhibits in these classes at Brandon our Western friends are not much on mutton and pork. Only a very few animals in each line were shown, and these of only fair quality. Why the Western farmers ignore these branches of animal husbandry is somewhat surprising. Of course, they do not get within two cents per lb. live weight, for hogs, of what the Ontario farmer gets. This may account for the sparse exhibit and the apathy of the Western farmer as to hog raising.

OTHER EXHIBITS.

The exhibits of Agricultural products and the dairy were fairly numerous. Some fine samples of wheat, oats, barley and peas were shown. Even corn had its place, and a sample of fully matured corn was shown that some more southerly countries would

find it hard to beat. However, the Canadian West has not as yet been demonstrated to be a great corn country. But we know not what the future will bring forth.

The poultry display was good, with the utility breeds predominating. That veteran judge, Mr. Sharp Butterfield, of London, scored the birds and pronounced them of very high merit.

Altogether, then, the Brandon people are to be congratulated on gathering together a very good all round agricultural show. And we would advise visitors from the East next year to make an effort to be present. They will see some of the best that our Canadian West can produce, not only of live stock and farm products, but of a genuine hospitable people who love the land of their adoption, and have every hope for the future.

To Destroy Weeds

An Iowa farmer gives the following three methods for eradicating weeds, and which might be practised to very good advantage by many a Canadian farmer:—

"One of the best ways to destroy bad weeds on a farm is to summer fallow one field on a farm at a time and plow the field, carefully turning everything green under in June and again in July, and the first half of September, and at the proper time sow the field with wheat or rye. The next year as soon as the grain will do to harvest and remove from the field, plow the stubble and weeds under very carefully, and in the last half of September plow the field again and scatter all the stable manure on the land that can be had. The next spring plant the field to corn, and by good management that field can be clean of every class of weeds and kept so. Another very good way to help clear a field of weeds is to plow the field in a good manner as soon as the small grain is cut and hauled off the field, which should be done as soon as the grain will do to stack or thresh. Later in the fall plow the field a second time, say, in October, or at such time as to turn under the grass and weeds before any of them go to seed. The next spring put the same field into corn and farm thoroughly, and by such management a farm can be cleaned of weeds and kept very nearly so. A third good way is to sow a field to grass and mow for a few years and finally pasture with stock rather close, providing the owner will mow the weeds at the proper time while pasturing the field and then run the mower over it in June for ragweeds, thistles, and some other weeds, and also mow in July and August so as to cut off such weeds as will be left from the first mowing. Also mow in September to cut the frost or collie weed and iron and horse weeds—in fact, cut each and all weeds just before they begin to seed, running the mower bar high enough to cut the weeds without cutting any more grass than is necessary. By trying to kill weeds as well as most farmers know how, and at the proper time, will rid the farm of most of the noxious weeds. The better way to kill thistles, burdocks

and some of the few of the larger weeds is to take a sharp spade and cut the last named weeds off two inches below the ground just before they blossom and you will be done with such weeds. Morning-glories can be killed by pasturing the grass in the field short and salting the stock on the patch of vines once or twice

each week through the season, or by plowing the field where the vines grow and sowing to millet and cutting the millet off before the vines begin to mature seed, and then take off the hay as soon as possible and plow the ground where the vines grow thoroughly. By so doing you will finally get rid of them."

Studies in Nature

A Review of Insect and Bird Life on the Farm

Edited by C. W. Nash

The editor of this department will be glad to identify for subscribers any specimens of natural history sent to this office for that purpose and will answer any questions on the subject that may be asked through *The Farming World*.

BIRD NOTES.

How quickly the seasons pass. But a few weeks ago we were noting the arrival of our summer birds as they reached us from the South and gradually distributed themselves over their nesting ground. Already many of them have fulfilled the purpose for which they came here, and with their young have abandoned their nesting haunts and are now hiding in secluded woods to pass through the moulting season, or are drifting about the country, remaining for a short time at such places as will afford them an abundance of some favorite food, when that supply is exhausted moving off in search of another favorable spot. Both old and young are possessed of the spirit of unrest, they have no ties to bind them to any particular locality, and food may be had anywhere. The adult males of some species are even now moving southward. The male Humming-birds and Baltimore Orioles being the first to go. The Bob'olinks left the hay fields some time ago and are now to be found in flocks in the low meadows which adjoin the marshes, the black and white plumage of the males has entirely disappeared, the whole family now being similarly clad in sober suits of ochre yellow with brown markings. With the change of dress they have ceased to sing and have assumed such a quiet, unobtrusive manner that few people recognize in the unassuming brown bird of to-day, the gay, rollicking Bob'olink of the June clover fields. In a few days they will have left the Province for the rice fields of the Southern States and thousands of them will be sacrificed to furnish epicures with the greatest delicacy of the season.

BIRDS OF THE ROADSIDE.

Neither of our cuckoos can be said to be expert nest builders; in fact, their nests are a discredit to birds that are so neat and trim themselves; of the two, the black billed forms the neatest cradle for its young; the

best specimen of its skill, however, that I have yet seen was a poor affair and looked something like the nest of a very slovenly robin. The yellow billed is even less artistic in its architecture, its nest being little better than a loose platform of twigs, grass and strips of bark. Both species lay three or four eggs of a bluish green color, the black-billed cuckoo's being rather larger than a robin's, and the yellow bill's a little larger still. After the young leave the nest they are fed for some time by their parents, and when a brood of them are sitting among the branches of a tree waiting for food to be brought to them, they manifest their impatience by uttering the greatest combination of uncouth noises it has ever been my fortune to hear in the woods. The young inherit all the hiding propensities of their race and put them into practice at an early age, so that although you may locate the tree from which the noises proceed with great certainty, yet it will take a long and careful search before you are able to see a young cuckoo.

INSECTS.

Insect life is now at its height, and everywhere you go representatives of some of its various forms will be met with. As is usual, some species generally common are this season very scarce, while other species that in most years are comparatively rare are this summer common. A notable case is that of the potato hawk moth (*protoparce celeus*). I do not remember a season in which this magnificent insect was exactly rare, but I certainly never before saw it as common as it is this year. This moth produces the large green, horn-tailed caterpillar that feeds on tomatoes, potatoes and other allied plants. If abundant these larvae are liable to become injurious. In their early stages Paris green will destroy them, and when they become large they may easily be hand picked off the plants. This insect has so many natural enemies that it is not likely to be a source of annoyance for two years in succession, but owing to its large size and great voracity, market gardeners should be on their guard against it this summer or their tomato plants will be likely to suffer.

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially
Representing the Farmers' Interests

Edited by JAMES FOWLER

Sugar Beetlets.

The value of a sugar beet is in the quality, not quantity.

The soil properly prepared will grow paying quantities of sugar beets.

The farmer is the one most benefited by the establishment of a sugar factory.

The sugar beets are the finest table beets. Why do the farmers not grow them for that purpose.

Beets stand the dry weather nicely, and the crop can be depended upon when nearly all other crops fail.

The sugar beet is not a tender plant, and will not be injured by spring frosts that would kill corn.

The sugar beet takes most of its sugar qualities from the air. Plenty of sun is required in the ripening stages.

The sugar beet is a cash crop, and the introduction of a new cash crop to diversify the old system, is full of promise to the farmer and the business public.

Experience in sections where the industry has flourished has demonstrated that it is more economical to sow the seed thick at the start and remove all the surplus beets at the time of thinning.

Beets grown from seeds which have not been carefully selected will be low in sugar content. Sow no seed not obtained from reputable dealers. To secure a profitable yield of sugar it is necessary to use selected seed.

The farmer who knows how and knowing, carries his farm work on systematically, will succeed and prosper where his neighbor farmer, possessed of equal industry, but lack of knowledge and pursuing haphazard methods, will fail to make farming pay. This is especially the case in sugar beet culture. It may be said to the credit of farmers that as a class they are anxious to learn and to profit by the experience of others, and by and by they come to the conclusion that beet culture is a good thing, as the beets will find always a ready market for an agreed price. At the same time it will improve the fertility and productivity of the farm and consequently its value.

Crop Reports.

The late rains have benefited the beet crop, and the farmers growing beets for shipment to Michigan are very hopeful that it will be the best paying crop raised this year, notwithstanding that they are only getting \$3.00 per ton for them. With a home market at \$4.00 per ton the Canadian farmer would find that he

has only to grow beets a few years to become independent.

Ontario Did It.

One of our American exchanges contains the following:

"Not many years ago lumbering was one of Michigan's chief industries. So vast were these lumber operations that in a comparatively few years, the log supply was exhausted and Canada's prohibitive export duty on logs did the rest. How to supply work for the people formerly engaged in the lumber business and a market for the farmers' produce became in a very short time a most perplexing question.

"The sugar beet arrived in time to solve the problem. Nature gave to Michigan a soil and climate adapted to the production of this crop. Mr. Saylor calls special attention to the fact that after the sugar is extracted the pulp retains all the plant food furnished by the earth and is practically as nourishing and fattening to dairy or stock cattle as before the factories have obtained what they want. The side products of the factories, other than pulp, are to be chemically prepared commodities, as pointed out in connection with the big plant for that purpose that is being built and equipped at Bay City. It will be years before the enormous domestic consumption of sugar can be met by the sorghum and beet sugar producers, but this is only the better guarantee of sure sales and profits."

What the Sugar Trust Thinks.

President Havenmeyer of the sugar trust has opinions of his own on the conquering march of American grown beet sugar. Before the United States Industrial Commission not so very long ago, in reply to a question as to whether or not in his opinion the beet sugar industry will eventually supply all the sugar consumed in the United States, he made answer as follows:

If the people in the United States continue to consent to a burden of \$40 on imported sugars, I suppose that one of these days the beet sugar industry will furnish the United States with all it consumes—provided, of course, that Cuba, Porto Rico and the Philippines are not annexed, or their products are imported free.

In other words, if the Dingley tariff tax on foreign sugars is continued and products from the Philippines, Porto Rico and Cuba are to be regarded as "foreign," importations of sugars will gradually decline until finally they cease altogether, and the sugar supply of this country will come chiefly from beets, even the cane of Louisiana and Hawaii gradually disappearing.

