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August 8th, 1899

Farming

A Paper for

Farmers and Stockmen

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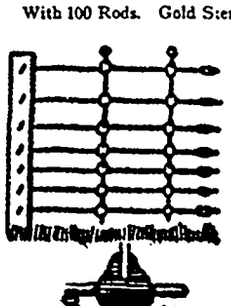

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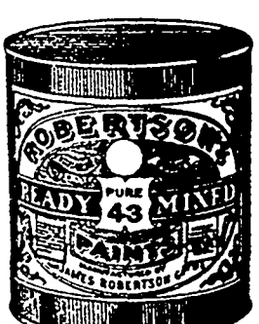

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FARMING

VOL. XVI. AUGUST 8th, 1899. No. 49

Growing Fall Wheat

While the Ontario farmer may never be able to successfully compete with his brother farmer in the great West in the growing of wheat, yet he does and will, doubtless, for some years to come, continue to grow more or less of it. The changed conditions, however, of recent years make it more profitable for the farmer in this part of Canada to confine his operations largely to some other line of farming in which the Western farmer is not so strong a competitor. This he has in a system of farming that has as its chief feature the raising of good horses, cattle, sheep, and swine, and giving special attention to the dairy and poultry branches of his business. By turning his attention in this direction and by making stock-raising, dairying, etc., the main feature of his farming operations, and not secondary in any sense as many do we believe the farmer in the older sections of Canada will reap greater annual profit and at the same time very much improve the condition of his land than in making grain-growing his main object.

But, be that as it may, the fact remains that nearly all, if not all, of our farmers are still growing wheat, and will likely continue to do so in a greater or less degree for many years to come. If such be the case, then it is of the utmost importance that the crops should be grown in the very best way. It is much better to grow ten acres well prepared than thirty or forty acres half prepared and not in proper condition to insure a good crop. For the purpose of gathering some information in regard to the fall wheat crop that would be helpful we wrote to a number of farmers and fall wheat growers, submitting the following questions:

(1) What do you consider to be the best preparation of the land for fall wheat?
(2) Have you used commercial fertilizers on this crop, and, if so, with what result?
(3) What do you consider to be the best time for sowing fall wheat?
(4) What kind of wheat has given you the best results?
(5) Do you, as a rule, sow your own seed, or purchase new?
(6) What will be the probable yield of the 1899 crop of fall wheat in your district?

We have received a good many replies to these questions, containing a lot of practical information which we think it will pay our farmers to carefully read. Some of these replies are published in our correspondence column this issue, and the balance will appear in succeeding issues. Information of this character, coming from practical farmers who have grown wheat for many years, is of the most valuable kind. We have aimed, as far as possible, to get information covering, so far as possible, the leading wheat-growing sections of the province. We would also be glad to hear from others who would care to give us their views on this subject for publication.

Destroying Grasshoppers

The letter of "Canadian" in our issue of July 25th, drawing attention to the visit of grasshoppers or locusts to the southwestern part of Manitoba, emphasizes the necessity of adopting preventative measures, should there be any likelihood of this pest spreading over the Northwest. In many of the Western States the grasshopper often does serious harm to large sections of country when allowed to increase in large numbers and to spread over the country. So much so is this the case that considerable attention is given to preventative measures and methods for the destruction of locusts. The Nebraska Agricultural Experiment Station has recently issued a press bulletin on the subject, from which we take the following:

"During normal conditions of weather, etc., the insects of any region are kept within bounds by means of their natural enemies, and no dire results follow. When these conditions are disturbed in any way and restraining influences are withdrawn, the more hardy species increase very rapidly. Such increase in numbers, of course, means the requirement of an increased amount of food and we see the result more plainly. Some kinds of locusts prefer different haunts and food plants from what others do, and hence the seeming difference in the amount of harm done by each.

"When the natural checks upon locust increase fail, and these insects multiply abnormally, it is necessary to use artificial means for reducing their numbers. It is chiefly to suggest what can be done in this direction that the present circular has been prepared."

First of all, I wish to suggest that our native birds be protected, since nearly all of them are especially fond of locusts as a diet during the summer months. When our prairie chickens and other grouse were still numerous no harm whatever was reported as coming from "native grasshoppers." Quails, plovers, blackbirds, sparrows, hawks and even ducks are known to feed largely upon these insects. A single bird of any of these species will destroy thousands of them. Where the birds are destroyed the extra thousands of locusts soon increase beyond the normal and injury results. Year after year the gap is made wider and the possibility for harm increases. Even frogs, lizards, snakes and other animals that come under our ban destroy many of these destructive locusts, and every time we thoughtlessly kill one of them we make it possible for their natural food to do us harm.

Only a few weeks ago the writer saw dozens of birds engaged in feeding upon the young of the migrating locust in Sioux county, where the insects had hatched in one of the valleys by millions.

Aside from the birds, reptiles and some of the smaller mammals that habitually feed upon locusts these insects are attacked by numerous kinds of other insects. These latter of course increase and decrease accordingly as their food increases or decreases, but they also are affected by climatic conditions. Conditions that are unfavorable to the increase of these enemies do not seem to appreciably affect the 'hoppers, hence the frequency with which the latter become destructive does not seem to be materially affected by parasitic and predaceous insects.

When we have removed about the only check to the increase in destructive numbers of the locusts we most naturall seek relief artificially.

Thus far we have been only partially successful in our attempts at destroying grasshoppers by the use of fungus diseases. Unlike the chinch-bug fungus the one that attacks locusts in North America is comparatively slow in its action and only appears to take hold of the insects after they are about half grown. This being true we must look elsewhere for a means of warfare.

If we carefully watch where eggs are deposited in rather large numbers we can destroy these by harrowing or discing the ground and exposing them to the drying influence of the sun or to the keen eyes of birds. Deep plowing during fall and early spring will bury locust eggs so deeply

that the young 'hoppers when they hatch are unable to reach the surface.

By all odds the best method of destroying these insects is the use of the "hopper dozer," or kerosene pan. This is made of stove-pipe iron by turning up the sides and ends so as to make a long flat pan about four inches in depth. This is then mounted on runners varying in height according to requirements. On the frame back of the machine is stretched a piece of cloth to prevent the insects from jumping over the pan. When ready to begin work this pan is partially filled with water and then some coal oil is added. If the ground is level no cross pieces are necessary, but if the machine is to be used on sloping ground it should be made to prevent the oil and water from running to one end. The height of the runners will necessarily vary from two to eight or ten inches, according to the crop to be protected and the age of the insects to be captured. The "dozer" may be of any length desired up to sixteen or eighteen feet. If small it can be drawn by hand, but when larger a horse or two is preferable. When full the insects can be removed, a little more oil added and the machine again started. In this way a number of bushels of 'hoppers may be destroyed during a single day. The cost is trifling and the remedy very effectual.

In a garden an old hen with chickens will prove quite valuable, while a flock of turkeys will do much good in ridding the premises of the pest.

Slaughter for Tuberculosis

A couple of weeks ago a public slaughter of tuberculous cattle took place at Syracuse, N.Y. The slaughter was conducted by a committee of the State Assembly and the public were invited. The State veterinarian was present and also Prof. Law, of Cornell University, who made an official diagnosis of each carcass.

The herd from which the slaughtered animals were taken was tested on June 14, and out of twenty-seven animals twenty-one reached to the tuberculin test. The herd was brought to Syracuse July 15 and on the afternoon of July 18 another test was made. Two readings were taken that day and four the following and all the animals again reacted showing a rise above normal of from about two to four degrees, or an average temperature of from 103° to 104½°. With the exception of one or two the animals were a sickly looking lot and any veterinarian could probably have said from physical examination alone that the animals should have been slaughtered.

When slaughtered the dressed parts of the carcases were carefully examined and a special report made of each animal. In the application of the test the rise of temperature was very marked at the first reading, and even through the remaining five readings. This might indicate that if tuberculin is to be relied upon at all, tuberculosis was pretty well advanced in these animals. The two animals, which from physical appearances one would judge to be healthy, the post mortem showed to be the most diseased of all.

The following, which is taken from the report of the slaughter as it appeared in a recent issue of *The Country Gentleman*, sums up the conclusions and shows wherein the slaughter failed to establish indisputable proof of the reliability of the tuberculin test:

The deductions to be drawn from this test are (1) that tuberculin can be relied on to diagnose tuberculosis when in an advanced stage; (2) that the animals killed were a menace to the public health, and that the State Tuberculosis Committee were justified in quarantining this herd; (3) that to protect the consumers of this State from unwholesome milk and diseased meat, the work of inspection should be vigorously prosecuted along reasonable lines.

A mistake was made in not purchasing from Mr. Brown the animals in his herd which did not react. They should have been killed with the others, and if found free of disease, the victory for tuberculin would have been complete. As it is, in a herd so badly affected, there will always be reason to suspect that the animals which did not react were also diseased, and that tuberculin did not do its work. The fact that the animals killed and found diseased had reacted to tuberculin does not prove its infallibility. The State Board of Health, in past years, killed many herds of cattle that had reacted, and were found diseased on post-mortem. What the State should do is to secure a herd which, on physical examination, is pronounced by a competent veterinarian free of disease; then tuberculin-test them, and kill those that respond to the test, as well as those which do not. If the latter are found diseased, then tuberculin cannot be wholly relied on; if free from disease, its reliability would be established, and contention on this point ceases.

Cement Floors in Hog Houses

In reply to a question in the *National Stockman and Farmer*, asking for information in regard to cement floors in hog houses, Mr. Waldo F. Brown, Butler County, Ohio, says:

"The first thing to do is to throw out the earth, and the excavation should be down to solid earth. On my soil we dig down about ten inches, and fill to within four inches of the top with small stone or gravel, and level it off and tamp down solid. Next fill to within half inch of top with concrete. This is made by mixing gravel and cement, or part gravel, part broken stone, no piece larger than a hulled walnut, and part sand, will give the best concrete, and with these materials you can use twelve barrels to one of cement, five or six of gravel, three of crushed stone, and three of coarse sand, or, if the gravel is sandy, six of it and the same of the stone. I use only gravel, as there is no machine for crushing stone in this locality, and use nine of gravel to one of cement. The material for the concrete must be thoroughly mixed; we measure it in a bucket, and build up a heap of a perch or so, and then beginning at one side we shovel it over four times dry. The mixing cannot be too thorough, as every pebble should be coated with cement so that it will adhere to its neighbor, for the concrete foundation should be one solid rock when it hardens. The fifth time it is shovelled over sprinkle with water so as to thoroughly dampen it, but do not make it dripping wet, and now it is ready to be put down. Stake strongly some two-inch pieces at the edges of where the floor is to be made, and with square and level get them in the right position, and wheel the concrete and spread it two inches at a time, and ram solid. An iron pounder is best, but for a single job you can make a rammer of thick oak plank, three inches thick is best, but two will answer. Saw it eight inches square, and bore a hole in the centre, and put an upright handle to it. The tamping must be well done so as to leave no cavities, and in order to leave just a half inch of the finishing coat, use a straight-edge with a half inch cut out at each end, and then as you lay it from one edge piece to the other you can get an exact half-inch for the liquid stone. Portland cement does not set as quickly as the cheaper grades, and while I advise putting down the concrete as soon as mixed, if some is left to stand over night it will not be spoiled, but can be put down in the morning.