This view, coming from such an authority is highly significant. Equally significant is the report that Havenmeyer is increasing his sugar beet holdings just east of the Rockies.

Beet sugar has come to stay in Canada also, and there is no reason why Ontario cannot produce enough beets of the proper quality and manufacture all the sugar used in the Dominion.

Grow Beets.

Prof. McKerrich, of the University of Illinois, in a recent address, says:

"The rapid development of the beet sugar industry in America has opened another large and promising field of endeavor for young men. This industry is now but a giant in its swaddling clothes. No need of going West now, to grow up with the country. But rather, learn the arts of cultivating high grade sugar beets and grow up with this rapidly developing and prosperous industry."

Wallaceburg.

The contract for the building of a beet sugar factory at Wallaceburg has been awarded to the Kilby Mfg. Co., of Cleveland, Ohio, and the work will proceed immediately. The main building or factory proper will be 244 feet long, 4 stories high, with steel roof. The remainder of the building will be of brick, stone and cement with steel structure, making it absolutely fire proof. The storage building for sugar will connect with the main building, and is to be 200 feet long, 2 stories. There will be ten beet sheds each 400 feet long, and a complete electric lighting plant will be installed. The entire plant will be of the most modern type, embracing all the special features of the business known up-to-date, and will be a model for other factories which are in contemplation.

The promoters and shareholders deserve great credit for the business-like way in which they have taken hold of the enterprise. It is sure to be successful.

The Sugar Beet Fields Surrounding Lansing

Few persons who have not investigated the tremendous industry that the establishment of a sugar-beet factory in this city brings to our doors, have an adequate idea of what it means to the city and country.

An early drive on Wednesday among the sugar-beet fields gave us a glimpse of the great industry, its ramifications and possibilities.

North and south, east and west, and all intermediate points around the city, could be seen hundreds of persons, men, women and children, differing in ages from 16 years to three

score and ten, weeding, thinning and hoeing beets. This means hundreds of dollars every day, thousands of dollars every week coming into the homes of the city; this means an exchange of these dollars with those who sell groceries, clothing, books, this means more boys and girls in our schools, attending our colleges and universities. From the sugar-beet fields many boys and girls see the door open to the college and the university. We were talking with one boy who has long desired to attend the Michigan Agricultural College but could not get the money necessary to purchase clothing and other essentials. "I shall enter the college this fall," said the boy.

Seven thousand acres of land are required to feed the Lansing sugar-beet factory. The cultivation of the beet requires hundreds of helpers to weed, thin, hoe, pull, top, prepare the soil, drill in the seed, haul the crop to the factory, change the beets to sugar. This industry is not a temporary affair, but a business that has come to stay, and means a steady stream of money, alternating between the city and country, it means better roads leading from the country to the factory, for the problem of transportation of the sugar beet crop is a costly one, and will need good roads to reduce it to the minimum; it means a better preparation of the soil for the crop, since sugar-beet culture, to be successful, means the very best cultivation of the soil, it means diversification of agricultural productions, and a husbanding of the resources of the soil. The delivering of the crop to the factory will commence about October 1.

The Beet Sugar Factory

A modern beet sugar factory exhibits in the general construction the triumphs of mechanical skill and ingenuity, at the same time that its methods of actual sugar making are the result of careful chemical investigation and are controlled at almost every stage of chemical analysis. Every detail of construction and arrangement is planned to serve its particular end.

The best storage is provided in sheds, into which the beets are discharged from wagons or unloaded from the cars. Each of these sheds has the bottom sloping to the middle beneath which is the flume; in it the beets are carried by flowing water to the factory proper, and out of it they are lifted by a wheel and delivered to the washer. After washing, the beets are automatically thrown within reach of the carrier, by means of which they are taken to the top of the building and delivered to the weighing machine; this machine discharges at a definite weight, about 600 pounds, meanwhile recording the number of loads, and the beets drop into the hopper of the slicing machine. The curved knives of the slicer cut the beets into pencil-like strips, or cosettes, as they are called, which are in turn delivered to the open diffusion cell or chamber of the diffusion battery below, through the long, sloping spout. About two and

one-half tons of cosettes are required to each cell of the diffusion battery; after filling, the newly filled chamber is placed last in the line of flow of the hot water passing through these chambers to extract the sugar, or other substances dissolved in the beet juices. Herein is the essential difference between diffusion and direct extraction of saccharine matter by grinding or crushing and subsequent pressure. The slicing into cosettes is the preparation of the beet for extraction of its juices by the diffusion process. All are more or less familiar with the primitive crushing and juice extraction practiced with sorghum, with apples and with other fruits as exemplifying the old process of juice extraction.

The sugar juices from the diffusion cells, will be diluted more or less according to the volume of water used in their extraction; manifestly there is a limit in the extraction of the sugar from the cosettes, now become the pulp, beyond which profitable extraction cannot be secured because of the dilution of the diffusion juice.

Broadly speaking, about one-half of one per cent of sugar remains in the pulp for the reasons stated, a more complete extraction would involve greater dilution and mean more water to evaporate in the process of sugar separation. The technical control of such processes involves many factors that will scarcely occur to the non-technical reader, or visitor at a beet sugar factory.

The juice, or liquor from the diffusion battery, is passed through the sulphuring tanks where bleaching is to be secured by the fumes of burning sulphur, then the same liquor is passed to a tank for first carbonation. This process consists in the addition of lime in excess to precipitate es-

pecially the albuminoid substances in the juice and subsequently in passing gaseous carbon dioxide (saved in the process of burning the lime required) through this limed juice to precipitate any excess of lime and reduce, or neutralize the alkaline reaction. From the first carbonation the liquor is passed through the filter presses to remove all precipitated material, such as lime, albuminoid substances, and the like. From the filter presses come the lime cake of the factory. From the first set of filter presses the liquor passes through a second course of liming and carbonation, the "second carbonation" and again through a succeeding set of filter presses.

After the second carbonation, the somewhat changed juice or liquor is ready for the evaporating tanks, or vacuum tanks as they are usually called, where, in a series of four tanks the liquor is evaporated, under reduced air pressure, to a "thick liquor" containing about fifty per cent. sugar. The vacuum tanks are interesting as illustrating the effect of the atmospheric pressure upon the boiling point of a liquid. These tanks are closed chambers, connected with each other and capable of containing a large volume of liquor. Through the tanks and liquor are a series of copper pipes. Through pipes of the first tank live steam is passed while the vapor from the evaporation going on in the first tank passes through the copper pipes of the second, and so far each one successively. The air is exhausted from the upper space of each chamber by trickling water and pump, so that a nearly uniform pressure is maintained for each, though different for the several tanks. This means about as follows:

Experiments With Sugar Beets.

The Dominion Government reports of the Central Experimental Farm at Ottawa contains the following in regard to sugar beets:

Six varieties of sugar beets were tested in 1900. They were sown side by side on land adjoining that used for the trial plots of turnips, mangels and carrots, the soil was similar and the treatment and pre-

paration of the land and the method of sowing were the same. Two sowings were made, the first on May 16, the second on May 30. They were also pulled at two different dates; the first pulling was in October 16, the second on November 6. The yield per acre has been calculated from the weight of roots gathered from one row 66 feet long.

SUGAR BEETS--TEST OF VARIETIES.

NAME OF VARIETY.	Yield per Acre from 1st Sowing, 1st Pulling October 16.		Yield per Acre from 2nd Sowing, 1st Pulling October 16.		Yield per Acre from 1st Sowing, 2nd Pulling November 6.		Yield per Acre from 2nd Sowing, 2nd Pulling November 6.	
	Tons	Lbs.	Tons	Lbs.	Tons	Lbs.	Tons	Lbs.
1 Danish Improved	42	810	28	430	35	1,280	35	1,940
2 Wanzeleben	40	355	31	1,030	40	520	35	455
3 Improved Imperial	38	1,335	25	430	32	1,340	33	330
4 Red Top Sugar	37	580	26	1,130	36	1,260	31	700
5 Danish Red Top	34	805	31	1,030	35	620	39	1,200
6 Vilmorin's Improved	27	615	22	220	27	1,110	25	1,150
Average of 1st sowing, 1st pulling	.....		.....		.....		.....
" " 2nd " 1st "	.....		.....		.....		.....
" " 1st " 2nd "	.....		.....		.....		.....
" " 2nd " 2nd "	.....		.....		.....		.....
					Tons.		Lbs.	
					.....		36 1,417	
					.....		27 1,055	
					.....		34 1,355	
					.....		33 963	

The increase in crop from the early sowing of sugar beets was very marked this year, the gain amounting to 9 tons 362 pounds per acre. There was a slight decrease in the crop in

the second pulling of the early sown plots, but on those later sown the increase was 5 tons 1,908 pounds per acre.

The "thick liquor" from the vacuum tanks, containing, as is stated above, about 50 per cent. of sugar, is drawn off from the fourth tank, filtered through bag filters, sulphured again and then passed into "the vacuum strike pan" on the next level above. In this, evaporation proceeds under even better vacuum, until the desired consistency is reached for subsequent crystallization of the sugar. From the strike pan the thick, pasty mass is discharged into the graining pan, where it is continually stirred to induce proper crystallization; thence it is drawn to the centrifugals, which are chambers, or hollow cylindrical bodies with the outer margin of the hopper of perforated brass, revolving at a very high speed and surrounded by a fixed external jacket. The molasses is thus thrown out of the mass and caught by the external jacket; the crystallized sugar remains behind, is washed to free from adhering molasses and is then ready for drying in a heated dryer, and subsequent pulverizing of any lumps. As the finished sugar drops into the barrels, it is yet warm and almost entirely free from moisture, polarizing between 99.5 and 100 per cent. of sugar, in fact any slight deviation from 100 per cent. in polarization is usually to be attributed to imperfections in drying or to subsequent slight absorption of moisture.

There are further vacuum pans found here for the handling of molasses; and there are special processes, such as Steffen's, Osmose and some others, that have not been introduced into the Fremont works. The largest loss in beet sugar manufacture is undoubtedly in the final molasses, which in our country is not utilized, and is in fact, difficult to utilize even with pulp for stock feeding, as is reported to be the practice in Germany. The beet pulp too is not as yet utilized, though promising to be valuable in cattle feeding; it is dropped into a large silo outside the factory.