"As soon as the frame is filled with the concrete mix the mortar for the topping. Coarse, sharp sand gives the strongest floor, and I screen the sand out of the gravel from which the concrete is made, using a screen with quarter-inch meshes. Mix in a box two parts of sand to one of cement, temper thoroughly and spread as soon as mixed and fill to the top of the frame. Turn the straight edge over and level off with it to the top of the frame, and see that the corners and edges are filled and smoothed. Lay the floor in sections about three or four feet wide so that you can easily reach across to trowel and float it smooth. Now carefully remove the edge piece and set it for the next section, using the floor for the straight edge to work on at the side finished, and as you lay the second strip be careful to make the union perfect between the last strip

laid and the one you are putting down. I do not use any sills in building a log house, but make small columns of cement say six inches square and four inches high to set the posts on and put the bottom nail tie six inches or more above the floor. We make the floor of the hog house first, and let it harden a week and then put up the building. After the floor is laid protect it from the sun if the weather is hot and sprinkle it with water twice a day for a week. One barrel of cement (580 pounds net) will lay one hundred square feet of floor. I make all of my hog houses eight feet wide and then make an outside floor of the same width as long as the house and from ten to twelve inches lower, to throw out the manure and soiled bedding on, and this practically doubles the size of the house, and in all good weather the hogs will prefer the outside floor to the house. I find that a room twelve feet long and eight feet wide will be large enough to fatten ten large hogs comfortably or twelve pigs that will weigh 180 pounds each. I am intending to make a house this summer and shall make the trough of cement."

A Successful Alfalfa Grower

Growing alfalfa has received more attention in the Western States than any other part of the Union. The Kansas Department of Agriculture has given special attention to this subject, and has recently issued a press bulletin giving the experience of a large alfalfa grower of Nebraska, who has 2,800 acres sown to this wonderful clover. His experience is condensed as follows:

PREPARING THE SOIL.

Our land is invariably plowed in the fall, in such a manner as to leave no back or dead furrows, and as deeply as possible, using a subsoiler on all land, the surface of which is more than fifteen feet above the sheet-water that, I am told, underlies the greater portion of Nebraska. The land is left in furrow until all the frost is out of it in the spring. We then go on to it (sometimes as early as February) with a float—an implement made of oak plank. Mine is sixteen feet long. With this we thoroughly crush and level the ground, and follow immediately with a disk harrow, going over the land as many times as may be necessary to perfectly pulverize it, with the wheels set straight in order to pack the soil as much as possible. I am so particular about the preparation of the soil that in some instances the land is disked five times. After disking, the land is dragged thoroughly, using four horses on a twenty foot harrow at least once a week on the average or after each rainstorm. This is done to prevent evaporation of the moisture which is so necessary to the growth of all vegetation, and especially this plant.

SEED PER ACRE.

Based upon the result of many tests, I invariably use twenty pounds of seed to the acre, sowing with a Cahoon seeder, ten pounds each way; that is, ten pounds to the acre is sown crossing the field in one direction, then reseeding the same land with ten pounds to the acre, crossing the field at right angles to the first sowing. I never sow oats or other grain with the alfalfa seed now, as my experience has been that the alfalfa plant requires all the moisture available in this section, and cannot afford to share this very necessary requisite to its growth with any nurse crop. The seeding is completed between April 10th and May 15th. As experiments I have seeded every month in the year, and found that the best results followed early seeding, as the young plants then receive the benefits of the spring rains.

WHAT KINDNESS WILL DO.

About the middle of June, or sooner, if the weeds are large enough to shade the ground (with us the sunflower and redroot are quite rank by that time), I mow the land, leaving the weeds to dry where they fall, as they make a very fine mulch for the alfalfa. In four or six weeks more, according to the growth of the weeds, I mow again, leaving the weeds on the ground as before. This has given me in two instances a crop of alfalfa in September of the year of seeding, although generally I have got no hay crop until the second year.

My first seeding was in alternate strips of eighty acres, one strip with one bushels of oats to the acre and the next

strip without the oats. The stand on the strips sown without the oats is to day more than twice as heavy as on those sown with oats. Two or three times since I have seeded small areas with oats, and once with barley, only to find the same result.

BLUE GRASS WITH ALFALFA.

Hereafter, when the alfalfa is old enough so its roots are relying for their support entirely upon the soil below that which the blue-grass roots will penetrate, I intend sowing blue grass upon all my alfalfa fields, as this will do away with the danger of bloat that has heretofore existed in pasturing alfalfa, having observed that the cattle eat liberally of the blue-grass before eating any of the alfalfa, which prevents them from consuming sufficient of the latter to injure themselves. Also, when there is a wet spring and a heavy crop of blue-grass, we invariably get a much finer quality of hay than when we have alfalfa alone.

CUTTING AND CURING.

My experience is that it should be cut as near as possible when in full bloom. Having so large an area, this necessitates cutting a portion of mine before it commences to bloom at all. No cutting is done in the morning until the dew is off, that the alfalfa may fall upon well-warmed ground. The men are employed before that time in cultivating other crops. As soon as the hay is thoroughly wilted it is raked into small windrows, from which it is gathered, later by buck-rakes into stacks. As a rule, there are three men on the stack, four men on the buck-rakes, one man to attend the stacker, and a boy to guide the team used with the stacker. There is a large loss of leaves attending this process, and had I a small area the hay would be gathered as I was taught to cure red clover in New England, by cocking it and letting it cure in the cock, after which it was immediately hauled to the barn that it might not get wet. As it is, what hay will be necessary for the dairy cows and breeding ewes, and perhaps for all of my ruminating animals, will hereafter be cured in the cock, as I am certain that the additional expense will be more than compensated by the increased value of the hay. While there is no more valuable forage for cattle, sheep, colts, or hogs than well cured alfalfa, so also there is no hay which can receive greater damage from wetting. Because of this I will hereafter put as much as possible in barns and sheds. I will put the remainder in stacks which I shall protect with stack covers, which are now manufactured for that purpose.

In regard to the feeding value, there is one thing it may be well for me to tell you, particularly as it is generally understood that alfalfa makes poor horse feed, and so it does for driving horses. In July, 1894, finding myself without old hay or grain, and no corn to be had for less than sixty cents per bushel, I was compelled to depend entirely upon new alfalfa hay to feed some eighty work horses for more than thirty days, during which time they were worked unusually hard, as I was trying to subdue a swamp which was, in many places, very difficult to plow. During this time the horses were maintained in their usual condition of health and flesh, although I believe it better practice to feed some grain, in connection with the alfalfa, to all horses when hard worked. Since that time I have fed all my work horses on well-cured alfalfa, choosing for this purpose cuttings when the plant was passing out of bloom, having learned that there was more protein in alfalfa cut late.

I urge the importance of great care in procuring seed, as otherwise considerable trouble may ensue.

Caring for the Foal

The breeding of a mare to a stallion does not complete the task of raising a horse. It is useless, says the *Western Horseman*, to breed a mare unless she is to have proper treatment immediately following; it is useless to go to the trouble of getting a mare in foal unless you are going to look after the foal after it is foaled. Probably the most critical period of the whole operation is during the first few days of a foal's life, and hence this is the period at which most care should be exercised. More foals die before they are ten days old than die between that period and maturity, and the greater per cent. of such loss is due to lack of proper care and attention. But few persons are so uninformed on the subject as not to expect children to have trouble in "teething," but it is remarkable how few ever give a thought even to the subjects of colts "teething," and yet it is safe to say that more colts die very young from troubles attending "teething" than from most all other causes. Colts, as a rule, can make no satisfactory headway at sucking until their teeth are through, and following this imperfection come irregularities of the bowels, deranged digestion, weakness and death. A very little attention following the dropping of a foal—the sooner the better—will usually suffice to avoid all trouble arising from teething. The only thing necessary is to remove the more or less resisting gum covering from the teeth, and simple as this operation is it is often poorly and ineffectually done. "Cutting the gum," as ordinarily thought of and done, is a fraud and delusion—that is, cutting straight down to the teeth with a sharp knife. Unless the gums are found very tough and resisting, a finger nail is the finest and most practical gum-cutting instrument in existence; simply get the finger in the youngster's mouth and rasp the offending gum away by repeated scratches with the nail the broad way of the teeth, keeping up the operation till the points of the teeth are left bare. Should the gum prove too resisting for the finger nail, take a knife not necessarily sharp, or any other clean instrument possessing something of an edge, and scrape first one way then the other, broad way of the teeth, and in a few seconds the operation is all over and the colt is ready for real business. Do not neglect this matter for several days and until colt is probably past saving, but do it within a few hours after it is foaled. Another important thing: do not change the diet of the dam for some days after foaling, as a change of diet changes the milk, subjecting the foal to the dangers of indigestion and a consequent derangement of the stomach and bowels. Besides these, various other little attention to a foal during its early existence aid wonderfully in its growth and usefulness. All foals should be handled and made to feel that man is their friend and protector; their feet should be looked after and kept even and level. Indeed, it is the little attentions during their early life that add most to the probable future usefulness and value of foals.

Dark or White-Shelled Eggs

It has long been a pet theory on the part of those who happen to be the breeders and owners of birds producing dark-shelled eggs that such eggs are richer and better in every sense than eggs having white shells. A set of experiments has recently been carried out by a thoroughly scientific analytical chemist to test the truth of this theory, and it turns out that if there is any natural difference the advantage rests with white-shelled eggs, so away goes one strong reason for keeping Langshan fowls. These fowls lay the deepest-tinted eggs of any fowls in existence. If they do lay a richer egg than any other fowl it must spring from another cause, and that is concentration, as they lay the smallest eggs of all the large breeds of fowls. It is quite conceivable that it is possible that the smaller class of eggs laid by the larger fowls may be richer, but we have long held the opinion that the principal factor in giving the richness and pleasantness of eggs is the food they eat, and from our own observation the very best flavored eggs are produced by fowls having a free run on heathery hillsides, and no doubt the richness of the flavor is derived from the large amount of insects procurable. The inference, then, is that if you want richly flavored eggs you must take care that your fowls have a fair supply of sound, sweet flesh, for be it remembered that the bulk of animal food