So much by way of explanation of the factory processes. Lime kilns, seed houses, cooper shops, boiler sheds and other features of a sugar factory do not differ essentially from similar features of any other industrial enterprise.—Ohio Exp. Station Bulletin.

The Use of Limestone in Sugar Factories.

A sugar factory is a large consumer of lime-stone. This stone is burned in the factory in a specially arranged kiln. In the process of burning, carbonic acid gas is driven off, and the object of burning the lime in the factory, instead of buying the prepared lime, is for the purpose of securing this carbonic acid gas, which is used in the process of manufacturing the beet sugar, as well as the lime. The burned lime is put into the juice, either in the powdered state or as milk of lime, as the first process after the juice has been sufficiently warmed. The object of this is to have the lime unite with the impurities in the juice both chemically and mechanically, and then by the carbonic acid gas, by bubbling it through the limed juice, a union of calcium and the carbonic acid gas is effected. This combination forms calcium carbonate, the substance originally started within the limestone before burning. In this process the crude stone is separated into its elements and after performing its functions is united again, and holds in its grasp the impurities that were in the beets. It is then removed from the juice by forcing the juice under very high pressure, through very fine cloth filters. This lime-stone must be very pure and is a necessary condition of a sugar factory.

Two Views of Sugar Beets.

One of our exchanges publishes the following editorial:

"Seldom has a brand new industry been brought so rapidly to public notice in Canada as has the sugar beet industry during the past few months. As it should have in an enlightened country the proposition to the cultivation and manufacture of sugar beets by government aid, has its critics pro and con. Some of the arguments on one side are no better than some of those on the other.

For example the Bowmanville Statesman makes the hogs devour the sugar beets in this way:

A farmer could grow sugar beets and deliver a ton a day to a sugar beet factory here if we had one (Whitby is very anxious to have one) and he would drive home with \$4.50 in his pocket. The same farmer with the same wagon could deliver a ton of live

hogs in the same time and return home with \$100 bulging out of his pockets, if the hogs brought only \$5 per cwt. See? The sugar beets all must be delivered within two months say when the farmer could deliver hogs every month in the year. The farmer twenty miles distant could easily deliver his hogs here, but the beet raiser that distance off would find a day's work for a man and a team too costly for delivering beets at \$4.50 a ton. Then about the exhaustive nature of beet raising on land? Would not constant cropping in of beets impoverish the soil in those constituents that make the vegetable. Heavy manuring and much labour is imperative to produce good crops. But how is it with hog raising? The land would be fertilized. Coarse grains would be fed on the farm and would be returned to the soil. The labour is scarcely noticeable. O, ye farmers, everything is in favour of the hog."

That is certainly a hog argument. It chiefly proves that \$100 worth of hogs can be put into a smaller box than \$100 of sugar beets. It no more proves that a farmer should raise hogs instead of sugar beets than that he should raise humming-birds instead of Barred Plymouth Rocks. The space things take up in a wagon box is not a very superior guide to their value. What it costs to raise and market \$100 worth of sugar beets and hogs to the same value and which leaves the bigger net surplus are points that do not seem to have occurred to the Statesman expert, but with a glance into the wagon box he exclaims: "O, ye farmers, everything is in favor of the hog." It evidently is around the Statesman office. If newspapers are to be of such assistance to farmers on this question they must discuss it in a more rational way than the Statesman has adopted."

I should think you would be afraid to eat onions in the middle of the day," said the blonde typewriter to the brunette when they met at dinner.

"I'm not a bit," replied the dark one; "you see, our office is on the thirty-sixth floor, and when I go up in that elevator it takes my breath away."—Yonkers Statesman.

"Some folks," said Uncle Eben, "seems to think dey is havin' an argument, when 'tain' nuffin' but a hol-lerin' match."—Washington Star.

E. H. DYER & CO.
Builders of

SUGAR MACHINERY

Cleveland, Ohio

Will contract to build complete beet sugar plants, including all machinery and buildings; also furnish the necessary technical and skilled help to operate them.

The Kilby Manufacturing Co.

Founders and Machinists

Corner Lake and
Kirtland Streets,

CLEVELAND, OHIO

New York Office:
220 Broadway.

Builders of Complete Machinery for Beet, Cane and Glucose
Sugar Houses and Refineries.

The Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep and Swine Breeders' Association, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees:—Cattle Breeders', \$1; Sheep Breeders', \$1; Swine Breeders', \$1.

BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to advertise stock corresponding to the Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals, should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

A. F. WESTERVELT, Secretary.
Parliament Buildings, Toronto, Ont.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. F. Westervelt, Secretary, Live Stock Associations, in the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular department of farm work in which a position is desired, wages expected and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. If on a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that suitable work, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

Help Wanted.

A first class butter maker wanted to manage a large private dairy. References required. No. 811.

N.B.—Where no name is mentioned in the advertisement, apply to A. F. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.

Farmers' Institutes.

Under this head the Superintendent of Farmers' Institutes will each week publish matter relating to Institute work. This will include instruction to secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institution that has carried on the work.

G. C. CREELMAN,
Superintendent Farmers' Institutes.

Women's Institute Notes

By the Superintendent.

Six months ago only three Women's Institutes existed in this Province, with a total membership not exceeding one hundred. At the close of the

half year, ending June 30th, thirty-three Institutes had been organized, and were holding monthly meetings, with a total paid up membership of 1,369. The latest addition to the number is South Simcoe, which was organized under favorable auspices by Miss Maddock on June 3rd, with Miss Christina Sutherland, Cookstown, as Secretary-Treasurer.

WEST BRUCE.

Mrs. J. S. McTavish, in her president's address at the annual meeting of the West Bruce Women's Institute, said—

"As a new Institute, starting with a very small organization, I think we may congratulate ourselves on the success we have achieved. Seven members were on the roll at our first meeting six months ago, and today we have fifty-four. Those who have attended the meetings have received much benefit, directly from the information received, and indirectly from a social point of view. Solomon said, 'As iron sharpeneth iron, so a man sharpeneth the countenance of his friend,' and this is equally true of women, as we have proven in our meetings together. We have been much benefited by the literature sent out by the Department of Agriculture. We have also during the year purchased a few books, which are the nucleus of a library to which we hope to add from time to time as our funds will permit. Among the books purchased are, 'The Vegetable Garden,' 'Flowers, and How to Grow Them,' 'Food and its Functions,' 'Primer of Hygiene,' 'Early Training of Children,' 'Dust and its Dangers,' and 'Diet in Sickness and Health.'"

NORTH GRAY.

In North Grey the officers of the Women's Institute are most business-like in their methods. Being convinced that the municipal council should assist them in their efforts to improve the social conditions of the women of their farms, they approached the county fathers without fear or

trembling, and, as the following clipping from an Owen Sound paper will show, accomplished their object:—

"Mrs. Wm. Gardner, of Kemble, President of the North Grey Women's Farmers' Institute, accompanied by Mrs. Beckett, also from Kemble, were present in the interests of their Association, and presented the objects of their Society in a well thought out and pleasingly presented address by Mrs. Gardner. So much time had been taken up by the Owen Sound deputations that in order to catch the train for home the ladies had rather a poor opportunity of presenting their case. However, the address was convincing as to the utility of such organizations, and the council readily voted them a grant of \$10 to aid the work. This grant brings a similar amount from the Ontario Government. The Women's Farmers' Institute has no reason to be ashamed of the representatives who appeared before the county council."

SOUTH ONTARIO.

The Institute of South Ontario held their July meeting at the home of Mrs. J. L. Smith, Whitby. Mrs. Smith is one of the mothers of the Institute movement in Ontario, and being the wife of a successful farmer, her practical experience has been very helpful to many a new Institute. As would have been expected she proved a charming hostess, and cordially welcomed the hundred ladies who arrived from all parts of the county.

A pleasing feature of the meeting was an address and presentation to the retiring secretary, Mrs. Wm. Anderson, who was obliged to resign her position on account of ill health.

WEST DURHAM.

Miss E. E. Haycraft, Bowmanville, secretary of the West Durham Women's Institute, in her annual report says—

"Since organization last October, eight meetings have been held. Good programmes, consisting of addresses and papers on useful subjects, have been given, interspersed with musical selections. A union meeting in connection with the Farmers' Institute was held in Mr. Jonathan Stephen's grove, north of Bowmanville, on June 22nd. No meetings are to be held during the summer months, but arrangements have been made for a large meeting in October."

EAST HASTINGS.

The East Hastings Women's Institute held an out-door annual meeting at Plainfield last month. Miss Blanche Maddock, of Guelph, was present and delivered an address on "Bacteria, as they affect the Home, the Soil and the Dairy." Sixty ladies were in attendance.

WEST HURON.

Mrs. Colin Campbell and her co-

workers in West Huron have held meetings during the past year at Goderich, Blyth, Holmesville, Kintail, St. Helens and Wingham. These meetings were attended by 1,655 persons, while twenty-six papers on women's work were read and discussed.

NORTH ONTARIO.

Mrs. C. S. Goodrich, secretary North Ontario Women's Institute, reports that their meetings are being well attended, and that they have a paid membership of 53. The efforts of the officers and directors are being appreciated.

PEEL.

In Peel the ladies are making arrangements to hold meetings during the coming winter at Cheltenham, Streetsville, Bolton and Brampton.

SOUTH WESTWORTH.

The receipts for South Westworth Institute last year were \$63.63. With this amount they have been enabled to hold a great many meetings and supply good literature to their members. A branch of this Institute has been formed at Carlisle.

The Annual Meeting of the West Bruce Women's Institute.

The meeting was called to order at 1.30 p. m., and after a few preliminary remarks by the President, Mrs. McTavish, she introduced to the audience Miss Laura Rose, of Guelph, who gave a very instructive address on "Difficulties in the Dairy, and How to Overcome Them." There was a very good attendance at this meeting, upwards of two hundred, and much interest was taken, both in answering and asking questions.

After the address, the business meeting was called. When the President, Secretary and Auditors read their reports. The old Board of Directors, and also the other officers were re-elected.