procured in the shape of insects is actually eaten alive, and so are perfectly sweet. That the flavor of eggs can be sensibly affected by the food they eat is proved by the fact that eggs laid by fowls and ducks have access to fish, lay eggs having a strong fishy taste. We have no wish or intention of writing anything to injure the repute of the Langshan fowls or any other laying dark-shelled eggs, as we confess to have a liking for dark-shelled eggs, and we are yet in doubt as to whether any analysis can seize upon the most valuable property of a fresh egg—viz., its flavor Whilst we, therefore, are prepared to adopt the accuracy of the chemist's deductions as to the actual feeding values of the different eggs, we are still inclined to the opinion that small dark-shelled eggs are of richer flavor than the large white-shelled ones, but we also believe that food has the most important part to play, and for the reason that the eggs of hens fed too freely on potatoes are liable to be very much lacking in richness of flavor. The plain lesson from these remarks (which remarks are based on facts) is that if you wish to have richly flavored eggs you must feed rich and varied food, a fair amount of which shall be sweet, animal food.—*Scottish Farmer.*

CORRESPONDENCE

Dawson's Golden Chaff the Favorite

To the Editor of FARMING:

1. Clover sod plowed once and thorough surface cultivation before sowing.
2. No. Land rich enough without.
3. On rich soil about the second week in September; if very dry, earlier. On poor soil, the last week in August.
4. Dawson's Golden Chaff.
5. My own, unless I can get better.
6. About 15 bushels per acre.

I have no fall wheat this season.

G. A. BRODIE.

Bethesda, Ontario Co., Ont. July 31st, 1899.

Clover Sod Ploughed and Well Cultivated the Best

To the Editor of FARMING:

1. A good clover sod turned under and the surface disced or cultivated. When a good catch of clover has been obtained take off one crop of hay and let the after growth continue till near the end of August, then turn it under and prepare the surface for wheat. This can hardly be excelled where the pure clover has been sown mixed with no other grass seed.
2. It will not pay. They cost too much.
3. First week of September and not later than the 10th.
4. In this locality "Surprise" does fairly well. Taking an average of a number of years Clawson has given the most uniform results.
5. Farmers usually change seed. I do not consider it advisable to sow the same seed on the same farm year after year.
6. Pretty hard to estimate. Cutting has just commenced, and the crop is so badly winter killed that only a fringe of wheat is left around the fields, which in most cases the centre is sown with barley or some other crop the yield, therefore, can hardly be correctly estimated but will be very small.

What little wheat there is will be of good quality.

G. C. CASTON.

Craighurst, Simcoe Co., Ont., July 24th, 1899

Corn Ground with a Dressing of Manure

To the Editor of FARMING:

Regarding the information you desire about growing fall wheat I would suggest that the best preparation for fall wheat is shallow cultivation of corn ground with a top dressing of manure.

2. We have never used commercial fertilizers.
3. The best time for sowing is from the middle to the end of September.
4. We get the best results from Red Classon and Dawson's Golden Chaff.
5. We usually use our own wheat for seed.
6. The yield for 1899 will be about ten bushels per acre.

Hoping this will be of some benefit to you.

W. C. MCGREGOR.

Tilbury, Kent Co., Ont., July 29th, 1899.

Sept. 1st to 10th the Time to Sow

To the Editor of FARMING:

In answer to your circular of July 24th re fall wheat question I beg to answer as follows from my own experience:

1st. I consider that a good clover sod ploughed in the fall and sown in the spring with peas is the best.

After the peas are off cultivate the ground thoroughly about 3 or 4 inches deep, and after a week or so cultivate again and harrow thoroughly, and then sow the fall wheat with a drill—about 1 bushel and a peck or between that and a half to the acre. This is, in my opinion, the best way for ensuring a good crop. Of course I am considering that the land was in good order to commence with.

2nd. I have never used commercial fertilizer on fall wheat, as I consider there is nothing better than barnyard manure, and always sow plenty of clover on all your land.

3rd. I have had the best results sowing from September the first to the tenth.

4th. I have had good results from nearly all kinds for a few years at first, but find that it is very important to change seed.

5th. I always purchase new seed every few years and do not sow my own over two or three years.

6th. The yield for 1899 in this county will be about an average, say 23 bushels to the acre—slightly rusted—too much wet weather the cause. The County of Bruce has fared better with the fall wheat this year than many of the older counties. All the crops are good with the exception of peas on low ground which suffered with the amount of rain.

JOHN DOUGLASS,

Tara, Bruce Co., Ont., July 29th, 1899.

Not Much Gained by a Change of Seed

To the Editor of FARMING:

In reply to your questions I would say as follows:

(1) I have always obtained the best results from a summer fallow, and the application of barnyard manure not only for the wheat crop, but also for the following hay crops: Clover sod answers well, and so does pea stubble if the ground has been previously manured.

(2) I have not myself, nor do I know of any o m

neighbors who have used commercial fertilizers on fall wheat, therefore cannot give an opinion on the results

(3) All other conditions being equal, I consider from the 1st to 10th of September as the best time to sow wheat. This year, the wheat I sowed on the first days of last October was better than that sowed on the last days of August.

(4) I myself, and many others stick to the Democrat, but there is a good deal of Golden chaff and some other varieties sown.

(5) If my own seed is good, and I have it threshed in time, I always sow my own seed. I do not think there is much to be gained by the mere change of seed.

(6) I think the yield will not be over 15 bushels to the acre, of rather inferior quality on the average.

The crops in East Missouri appear to be better than they are in most places that I have visited.

E. J. PEARSON.

Kintore, Oxford Co., Ont., July 31st, 1899.

Farm Fences in New Brunswick

To the Editor of FARMING:

Your editorial wishing information about farm fencing having come under my notice, I take this opportunity to answer your enquiries from this section. In this section, owing to its being a new country and cedargrowing, sometimes on the spot and sometimes nearly all the fencing till within a few years has been done with that article, but, owing to its clumsiness and its beginning to get scarce in many places, and beside the inconvenience they cause along the road by snowdrifts, the farmers are beginning to turn their attention to wire, particularly for road fences. And though wire fencing is yet in its infancy in this section, from the extent it is enquired about and talked about between farmers themselves, there is no doubt that there will be a great deal of it used before very long. So little has been used so far that only an approximate idea can be had of its value as a reliever of the snow blockade, but farmers seemed settled on this point, and all are looking forward to renew as circumstances permit with wire.

The system of doing without road fences has been extensively tried in this country, and though you will find advocates for it, the general view is a feeling of insecurity, and in a few years I think you will find it generally abandoned.

Like the section you mentioned, barbed-wire was the pioneer here, but you can find very few advocates of it now, as it has maimed so many valuable animals.

The Wedge Lock Wire Fence has been placed on this market of late, and even when not purchased at the time generally commends itself to the farmer. The size of the wire, the wire all being of equal size and strength, the upright wire as strong as the lateral wire, and its secure locking at the crossing of each wire commended it at sight to the practical farmer, and when it has been tested it has borne any strain put upon it perfectly.

Yours very truly,

Andover, N. B., July 28th, 1899. E. H. HOYT.

Hard Coil Wire Should be Used for Fencing

To the Editor of FARMING:

In reply to the article in a late issue of your valued journal referring to the important question of fencing, I beg to reply in reference to the questions therein submitted:

(1) The kind of fence most in use in this township is the old fashioned rail fence with about six feet angle to each panel. Timber, however, suitable for fencing is very scarce and ere long the rail fence will belong to the past.

(2) Wire fencing is almost exclusively taking the place of rails and if of the proper kind it will meet the requisites of a first-class farm fence.

(3) Where wire fences have been erected they effectually prevent a blockade from snowdrifts.

(4) Fences along the highway, as well as to divide the fields, is an absolute necessity on a farm. No farmer can enjoy a good night's sleep, unless he has good fences to protect his growing crops.

In writing thus of this very important subject, I must be allowed to hint to my brother farmers, that all wire fences are not by any means first class.

Soft wire can never make a satisfactory or enduring fence and barbed wire has many objections. No farmer should build any wire fence unless he uses hard coil spring wire and this should be well supported by stays otherwise a much greater number of posts will be necessary.

Thanking you in advance for the opportunity to make these few suggestions, I am, dear editor, yours truly,

JOSEPH PARK.

Logierait, Ont., July 28th, 1899.

A Suggestion for Farmers' Institute Officers

To the Editor of FARMING:

Would you allow me as a friend of Farmers' Institutes to venture a few suggestions through the columns of your valuable paper? We farmers have, year after year, new men coming to speak to us at our Farmers' Institute meetings with comparatively old subjects. Now, to my mind, we must introduce something new every year to help to keep up the interest. The query is, "How best to do this?" I believe it is to the interests of every live farmer to try and help our indefatigable Superintendent of Farmers' Institutes.

I want to make a few suggestions by which I think interest could be kept up so as to help in a small degree. One is for the officers of Institutes to organize debating classes in the several divisions where Institute meetings are being held. Let the president and secretary of the Institute have the oversight of such organization, after which the directors of each locality can take the lead. Let each class take up some topic of interest to farmers and have some subject in particular prepared for the annual Institute meetings.

As an example of what can be accomplished in this way take the case of the young men of a certain locality who have formed a football team and practice once every week with some other athletic club, and all with the intention of leading up to a big picnic or concert, which they carry out to a grand finish. Such a contest was actually termed by an expert as one of the sights of his life. To see the happy mass of young people who gathered to spend the afternoon and evening in the beautiful grove was indeed a treat.

I quote this to show what can be accomplished by a little forethought and exertion. Now if we to the same extent would exert ourselves in conducting a first class debating club, with the object in view of leading up to our Institute meetings, great good would be done. All we want is for some two or three individuals to take the lead. I believe that here as a class we fail in a great measure to mingle one with the other to the extent that we should. By meeting once a week at our debating class we will overcome this difficulty to a great extent, as well as drawing out our young men and overcoming that bashfulness which prevails to such an extent in every locality. By such means we could get our young men to come out and take part at our Institute meetings, which should be one of the prime objects of the Farmers' Institutes.

In conclusion, Mr. Editor, let me say again that if some few of the farmers would but give this matter just a little

of their leisure and put it into practice we would have much better and more interesting meetings. Above all things, let us be live farmers, and let us keep right abreast with other professions and well to the front in the procession. By so doing we can only take the place destined for the tillers of the soil.

A FRIEND OF THE INSTITUTES.

Carleton Place, North Lanark Co., Ont.,
July 24th, 1899.