At 5 o'clock, after the business session, luncheon was served, and over one hundred sat down to a bountiful repast, which all seemed to enjoy. Each married lady had the privilege of inviting her husband and a friend, while the single members had also the privilege of inviting two. The luncheon was provided by the members only, and the gentlemen present, were, of course, unanimous in their opinion that the Women's Institute was a success.

The evening meeting was called at 8 o'clock, but owing to showery weather, a number had to go home. However, there was a very good attendance—about two hundred and fifty. Miss Rose gave two addresses, one on "Butter," and the other on "Bread Making," which were both very instructive and much appreciated by the audience.

Dr. Annie Clelland, of Victoria, a member of the National Council of Women, gave a paper, "The Prevention of Tuberculosis in children."

Between the addresses, Mrs. Nicholson and Mr. Wismer sang a duet, entitled, "The Invisible Land." Miss

Rose gave a recitation, and the meeting closed by the audience singing "God Save the King." Altogether a very enjoyable time was spent, and during the afternoon quite a number of new members were enrolled, and we hope, if spared, to be able to make our organization even more successful than it has been in the past.

Mrs. J. H. Wismer, Secy.

ANNUAL REPORT

To the Officers and Members of the West Bruce Women's Institute:

In presenting to you this first annual report I have the honor of calling your attention to a review of the principal transactions of our Society during the past seven months of its existence.

While there are those before me who have attended every meeting since organization, the majority of those present have not been able to do so, and many have joined us quite recently, so for the benefit of these, I shall describe in detail, more than I otherwise would.

The first meeting for the purpose of organizing was held in the Council Chamber, Port Elgin, on November 17th, 1900, at which nine ladies were in attendance, and the following officers were elected: Mrs. McTavish, president; Mrs. P. Cummings, vice-president, and Mrs. Wismer, secretary.

The second meeting, December 1st, was very poorly attended, only five being present, and on this discouraging account, with the exception of the election of Mrs. McEwing to the office of treasurer, little or no business was transacted.

The third meeting, January 12th, was attended by fourteen ladies, a sufficient number from which to elect a Board of Directors, and the following were appointed: Mrs. C. Nicholson, Mrs. John George, Miss M. Elliott, Mrs. George Simpson, and Mrs. W. Gowanlock.

At this meeting the president read an interesting address, entitled, "The Aims and Objects of Women's Institutes." Eight new members were enrolled, and after adjournment fifteen additional names were secured.

The principal features of the fourth meeting held on February 9th, were three addresses by Mrs. John George, Mrs. C. Nicholson and Miss M. Elliott, and the framing of a letter of condolence to our vice-president, Mrs. Cummings. Attendance, eight.

The attendance on March 9th numbered 17. The time was occupied by readings given by Mrs. McTavish and Mrs. Nicholson, and the selection of books for a small library.

"Work, Worry and Monotony," by Mrs. Munroe, and a humorous but practical article, "Food for Bees," by Mrs. McTavish, were the subjects under discussion on April 13th. Attendance, 13.

At the meeting of May 11th, the last of the Institute year, there was an attendance of 16. An address was given by Miss Elliott, and readings by the president and Mrs. Nicholson. Mrs. Campbell and Miss Elliott were appointed Auditors.

In addition to the above meetings, mention should be made of an informal session held on February 14th, for the purpose of meeting Miss Maddock,

and receiving her suggestions as to the best way of promoting the interests of our Institute and carry it on in a business way.

A Branch Institute has been organized at Underwood, and is under the directorship of Miss McLean. The president and Mrs. Nicholson (a director), have attended several of their meetings, but, owing to ill health, I have not yet been able to meet with them.

At present date we have a paid-up membership of 51, including the Underwood Branch, but exclusive of those who have joined us since my books were audited.

We have held seven regular meetings and eleven is the total number of papers read and addresses given. My Financial Statement shows

receipts from members, \$12.75
Grant from Farmers' Institute 10.00

Total Receipts \$22.75
Our total expenditures have been \$9.35, leaving a balance in the treasury of \$13.40.

Mrs. Wismer, Secretary.
Port Elgin, June 7th, 1901.

Some Impressions Received During a Short Trip to the Province of New Brunswick.

By T. G. Raynor, Rosehall.

The Department of Agriculture of this Province decided to re-organize the different existing Agricultural Societies, and to change them into Farmers' Institutes, that they might become more efficient and do some educational work, besides what they were already doing, namely, purchasing pure bred sires and holding fairs.

I arrived in Fredericton on the 25th of June, and that evening met the organizers in the office of Mr. Thos. A. Peters, Deputy Commissioner of Agriculture. The working of the Institute system as we have it in Ontario, was then explained, and some beneficial results of the work were emphasized.

Commencing on the 26th inst., I was to go alternately with all three organizers, viz: W. W. Hubbard, of the "Co-Operative Farmer," W. J. Tompkins, and Mr. Alward, Parliamentary Librarian. All three are efficient men. Mr. Peters was also to organize a few. In this way I saw a good deal of the Province, and noted a few things as I met the farmers of the different districts. I spoke at a number of the public gatherings, and, judging from the interest taken, they are ripe for organization.

THE MAIN CROPS.

The main crops of New Brunswick are hay and oats. Potatoes and buckwheat are also grown extensively. This year, along the St. John Valley, and in the southern and south-eastern part of the Province, the may crop is excellent. Up the north shore, including all north-eastern New Brunswick, the season has been a very dry one. Only here and there are there really good crops. In the most favored places, or where good farming is

carried on, the crops look very well, under such adverse conditions.

BAD EFFECTS OF INDISCRIMINATE CROSS-BREEDING.

The Government has been aiding the farmers through the Agricultural Societies, in purchasing pure bred males. This has been done before any general knowledge of the breed characteristics were known by the masses, and it has resulted, as it has elsewhere, in mixing up the breeds of cattle and sheep to such an extent that the attempted improvement is worse than the original in many cases. The French settlements are the farthest behind in methods and improved stock, of any I visited. A most hopeful sign of the times, however, was their evident eagerness to get information. They even came out by the fifties and hundreds to the organization meetings. Most of them can understand a little English.

DAIRYING.

Prof. Robertson has done some good work in encouraging co-operative dairying in the Province. The Province is divided into three districts and presided over by as many inspectors, who are looking after their work well.

SHEEP.

There is no reason why sheep should not do well. In fact, where there are any kept they are looking well. It is claimed that the dogs down East are a great menace, as well as in the West. Away with the dogs then! and let us keep more sheep.

PORK IMPORTED.

From western New Brunswick some hogs are shipped to Montreal. However, there are more hogs brought to New Brunswick, slaughtered and consumed there than the Province produces.

REMOVING FENCES.

In Carleton County, about the town of Woodstock, they are removing their road fences very largely, and working the land right up to the road bed. It looks very nice and clean, and where the road is properly graded, it is a decided improvement. They are paying considerable attention to their country roads, and all over the road machine is in evidence, more or less.

IN THE TRANSITION STAGE.

In many parts of New Brunswick farming is in a sort of transition condition. Considerable lumbering is still going on, and many farmers with their teams find steady work at the lumber camps during the winter season. This has rather spoiled them for work on their farms in summer. Many, however, are finding it necessary to pay more attention to their farms, and Institutes will help them to avoid making a number of mistakes.

NOT ENOUGH FRUIT.

Fruit is not cultivated to the extent it might be, and they have considerable to learn along that line.

On the whole I was favorably impressed with the agricultural possibilities of New Brunswick, and believe there is a bright future before her.

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President's Address.

To the Ladies of East Durham Woman's Institute:

After a few discouragements and difficulties experienced in getting started we are now a fully equipped Woman's Institute.

Now, we have not taken the trouble to make a beginning without some definite purpose. The rules and regulations for Woman's Institutes give as their purpose or object, the dissemination of knowledge relating to domestic economy, including household architecture, with special attention to home sanitation, a better understanding of the economic and hygienic value of foods, clothing and fuels and a more scientific care and training of children with a view to raising the general standard of the health and morals of our people.

Now, I do not suppose there is anything covered by these definitions of our object, but to some one of our sixty or more members has given some thought and, as our object is the development of home talent, cannot we mutually benefit each other by giving our ideas and personal observations on the various sides of these questions.

For instance, the first object named, the dissemination of knowledge regarding household economy. Only those whose position in life has brought them in contact with the question can realize how many phases this subject has, and if our association but serves to lighten some of the burdens of everyday life our Institute will not be without fulfilling its object.

Regarding architecture, I believe much more attention is being given by those intending to build, regarding healthful ventilation and sanitary surroundings than ever before, and without at all approaching the grounds of the New Woman, we think it quite within the sphere of the feminine portion of the household to think, talk and plan wisely for a new house, or what is often more within our reach, the remodeling of the homes which, perhaps, our grandparents have left us, so as to be more in keeping with the modern ideas of healthful surroundings.

Then in relation to the object stated, the better understanding of economic and hygienic value of foods, I think such a subject is welcomed by very many. I believe a great num-

ber of our ladies already take great pleasure in preparing suitable food for our tables and we hope this subject will receive the attention of more than one topic or paper to interest and profit our members during the year. Then there is the question of clothing, including talks on how to dress becomingly and suitably, also the use of fuels for cooking purposes and in cold weather for the comfort of those in the home.

The last named object is the scientific care and training of children.

Now, we think the mother connected with our society could find this a very wide field, and we fear too little attention is being paid it, or there would not be so many examples of home training or lack of it, which remind us of Mrs. Stowe's "Topsy," who "jest grewed."

Then there are many other interesting subjects which have been taken by our Institutes named in the reports sent to us, as character, manners, drinking water, possibilities, cheerfulness, our beautiful home, food and its adulteration, pure air, bulb culture, influence, the love of mother, mothers and daughters, habits, food value in the whole wheat, the baneful cigarette and many others may be chosen from time to time.

We have sixty-three members, and I hope the officers will be elected to represent different portions of our district, and that they will at once begin work by arranging with every member to do something to make our society effective.

Let the officers find what each one is in a position to do and forward such information to Mrs. Mulligan, our secretary.

It may be in place to give some explanation at this our first annual meeting, as regards the meetings to be held. There are four meetings required during the year, besides this annual meeting which should be held between the 1st and 20th of June each year.

The Institute year shall begin June 1st and end May 31st. We are required to hold two in December, called the regular meetings, when we will be furnished with a free delegate sent by the department to address our meetings. The other two meetings are held in January, and are called supplementary meetings, when, if we require a delegate, we must pay their expenses.

Ada E. Richardson, President.

The Farm Home

The Fading Years.

On the sunny side of forty, when my
bones were full of sap,
I didn't care so very much about my
morning nap;
At five o'clock the whole year round,
I'd never fail to rouse,
And Mary'd cook the breakfast while
I'd go and milk the cows.

But many a thing has changed since
then, and somehow this old chap
Has changed the most of all, I guess
and now my morning nap,
Is the best thing that I get all day:
I do not care a red
To hear the birds or beat the sun in
getting out of bed

There are no birds nor rising sun in
all the earthly zones
Can drive away my rheumatiz and
lumber up my bones,
Like living still o' mornings, in a gen-
tle sort of drowse,
While Mary cooks the breakfast and
the hired man milks the cows.

A Fairy Tale for Grown People.

Once upon a time a group of fairies
were gathered about the most
wonderful object they had ever seen.

"Is it alive?" said one. "Yes, for
it is warm; and note the soft regul-
ar rise and fall of its bosom. It
breathes as mortals do here." "Let
us take it to fairyland with us,"
cried another. "No, it is too heavy
for us to lift, and so delicate we
should injure it." "Then let us
make another flower like this (for it
is most like a flower)."

With one accord the fairies began
the delightful new task, talking as
they hurried to and fro

What a quest for beautiful material!
"Of what shall be its skin?"
"White rose leaves,—it is just such
a warm, soft white."

But the leaves were of too yellow a
tint, of too coarse a texture. White
velvet, white satin, the lining of the
milkweed pods, were all brought in
vain. The white clouds of a sum-
mer afternoon, and the rosy-white
sky at dawn were too cold and too
bright. One fairy held the warm,
curling, dimpled hand of the wonder,
and shrieked with delight to find
she had exactly matched its lining
with a wild rose petal, the very same
shade of pink. Another held one
soft velvet foot beside the lining of
a fluted shell, and found the color of
the sole of the wee foot exactly like
the inside of the convoluted shell.
How she shouted in triumph!

At the sound of fairy laughter,
like faint chiming of silver bells, two
warm white eyelids slowly lifted, re-
vealing orbs of liquid blue. O, wonder
of delight! "How can we match
that?" said one fairy. "It is most
like the melting of late snow from
early blue violets." But snow was
too cold and too heavy for those eye-
lids, violets too pale a blue or too
purple for those eyes.

Two blue fringed gentians half un-
twisted, were found just the shade of
those pure-blue orbs; but how ever to
match the long eyelashes, or the
rounded cheek with its deep dimple,
or the curving lips!

The hair was almost the color of
the golden corn silk which one fairy
had brought; but the down of the
milkweed was not more fine.

All the fairies were in despair be-
fore this matchless loveliness. Again
the eyes opened, the rosy lips parted,
and a strange musical sound was
heard, softer and more joyous than
the cooing of any dove, happier than
the sighing of winds, sweeter than
any sound outside of heaven. "Let
us give up," said the wisest fairy;
"such a sound! we could never equal
that. Let us ask the wise ones on
earth." So the fairies trooped
away. They went first to the great
and good men who ruled the affairs
of the nations. "Tell us," they
cried, "how can such wonderful ob-
jects as that we have found, all pil-
lowed on down and wrapped in robes
of doves' breasts and cobweb lace be
produced?"

Then the wise men beheld where the
baby lay, amid a confusion of flow-
ers, clouds, wavelets, rainbows, sea
shells, costly fabrics, ivory, gems
and gold, which the fairies had aban-
doned.

"O! foolish fairies," said they.
"This is a human infant, born under
favorable conditions." "Condi-
tions," said the fairies, "what are
conditions?"

Then the most learned of the wise
men told the fairies that the union
of opposite temperaments with the
absence of consanguinity in the par-
ents, together with a careful observa-
nce of the laws of health by the
mother (affording her fresh air,
gentle exercise, proper diet, and a
serene state of mind), had resulted
in this consummate flower of hu-
manity.

"O!" said the fairies in concert,
and the wise man took off his gold
glasses and beamed upon them, as
they stood in a circle about him.
"But," said the wisest of the fairies,
who had understood nothing, "it
seems to live; it is warm; has a flut-
tering in the soft throat; and that
sound! not a laugh nor a song, but
softer and sweeter than either. Sure-
ly, it is an echo lost from heaven."
"O, yes," said the wise man, "the
divine spark, life, that is given by
the Creator, the loving Father,
God."

At that name all the fairies hid
their faces, and the truly-wise man
humbly bowed his silvered head.
Then the fairies hastened away to a
sacred temple, where mother hearts
were gathered in council. Here they
made the same inquiries. How sun-
ny was the foremost mother's smile!
"Bless the little fairy people," said
she. "I have not seen them since I
was a little girl. So you want to
make such a wonder? O, no," here
her voice sank tenderly. "It is the

gift of God." "Strange," murmured
the wisest fairy, "she begins where
the great men left off."

The gentle mother voice went on:
"First of all there must be love.
Then the altar and the torch where-
by the flame of a new life is lighted,
must be pure. Then is the mother
sacred and set apart for her divine
office. Upon her knees she reads the
Holy Book, that her child may be
spiritually endowed. She hears
sweet music, that the growing soul
may be attuned to happy harmonies.
She looks on art and nature for
beauty of form and color to endow
the growing mind. She fashions
dainty things to forms of grace, that
the hands may be apt for skillful
labor. She lives a life of love, wiping
the tears of sorrow, and feeding
the children of want, that the little
heart she cherishes may be tender
and merciful. She keeps herself purely
apart, lest the lighted breath of
dearest earthly passion should mar
the nestling body or the growing
soul. Her mind dwells upon great
thoughts, and such heroism is hers
that she lies calmly down upon a
bed of torture and of agony to bring
to the light her priceless treasure,
knowing not that she will ever live
to look upon its face. Thus come
the wonders such as you saw."

"Oh!" said the fairies, in chorus.
"But they were not content. This
world of humanity was too sad for
such light hearts as theirs. So they
flocked away to the Man of Science,
and to him the wisest fairy said,
"How can these wonderful objects
come to earth without suffering and
the fear of death for the mothers?"

Then said the Man of Science:
"Fairyfolk, the good Father of hu-
manity never planned that anguish
and fear should cloud the coming of
the little ones, or that one tender
babe should be left motherless, never
to know the best love of earth. To
keep His laws gives safety. These
mothers suffer because their moth-
ers and fathers transgressed. In the
glorious future motherhood will be a
sacred vocation, free from constraint
of the will of another, free from
danger and free from agony. Then
will earth be fairyland."

"O!" said all the fairies in con-
cert.

American Mother.

Fruit Salads.

A fruit salad, crisp and cold from
its resting place on the ice, will re-
fresh a tired palate as nothing else
will on a hot day, and it may be
served at luncheon or be used as the
salad course at dinner. For a banana
salad, take a large and perfect ban-
ana, turn back a strip of the peel, and
carefully scoop out the pulp, with a
small spoon. If you can get the
short, thick variety of banana, in
either red or yellow,—preferably the
former—you will find it best for the
purpose; but failing in these—and
they are very difficult to procure—you

must make the ordinary yellow plain banana serve the purpose. To fill the space left by the removal of the pulp—the banana peels are to be the salad dishes—prepare a mixture of thinly sliced bananas, some shredded orange and stoned cherries, and a few kernels of English walnuts blanched and broken into small pieces; all these ingredients must be mixed in a bowl with a generous supply of mayonnaise or boiled dressing, after which the cases are filled with salad, laid on crisp lettuce leaves, and set on the ice until serving time. This salad should be prepared only a short time before serving—just long enough to permit it to become chilled.

Have you ever served fruit salad in fruit cups? They are newer than frappe-cups, much less expensive, and every hostess can have them with very little trouble. I dare say many of you have made orange baskets in which to serve orange jelly, but how many of you have thought of it as a salad cup? Fill the basket with sliced bananas, and orange and grape fruit pulp, cut into dice and moistened with a French dressing, a few Spanish chestnuts or English walnuts—the chestnuts boiled and peeled, the walnuts blanched—may be added to the fruit, and will be found to give a pleasant variety.

A nice dessert for a somewhat elaborate dinner is a croquette of peaches. Use one and one half dozen nice, ripe, freestone peaches, one pint of strawberries—those of medium size preferred—one pound of finely granulated sugar and one half pint of water. Boil the sugar and water together until it is brittle when you drop it in cold water; as soon as it will snap when you test it, after dropping it in the water, take it at once from the fire. Rub a plain two-quart mold with melted butter. Have the peaches pared, stoned and cut in halves and the strawberries stemmed; put a piece of peach on a wooden skewer, dip it in the syrup, then dip a berry into the syrup and put it in the place from which the stone was removed, then press it against the side of the mold. Line the mold in this fashion, then set it in the ice to harden while you prepare your cream. Use one quart of good cream—not the thick clotted kind, as that will not whip well, but one that will pour smoothly and easily—three-fourths of a cupful of powdered sugar, one teaspoonful of vanilla, one half boxful of gelatine. Cover the gelatine with cold water, and let it soak for half an hour to soften, whip the cream and lay it on a sieve to drain. Add to the soaked gelatine just enough boiling water to dissolve it. Set a large basin into a pan of cracked ice, then turn the whipped cream into it; add the sugar carefully, then the vanilla, and last of all strain in the gelatine, begin to stir immediately, stirring from the sides and bottom of the basin until it begins to thicken, then pour into the peach and strawberry lined mold, and stand on the ice until serving time. When you want it for the table put a plate over the mold, turn it upside down, wipe the outside of

the mold with a warm cloth, then carefully lift it off. My word for it, this dessert is beautiful to look at and delicious to eat.—Exchange.

The Canadian Housekeeper.

This is the title of a bright, newsy and practical monthly magazine devoted to Canadian women and their interests. It is destined to have authority on culinary and household subjects and is being published under the distinguished patronage of the Countess of Minto. The mid-summer number contains some very useful articles on entertaining and practical topics pertaining to women and the home life. The number is well illustrated. It is published by the Canadian Housekeeper Co., Toronto.