Good Results From the Ploughing Under of Green Clover

To the Editor of FARMING

Among the many things of interest seen by the large number of farmers who have visited the Central Experimental Farm at Ottawa during the past few weeks, none have awakened greater surprise than the striking illustrations made this season showing the advantage to crops of the ploughing under of green clover. This is particularly seen in a field of oats of about ten acres. This land in its preparation in the spring was treated the same throughout; the field was all sown the same day with one variety of oats, the Bavarian. Last autumn about eight acres of this field had a good mat of red clover turned under, which was grown from seed sown (10 lbs. per acre) with a barley crop in the spring. One acre was ploughed which had been in Brome grass for two years. One acre, which had been occupied with other pasture grasses for a similar period; and one acre with a mixture of pasture grasses and clover.

Over the whole area where the clover was turned under the increase in the growth of the oat crop is most striking. The difference in the highest part of the grain will average about twenty inches, and the deep green color of the leaves on this part of the field and the vigor of the plants are in striking contrast to the crop on the adjoining land where there was no clover. This remarkable increase in growth, affords convincing proof of the added fertility given to the land by the ploughing under of green clover. In another field, which has been planted with potatoes, a strip of the land covering eight rows of this crop had clover grown on it last year, which was ploughed under. In that strip the growth of the potatoes, as compared with the same variety on the adjoining land where there had been no clover, was quite remarkable, the plants being much larger and more vigorous. The results of the crops in both those instances will be watched with interest.

Last year a like illustration was given on eight plots of land on another part of the farm, on four of which red clover had been sown with grain in the spring of 1897; while on the other four grain was sown without clover. This land was all ploughed in the autumn of 1897 and in the spring of 1898 the whole area was sown with Banner oats. The greater vigor in the growth of the grain where the clover had been turned under was very noticeable quite early in the season and became more striking as growth advanced. These results were brought under the notice of a large number of visiting farmers during the season of 1898. When this crop matured the grain on these eight plots was harvested and threshed separately and the yield per acre on the four plots on which the clover had been grown exceeded that obtained from the plots on which there was no clover by an average of eleven bushels and one pound per acre.

In another field clover was similarly sown, in 1897, in different quantities with grain on a series of plots with three left as check plots without clover. As these were all to be planted with Indian corn they were not ploughed until May 23rd, 1898, by which time the clover had made a heavy growth. After ploughing and harrowing, the corn was planted, and when harvested in the autumn the average crop on all the plots on which not less than eight pounds of red clover had been sown and ploughed under exceeded in weight the average yield of the three check plots on which there was no clover, by four tons two hundred and thirty-three pounds per acre.

WM. SAUNDERS,
Director Experimental Farms.

Ottawa, Ont., July 29, 1899.

Pure Cultures in Butter-making

Their Use by Our Dairymen Strongly Recommended by the Bacteriological Department O.A.C., Guelph

To the Editor of FARMING:

I would like to draw the attention of owners and patrons of creameries and cheese factories to a circular recently issued by this laboratory to the creameries and cheese factories throughout the province.

The circular contains information which will be of service to cheese and butter-makers. It also states that this laboratory is prepared to furnish them at a nominal cost with pure cultures for cheese and butter-making.

There have as yet been very few applications for these starters, more cheese than butter starters having been asked for. There can only be two reasons why this opportunity is not more fully taken advantage of. Either the butter-makers consider that their butter cannot be improved in flavor or keeping quality, or that they are unaware of the advantages to be derived from the use of pure culture starters.

In order to give some information to those who have not been able to give much attention to the subject I have made a few extracts from a recent report of Prof. Conn, of Storrs, Conn., who has recently been inspecting the European dairy methods. As he is, perhaps, the highest authority in America upon the bacterial production of flavor in butter his opinion may induce patrons and makers to make further study of the question:

"It has been proved that the quality of the product is in a considerable degree dependant upon the particular kind of bacteria which may ripen the cream. These facts are well known, but the practical application of them has not been very widely extended in any European country except Denmark and North Germany.

"In Denmark the use of pure cultures has become very common. It is stated that *over 95 per cent.* of the butter made in this great butter-making country at the present time is made by the agency of artificial cultures used in cream ripening. This percentage is surprising, and conveys a very great lesson. Danish butter-makers stand at the head of the profession in the world. Danish butter commands the highest price and has the highest reputation of all butters. The Danes themselves adopt with practical uniformity the use of pure cultures, and the undoubted inference to be drawn is that the use of pure cultures in cream ripening results in uniform advantage."

The conclusions of the Danish Association of Butter-makers is given as follows: "'Butter made with pure cultures is almost always better than that made by the older method. While this is not always the case, and while it is true that some samples of butter made without pure cultures ranks very high there is no uniformity in regard to the grades of the other types of butter, while the butter made of pure culture is of a uniform grade. There has been since the introduction of pure cultured a noticeable and an almost universal improvement in the grade of Danish butter in general.'

"The results of this method of the use of pure cultures in Denmark are of course satisfactory, or the method would not be so widely used. It is somewhat more expensive than to make butter without pasteurization and pure cultures, and we may be sure that if the results were not satis-

factory that the prosess would not have been adopted in over 95 per cent. of the creameries."

The starters sent out from the laboratory are identical with those used in Denmark, and with proper care and management should yield equally good results. Patrons should ascertain if their makers are obtaining the highest price for their butter or cheese. If they are not let them make inquiries as to the cause of the lower prices. In nine cases out of ten the fault will be found in the flavor; that is, it is the result of bad or no starters or tainted milk.