Washing Willow Ware.

Wash willow and wicker, in the natural finish, with a scrubbing brush and plenty of warm borax soapsuds, and dry quickly—in the sun if possible. But first dust thoroughly and look after stains and splashes. Dry clean varnish or enameled wicker by rubbing it hard with a swab of prepared chalk and very fine hardwood sawdust tied tight in a square of cheesecloth. When the cloth gets dirty put its contents into a fresh piece. After the rubbing, brush hard with a soft bristle brush. Rub very dirty places with a swab of tripoli as big as the end of the thumb, dipped as lightly as possible in boiled linseed oil.

Cleaning Tufted Furniture.

Clean out tuftings with a little swab of cotton-wood tied on the end of a stout skewer and wet in alcohol. Throw away the cotton as soon as it gets dirty. Clear alcohol lightly used will not mark the most delicate brocades. The swab must not be wet enough to trickle under pressure. Clear the intricacies of carved work with the same sort of swabs, but take especial pains not to have them too wet. With very delicate carving one

must sometimes have recourse to a sandblast, using very fine tripoli and small hand bellows. Direct a quick stream of sand against the carving. In flying back from it, the sand brings away the dust.

"It seems to me, Jane, that the baby has an unusually large head. Good deal like mine, isn't it?"

"Yes, but there is nothing in that."—Cleveland Plain Dealer.

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The Highland and Agricultural Society's Show at Inverness.

Inverness, the capital of the Highlands, had the honor of entertaining the great Scotch show this year. It was the ninth visit in seventy-four years. Victoria Park, where the show was held, is convenient and commodious. The show was the best ever held in Inverness. Owners of valuable stock have often refused to go so far North, but this year the attendance was good and the show a marked success.

CATTLE.

Shorthorns had the first place. Scotch Shorthorns have become accustomed to that position. There were 119 entries as compared with 72 at Stirling last year. Seventeen aged bulls came out. Inspector and Golden Star had a close contest, the former winning. The champion was found at the head of the two year olds. Choice Goods owned by James Nielson. He is a well-balanced blocky roan, not large, but a gay gamey fellow. In the cow classes a two year old heifer, Beaufort Pride 3rd, owned by Lord Lovat, was champion. She is by Royal Star and is said to be the best heifer of her age seen this year. In the Aberdeen Angus rings J. Whyte won with the aged bull, "Jipsej Baron," and gained the male championship. For the cows, Earl of Rosebery won first with "Effie of Dalmeny." She is a big fleshy cow a good specimen of the breed. In Galloways, a yearling heifer, "Graceful 3rd of Garlieston," bred by the late Earl of Galloway, was champion. She is said to be a magnificent specimen of the breed and is owned by Andrew Montgomery. The winner in the aged bull class was MacDougall 4th, shown by Robert Wilson. He is a level stylish bull, thick-fleshed and symmetrical. He stood second last year to Cedric IV. now in Canada. There was a

grand lot of West Highland cattle, and one of the best displays of the breed ever seen. There was a small display of Ayrshires. Only 17 all told, but they were very choice specimens. W. Howe's "White Rose" was made champion of the class. This cow was first and champion at Kilmarnock in the spring. She is a cow of great style and substance.

HORSES.

The display of Clydes was large and good and far exceed the expectations of their friends, both in numbers and general good quality. The judges had a hard time placing the animals and the frequency that an umpire had to be called in was remarkable. Moncrieffe Marquis by Prince of Carruchan was placed first after a close contest with Royal Carrick by Prince of Ariles. The former is a thick, blocky horse, the latter bigger with a gay style. Third and fifth went to sons of Baron's Pride and fourth to a get of Sir Everard. The winning three year olds were both by Baron's Pride, Pride of Bacon, being put over the Royal winner, Baron's Crown. In two year olds Silver Cup for Seaham Harbor was first, and Macniven, a grandson of Prince Alexander, second. The former by Baron's Pride won at the Royal and the latter was Edinburgh champion. Baron's Chief, another son of the champion sire, was placed third. Yearlings were headed by the white legged Everlasting. He has had an unbeaten record so far and looked well. For size, quality, bone and action he was a clear first, and won for his owners, A & W. Montgomery, of Nether Hall, the champion medal for the best Clyde in the show. Ardlethen, a fine big colt, was second in the yearlings. He is by Gold Mine. Third and fourth places went to colts by Baron's Pride. In the class for brood mares there was quite a contest between "Balmedre's Queen Mab" and "Lady Douglas." The former is an old winner, the latter the fresher of the two. Princess Beautiful, by Cedric, bred by Col. Holloway, of Alexis, Illinois, was third. Fourth, Nellie Grey, and fifth, Lady Garnet, these two, as well as the second winner, are daughters of B. P. The field mares were an extra good lot. The first prize winner, by Sir Everard, named Lady Margaret, is one of the biggest and best mares of the breed ever seen. For three year olds Topsy's Pride and Cedric Princess had a close contest. The former, the biggest of the two, won. They have frequently met this year with varying results. Both are by B. P., as was also the winner of the two year olds, Pomona, bred by the late Queen and now owned by Lord Rosebery. Second went to Lady Rose, by the same sire. White Heather, another half-sister, was third. Yearlings were a good lot, but not so many as the two year olds. Royal Ruby, out of the Macgregor mare, Royal Rose, was placed first. Pyrene, winner at Edinburgh, was placed second, and third place to Lady Sybil, own sister to Benedict. All these three winners were by Baron's Pride. The championship went to Everlasting, the year-

ling colt, with Silver Cup the reserve. Lady Lothian won the Cawdor Cup for mares, with Lady Margaret reserve. This is the third time that Lady Lothian has won this cup. Light horses were not as numerous as when the show was farther south. There were some good Hackney mares shown but the class on the whole was not of superior merit. There were a number of ponies shown, both Shetland and Highland.

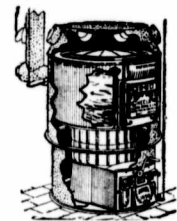
The Atlantic Refining Company

Too much commendation cannot be accorded to those Toronto citizens and business men, who by their enterprise and honorable methods have been so largely instrumental in stimulating her industrial and commercial development. Among other establishments which have contributed materially, by energetic persistence and successful business methods, to the uplifting of this city, is the Atlantic Refining Company, whose large four-

HORSEMEN! THE ONLY GENUINE IS GOMBAULT'S CAUSTIC BALSAM.

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The Lawrence Williams Co.
Sole Agents for the Province of Ontario
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The Safest, Best BLISTER ever used. Take the place of all liniments for mild or severe action. Remove all Bunches or Blemishes from Horses and Cattle, SUPPERS ALL CAUTERY or FIRING. Impossible to produce scar or blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars.
THE LAWRENCE WILLIAMS CO., Toronto, Ont.



Don't Neglect Heating Arrangements

when building a new home or remodeling an old one. A HOT AIR FURNACE will give you a much more efficient, convenient and economical system than by using stoves. Write us about our

HECLA FURNACE

It will burn any kind of fuel,—coal, wood or peat. Its PATENT FUSED JOINTS keep it free from dust, smoke, or gas. Write us for estimates and advice.

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PRESTON AND WINNIPEG

ALVA FARM GUERNSEYS



THE
TYPICAL
DAIRY
BREED.

Good Animals of both Sexes for Sale.

Sydney Fisher,
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ROCK SALT for horses and cattle, in ton and car lots. Toronto Salt Works, Toronto

Sheep

OXFORD DOWN SHEEP

Durham Cattle, "Milking Strains"; Yorkshire Pigs; Plymouth Rock Poultry. John Cousins & Sons, Harriston, Ont.



SMITH EVANS, GOUROCK, ONT.

Breeder and Importer of registered Oxford Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited.



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AT FARNHAM FARM

50 Superior Yearling and Two Year Rams.
2 Extra Fine Imported Lambs.
100 Ram Lambs.
And a number of good Yearling Ewes and Ewe Lambs.
—PRICE REASONABLE.

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Temperance St., Toronto, Can.

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Patrons: Governor General of Canada and Lien tenant-Governor of Ontario. The most successful Veterinary Institution in America. Experienced Teachers. Fees, \$50 per session.

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NO SPAVIN 3

The worst possible Spavin can be cured in 45 minutes. Curbs, Splints and Kingbones just as quick. Not painful and never has failed. Detailed information about this new method sent free to horse owners.

Write to-day. Ask for Pamphlet No. 1.

FLEMING BROS., 58 Bay St., Toronto, Ont.

story warehouse and complete offices are located at the foot of Jarvis street, on the waterfront. The Canadian managers of this enterprise are Messrs. A. E. Lewis and F. N. Vanzant, who during the last three years, by close attention to business, have built up for their company a large and extensive trade in lubricating oils and greases of all descriptions. The Canadian branch of the business requires about sixty employees, their salesmen covering the entire Dominion. They have four branch distributing warehouses, located respectively at Winnipeg, Nelson and New Westminster, B.C., and St. John, N.B. They import nothing but the very highest grades of illuminating and lubricating oils and greases made from Pennsylvania product, which is the finest in the world. The bulk of their supplies is received in tank cars and put into barrels, while they obtain, during the summer months, a large quantity of goods via water. They are large importers of English linseed and castor oils, also pure spirits of turpentine, all of which they sell subject to chemical analysis. Their other lines, lubricating oils, greases, etc., are uniform in quality and customers can depend on having their orders filled as specified. They make a specialty of black roofing paint, called Elastic Carbon Paint, which undoubtedly is the most satisfactory article introduced into Canada for preserving any kind of metal or wood roof.

The head offices are located at Cleveland, Ohio. The president of the Company is Mr. Geo. C. Hascall, who laid the foundation of the business in a small way some seventeen years ago, in Springfield street, Cleveland, he having then only one man and one office girl. The secretary of the Company, Mr. S. D. Wise, has contributed largely by his untiring energy and ability towards making the business a success. Other large warehouses and branch offices of the Company are located at New Britain, Conn., and New Orleans, La. The Company report that the business last year was the largest and most successful in their history.

As She Remembered Him.

Mr. Skimmerhorn (as the participants of the debate became personal) —I was a thundering fool when I asked you to marry me.
Mrs. Skimmerhorn—Well, you looked it, dear.—Chicago Tribune.

"Do you believe a cure can be effected by the laying on of hands?"

"Certainly; that's just the way I cured my Johnny of smoking cigarettes."—CreditLost.

Stock

J. A. RICHARDSON, South Marsh, Ont., Breeder of Holsteins, Dorset-Horned Sh. and Tamworth Swine.

E. PANNABECKER, Fairview Farm, Hespeler, Ont., breeder of reg. Holsteins. Stock for sale.

DAVID McCRAE, Janefield, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold Sheep. Choice animals for sale.

IMPERIAL HOLSTEIN-FRIESIAN STOCK FARM

10 Young Bulls from one month to four months, bred from Winnie R's De K&L.

W. H. SIMMONS,
New Durham, Ont.

RETTIE BROS.

HOLSTEIN-FRIESIAN BREEDERS

A few choice young animals for sale. RETTIE BROS., NORWICH, ONT.

Glen Crescent Shorthorns and Oxfords.

Sheep of both sexes and all ages, and two bull calves by imported sire for sale.

J. W. WIDDIFIELD,

Uxbridge, Ont.

AYRSHIRES AND YORKSHIRES FOR SALE.

SIX PURE-BRED AYRSHIRE BULLS coming 1 year old, fit for service, and one coming 2 years old next August. All sired by "White Prince" (Imp.) except the one coming 2 years-old. As I am about renting my farm these bulls will be sold cheap if taken at once. Also a number of fine pure-bred Yorkshire Sows from 1 to four years old.

JOHN H. DOUGLAS,
WARKWORTH, Ont

MAPLE LODGE STOCK FARM.

Shorthorns For Sale.

A few choice young bulls, and some excellent heifers and young cows. Our cows were awarded first prize at Prov. Dairy Test, 1899 and 1900. Imp. Knuckle Duster, and Imported Sir Wilfrid, at head of herd; Leicester sheep, imported and home bred. The best. A. W. SMITH, Maple Lodge P. O., Ont

SHORTHORN BULLS

Two choice bulls about a year old

FOR SALE

JOHN McNAB,
Rockwood, O

The Up-to-date Herd Tamworths

Bred from sweepstakes herd. Young stock of both sexes for Sale.

W. H. McCUTCHEON, BRUSSELS, ONT

OAK LODGE YORKSHIRES



are acknowledged to be the best type of bacon hog to produce the ideal carcass for the best English trade. CHAMPIONSHIP HERD AT TORONTO INDUSTRIAL EXHIBITION FOR NINE YEARS also sweepstakes on Dressed Carcass at Provincial Winter Show. We have on hand now a large herd of different ages. Our prices are reasonable and the quality is guaranteed to be choice. Write

BRETHOUR & SAUNDERS,

Burford, Ontario

Market Review and Forecast

Office of The Farming World,
Confederation Life Building,
Toronto, August 5th, 1901.

Though this is between seasons in quite a number of lines, business in general is satisfactory for this season. People have every confidence in the future trade of the country. Money keeps active at about 5 per cent. on call, though some report securing it at 4½ per cent. Discounts are steady at from 6 to 7 per cent. as to name and nature of account.

Wheat.

The wheat situation during the week has not been marked by any striking event. The heavy rains in the Northwestern States have greatly improved the spring wheat and corn crop, causing a decline in the speculative market. Latest reports from Europe indicate a fair average crop in France and Russia. The big fall wheat crop of the United States is practically assured, and already some of the new crop is on the move. Then Manitoba will likely have an output of over 40,000,000 bushels, while a fair average crop prevails throughout Ontario, though some few sections in the west have suffered from the Hessian fly. The amount of wheat and flour now in transit to Europe, with the visible supply of wheat in the United States and Canada, is equivalent to 66,710,000 bushels, against 64,410,000 the week previous and 76,674,000 bushels one year ago, showing an increase of 2,307,000 bushels on the week, and a decrease of 9,964,000 bushels as compared with this time last year. Locally the wheat market is rather quiet though prices are steady at from 65c. to 66c. for red and white, middle freights, 61c. to 63c. for goose, and 66c. to 67c. for spring, east. On Toronto farmers' market, red and white bring 69½c. to 70c., goose 68c. and spring fine 68c. per bushel.

Oats and Barley.

The oat market is quiet but steady with little or nothing doing on export account. No. 1 white are quoted here at 36c. east and No. 2 at 34c. to 35c. On the farmers' market oats bring 39c. to 40c. per bushel. There is little doing in barley. On the Toronto farmers' market it brings 43c. per bushel.

Peas and Corn.

The market for peas continues firm with a strong export demand. Prices here are nominal at about 70c. The corn market keeps firm; Canadian yellow is selling here at 43c. and No. 2 American yellow is quoted here at 59c. to 60c. in car lots, Toronto.

Bran and Shorts.

There seems to be a good demand both in Great Britain and the United States for Ontario bran, and consequently the supply keeps well cleaned up. Car lots are quoted at Montre-

al at \$15 to \$16 per ton. City mills here sell bran at \$14 and shorts at \$16 in car lots, f. o. b., Toronto.

Potatoes.

A fairly good crop is expected this year. New potatoes are not offering here very freely, and consequently supplies are quickly picked up. Job lots sell at \$1.10 per bushel. On Toronto farmers' market new potatoes bring \$1.00 to \$1.15 per bushel.

Hay and Straw.

Though the new crop is a big one a good business continues in old hay, there being an active export demand. Prices show little change. Car lots of baled hay are quoted at Montreal as follows: No. 1 \$11, No. 2 \$9.50 to \$10 and clover \$9 per ton on track. Old hay is selling here at \$9.50 to \$10 for car lots on track, and new at \$8 to \$8.50 per ton. On Toronto farmers' market old hay brings \$13; new \$8 to \$10, and sheaf straw \$9 to \$10 per ton.

Eggs and Poultry.

There is an improved demand in England for eggs which has caused more activity on this side. At Montreal straight lots are selling at 10½c. to 11c. and candled at 11½c. to 12c. in a jobbing way. Selects are scarce here and firm at 12½c. Held fresh bring 11c. to 11½c. in case lots. On Toronto farmers' market new laid bring 14c. to 15c. and held stock 12c. to 13c. per dozen. On the Toronto farmers' market old dressed chickens bring 50c. to 75c., spring chickens 50c. to 80c. and ducks 75c. to \$1.25 per pair, and turkeys 10½c. to 12½c. per lb.

The Canadian Produce Co., 36 and 38 Esplanade east, Toronto, will pay for week ending August 15, for ducklings and spring chickens, not less than two lb. each, 7c per lb. For hens (including last year's birds) 4c. per lb. These prices are for live weight on arrival. Crates shipped free and express paid up to 50c. per 100 lbs. of chickens.

Fruit

It is reported that the apple crop of Ontario and Quebec will not be heavy, while that of Nova Scotia will be good. It is hardly probable that we shall see apples contracted for at 40c. per bbl. this fall. Red raspberries and Lawton berries are selling on Toronto fruit market at 10c. to 12c. per box; black currants at \$1

to \$1.15, red currants at 50c. to 60c. and huckleberries at \$1 to \$1.15 per basket.

Cheese.

Cheese on the whole is selling about ¼ of a cent lower than at the beginning of the week. A firm feeling continues in England and as stocks on both sides of the Atlantic are not large a good fall business may be looked for. As a rule the pastures are in good condition and a large fall make may be looked for. Finest Westerns are quoted at Montreal at 10c to 10½c and finest Eastern at 9½c to 9½c. At the local markets during the week things have been rather quiet with prices ranging from 9½c to 9½c per lb., with the bulk selling at about 9½c to 9½c. At Brockville market on Thursday, sales were made at 9½c to 9½c but little business was done.

Butter.

The Trade Bulletin summarizes the butter situation of the week as follows:

"The market for butter is firm and higher for anything strictly fresh and choice, which is scarce, sales of same having transpired in this market at 20c to 20½c, and a lot of 250 boxes of very choice mild salted Eastern Townships creamery was taken for export at 20½c. Of course, last week's make was nice and cool, and the quality was really worth more than the previous make in July. Apart from that, however, the market is undoubtedly better for finest cool creamery. Our special London cable this week is 2s higher with an improved demand. After the deluge of rain in England we were looking for a drop of 2s instead of the cabled rise to that extent. West Shefford creameries sold at 21c at the factory, and a fraction over that was paid for one creamery; but these sales are no criterion of this market, as the goods are specially made and saltless. The bulk of the sales on this market were at 20c for choice creamery. Quite a lot of seconds sold at 18½c to 19½c. Great complaints are made of the quality of July Western dairy, some of which has been refused. It cost 15c f.o.b., and when it arrived here it was scarcely solid enough to bore, besides being off flavor. A nice lot of June dairy was bought west of Toronto at 15½c for this market."

Creamery is steady here at 21c for prints and 20c. for tubs and boxes. While the offerings of dairy are large, very little choice butter is coming in. The choice quality brings 16c to 18c and other quality 10c to 15c per lb.

CANADIAN PRODUCE Co.

TORONTO

Want Every Chicken in Ontario

AND WANT AGENTS TO BUY THEM.

On Toronto farmers' market lb. rolls being 18c to 20c and crocks 17c to 19c per lb.

Wool.

The market is quiet though a steadier feeling is reported at Montreal for Canadian. Quotations here are the same at 8c to 9c for unwashed and 12½c to 13½c for washed.

Cattle.

The deliveries of live stock at the Toronto cattle market on Friday, were not large, being composed of 662 cattle, 1,800 hogs, 1,200 sheep and lambs and 60 calves. There were not enough good cattle offered to supply the demand, while the poorer quality was all too numerous. Too many rough old cows are coming forward for which there is little or no demand. Trade for fat cattle was fairly active, and considering the quality, prices earlier in the week were well maintained. Very few feeders and stockers were offered. Trade for milk cows was inclined to be dull and prices ranged from \$30 to \$48 each.

Export Cattle—Choice loads of these are worth from \$5.00 to \$5.75 per cwt., and light ones \$4.50 to \$4.80 per cwt. Heavy export bulls sold at \$4.00 to \$4.25, and light ones at \$3.60 to \$3.75 per cwt.

Butchers' Cattle—Choice picked lots of these, equal in quality to the best exporters, weighing 980 to 1,125 lbs. each, sold at \$4.40 to \$4.50 per cwt., good cattle at \$4.12 to \$4.35, medium at \$3.75 to \$4.10, and inferior to common at \$2.75 to \$4.00 per cwt.

Feeders—Heavy, well-bred steers, from 1,100 to 1,200 lbs. each, sold at \$4.25 to \$4.50, and other quality at \$3.90 to \$4.00 per cwt. Light steers, 900 to 1,000 lbs. each, sold at \$3.90 to \$3.50 per cwt.

Stockers—Yearling steers, 500 to 800 lbs. each, sold at \$3 to \$3.25, off colors, and inferior quality at \$2.50 per cwt.

Calves—There are in slow demand at Buffalo, veals bringing \$5.00 to \$5.50 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Sheep and Lambs.

Prices for sheep keep steady though lambs of which there was a large number of inferior quality offered were easy at quotations. Good lambs sold at fair prices. Sheep sold at \$3.35 to \$3.50 per cwt. for ewes and \$2.75 to \$3 for bucks. Spring lambs sold at from \$2.50 to \$4 each.

Hogs.

Hogs continue to maintain the high prices of the past month or two. Best select bacon hogs not less than 160 nor more than 200 lbs. in weight, unfed and unwatered off cars sold at \$7.25 and lights and fats at \$6.75 per cwt. Unculled ear lots sold at about \$7 per cwt.

The Wm. Davies Co., Toronto, for the week ending August 10th, will pay \$7.50 per cwt. for select bacon hogs and \$7 for lights and fats.

Horses.

The horse market continues quiet. There is some inquiry east for high-class carriage and saddle horses. Mixed lots of horses have been selling at Montreal at from \$95 to \$190

each, the latter price being for heavy drafts. Remounts are still being bought for the English war office.

Business at Grand's has been fairly good during the past few weeks considering the season. Things are expected to be more active in a week or two. The proprietor, Mr. W. Harland Smith, is preparing for a big sale of registered Clydesdales early in September. A very fine lot will be offered, chiefly fillies. Parties desiring good horses should be on the look out for special announcement which will appear later.

Flies Annoying Animals.

There is no longer reasonable excuse for neglecting to protect stock, especially milking cows, from flies, because satisfactory preparations can be easily secured and applied. It is a fact that flies, especially horn flies, cost farmers a tremendous amount of money annually, thus rendering summer as objectionable with flies, as winter with cold, when the stock has to be housed and fed by hand. Cows unprotected from flies in summer do as poorly, as those allowed to live around the straw stack in winter. It is not a difficult matter to apply "Shoo-Fly" as often as is necessary, and it is sold cheap in convenient form, by Wm. Rennie, Toronto.

Applying Poultry Manure.

Poultry manure is richer in fertilizing constituents than the manure from other classes of farm stock. This is especially true of its nitrogen content. The value of poultry manure, like the value of other farm manures, depends largely upon the amount of water which it contains. Fresh poultry manure usually contains a smaller proportion of water than either horse, cattle, sheep or swine manure. Fresh poultry manure frequently contains from 50 to 65 per cent of moisture.

In a general way poultry manure may be said to be about twice as rich in fertilizing ingredients as the manure from other farm animals. Unless the poultry manure is free from other substances and is dry and in a fine mechanical condition it probably will not pay to attempt to apply it except as other manure is usually applied. On account of its high fertilizing value it is sometimes thought advisable to apply by means of the various fertilizer attachments of seed distributors. This, however, is of doubtful expediency and should not be attempted whenever the manure is moist and in a poor mechanical condition or whenever it contains foreign substances that would interfere with its distribution.

Poultry manure applied as a top dressing in general will give quite as good satisfaction as any other way. Because it contains little vegetable matter it is of little value to supply humus when plowed under. The safest manner of application, therefore, is on or near the surface. It may be incorporated with the surface layers of the soil and surface tillage.

Fencers and Farmers



The Beaver Post Hole Digger

Works in any soil.
Cannot get out of order.
Is positively guaranteed superior to all others.
Railway Companies use them altogether.

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The test of time proves Windsor Salt as "best" and "stronger test exists." Buy Windsor Salt and you buy an absolute pure, white, dry Salt that has no equal.

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WILSON'S HIGH-CLASS SCALES

SPECIAL PRICES THIS MONTH

On 2,000 lb.

Diamond Steel Bearing
SCALES

Write to-day.

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50 Esplanade St. E., TORONTO, ONT.

Spooner's "PHENYLE"
Powder
"Phenyle"
GERMICIDE
DISINFECTANT..

KILLS CHICKEN LICE

and Lice on Horses and Cattle, and Ticks on Sheep. Keeps them Healthy. Easily applied; no dip required.

60lb. boxes, 1lb. packages, 2½c. lb.
70lb. pails, 15c. lb.
400lb. barrels, 10c. lb.

If your Druggist does not sell it, send direct to

ALONZO W. SPOONER,
Laboratory, PORT HOPE, Ont.

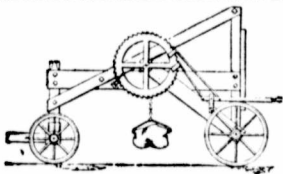
It will cure and prevent hog cholera.

A Settin' Hen

When a hen is bound to set,
Seems as though 'tain't etiket
Dowsin' her in water till
She's connected with a chill.
Seems as though 'twas kersely right
Givin' her a dreadful fright,
Tyin' rags around her tail,
Poundin' on an old tin pail.
Chasin' her around the yard,
—Seems as though 'twas kind of hard
Bein' kicked and slammed and shoed
'Cause she wants to raise a brood.
I sh'd say it's gettin' gay!
Jest 'cause natur' wants its way,
—While ago my neighbor, Penn,
Started bustin' up a hen;
Went to yank her off the nest,
Hen though made a peck and jest,
Grabbed his thumbnail good and stout,
—Liked to yanked the darned thing out.
Penn he twitched away and then
Tried again to grab that hen.
But, by ginger, she had spunk,
'Cause she took and nipped a junk,
Big's a bean right out his palm,
Swallowed it and cool and calm
Hi'sted up and yelled "Cah hah!"
—Sounded like she said "Hoo-rah!"
Wal, sir, when that hen done that,
Penn he bowed, took off his hat,
"Set," says he, "gol darn ye, set!"
—Spunk jest suits him, you can bet—
—Lewiston Journal.

No Home should be without it. Pain-Killer, the best all-round medicine ever made. Used as a liniment for bruises and swellings. Internally for cramps and diarrhoea. Avoid substitutes, there is but one Pain-Killer, Perry Davis'. 25c. and 50c.

LEMIRE'S STONE AND STUMP LIFTER



The New Stone and Stump Extractor invented by Lemire. Capable of lifting 18,000 lbs. Has no equal for lifting and carrying stones, etc., for placing stones so as to build up fences to fit high, and leave the ground in a condition fit for mowing and reaping machines. After the hooks are adjusted on the stones, the only thing to do is to pull the lever. You can lift up a thing, carry it and place it on a stone fence in 10 minutes. The agricultural societies and clubs of farmers should all buy it. Price moderate. For complete details address—John Amiraux, 40 Lansdowne Ave., Toronto, Ont., or Plessville Foundry, Plessville, Que. This Stone Extractor is guaranteed for the extraction and transportation of 10 to 30 stones a day, fixed in fences.

ST. LAWRENCE COFFEE HOUSE

78 and 80 King St. East

"RESTAURANT" TORONTO

Dinner for 20c.

6 Dinner Tickets \$1 Served from 11.30 to 3 for 1:1:1:1:1:1 and from 6 to 8 Farmers and their wives visiting Toronto will find this to their taste.

FITS Leibig's Fit cure for Epilepsy and kindred affections is the only successful remedy, and is now used by the best physicians and hospitals in Europe and America. It is confidentially recommended to the afflicted. If you are afflicted with Epilepsy, ST. VITUS' DANCE, or have children or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle and try it. It will be sent by mail prepaid. It has cured where everything else has failed. When writing, mention this paper, and give full address to **THE LIEBIG CO., 179 King street west, Toronto.**

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GUELPH.

A large staff and first class equipment, furnishing the kind of education needed by young men intending to live on the farm or follow any kind of practical or professional pursuit connected with farming.

- (1) **Two Years' Course for Associate Diploma, Sept. 13th.**
- (2) **Four Years' Course for B.S.A. Degree, Sept. 13th.**
- (3) **Dairy Course, Jan. 4th.**
- (4) **Two Weeks' Course in Judging Live Stock and Seed Grain Jan. 3th.**
- (5) **Four Weeks' Course in Poultry Raising, Jan. 10th.**

Send for Circular giving full information as to cost, terms of admission, etc.

July, 1907.

JAMES MILLS, M.A., President.

\$10.00 FOR \$1.00

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"He who would succeed quickly must profit by other men's experience."

This applies especially to the farmer of to-day. We positively guarantee that every farmer who will carefully read THE FARMING WORLD every week for one year, and will apply the knowledge gained, will be at least ten dollars richer. It costs only one, and contains the experience of the wisest and most successful farmers in every department of agriculture. Address,

THE FARMING WORLD, Toronto.



The Drum in position.

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and HEAD NOISES

Relieved, the progress of Deafness stopped and sensitive ears protected by

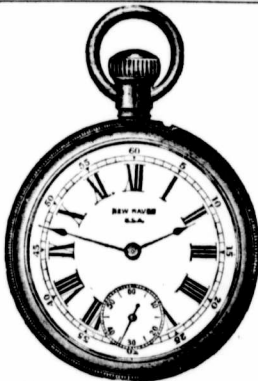
THE COMMON SENSE EAR DRUMS

which are made of soft rubber only; are absolutely invisible and comfortable, and can be worn at all times both day and night, by infants and children, as well as adults with perfect safety and comfort.

Call or write for pamphlet and testimonials showing benefit in cases of Catarrhal Deafness, Roaring and Hissing Sounds, Discharge from Ears, Relaxed, Sunken or Thickened Drums.

The Common Sense Ear Drum and Medicine Co., Limited
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