In other industries where bacterial organisms are made use of in the production of a manufactured article, such as in bread-making, brewing, etc., those establishments which use the pure culture system are superseding those which adhere to the old unreliable methods.

The pure culture method is not a mere scientific theory, it is nothing less than a business-like method of producing a standard and uniform article. No man expects to obtain a clean crop of wheat if he sows seed which contains half a dozen kinds of seed, and he can no more reasonably expect to obtain butter or cheese with a uniform flavor if the cream has been ripened with undesirable bacteria.

Canadian cheese has obtained the position it now holds in the British market because in its manufacture accurate technical knowledge and sound business principles have been used. At present the farmers' institutes in the States and the dairy associations in Australia, New Zealand and the States are taking up the subject of dairy bacteriology far more energetically than are the dairymen of this country; it is especially desirable, now that the effects of cold storage are being so closely watched by the British buyers, that everything that can have an improving influence upon our food products should be taken advantage of to the fullest extent.

It must not be supposed that pure starters will compensate for carelessness or neglect in any part of the process of butter making. Milk or cream once tainted or changed by the action of injurious bacteria cannot be made to give good butter or cheese by any treatment. The greatest benefit can be derived from the use of pure cultures only when the cream or milk is ripened by the bacteria contained in the starter; this, as a rule, necessitates pasteurization. However, great improvement can be made by taking precautions as to cleanliness and the employment of low temperatures while handling the milk, the starter being added as soon as the cream is set to ripen.

MALCOLM ROSS,
Fellow in Bacteriology.

Ontario Agricultural College, Guelph, Ont.,
July 29th, 1899.

Ships Cheese Every Week. Quality Improved

To the Editor of FARMING:

Your favor of the 26th inst. received and also a copy of FARMING. I note what you say about the use of Formalin in preventing mould on cheese; I have not had any experience in the use of Formalin, but some of the exporters in Montreal have tried something of the kind and they say it worked well.

In regard to the sub earth ducts I don't know of any factories that have put them in. For my own part I have been shipping cheese every week, and any warm weather we have had has done the cheese more good than harm.

I have had no experience in using ice in curing-rooms, but think it would have good results if it were properly managed.

You ask for my opinion in regard to the quality of cheese made this season. As far as my knowledge and experience goes I think on the whole we have made finer cheese this season than we did in 1898. As a rule we are making our cheese softer than we did formerly.

WM. EAGER.
Cheese Manufacturer.

Morrisburg, Ont.,
July 31st, 1898.

Ice in Curing-Rooms

Good Results Obtained at the Tavistock Cheese Factory—An Improvement in the Quality of the Cheese

To the Editor of FARMING:

Replying to yours of yesterday's date I would say that my experience with Formalin as a preventive for mould on cheese has been very limited, having only used one bottle last year. I must say, however, that I was disappointed in the results, having been led to believe by some who advocated its use that once or twice spraying would effectively check the mould. We did not find this to be the case in our experience; the cheese would still keep moulding. However, we considered it a help at the time. Probably, as Mr. Barr has said, we did not use enough or use it often enough. We have not used any this season. Our cheese has not shown much mould, and we have just rubbed it off in the old fashioned way.

I have noticed this season in our locality a decided improvement in curing cheese, chiefly by using ice to control the temperature. We are using it, and I am pleased to say that we are very well satisfied indeed with the results, having been able, in the very hottest time, to keep the temperature down to about 70°. I have not had any experience with sub-earth ducts. There are none being put in that I am aware of in this district. They are a good thing, I have no doubt. As far as I have been able to judge, the quality of the cheese in our district is better than last year.

A. T. BELL.

Tavistock, July 27th, 1899.

Preventing Mould in Cheese; Ice in Curing-Rooms

To the Editor of FARMING:

I received your letter of the 26th inst. asking me if I had had any experience in using Formalin to prevent mould on cheese. I have never used it myself, but have seen it used. Some say it is no use. I think the trouble is that the makers do not use enough of it to kill all the germs. I have been in Mr. Barr's factory at different times this summer and there is no mould on his cheese and there is a different smell in his curing-room from that of any other factory that I have been in; you could hardly tell that there was cheese in the curing-room if you did not see them, it had such a nice, clean, sweet smell.

In regard to curing cheese I find quite an improvement in the curing-rooms. Nearly all are putting in ice-boxes and have been controlling the temperature of the room fairly well so far. Makers are all anxious about keeping the temperature right and I think it is a great help to the cheese trade to have finer cheese. As to sub-earth ducts there are none in operation in this section so I cannot say anything about them just now. Using ice in the curing-room seems to be all right, excepting that the cheese is more inclined to mould which is the only objection I have to make to its use.

In regard to the quality of the cheese; so far the quality has been fine, the best for years. Everything has been in its favor, good grass, good water and cool nights. In so far as the makers are concerned in the making of the cheese they are not improving as fast as they might. During this last week gassy curds have been more common in some factories.

GEO. MCDONALD,
Dairy Instructor.

Bluevale, Ont., July 29th, 1899.

The Farm Home

A Carefully Regulated Dietary.

By Mrs. S. T. Rorer.

It is the constant working out of new problems like these that keeps up our progress. Forty years ago an agricultural college, such as I am now within, would have been the laughing stock of the whole country. Imagine one of the oldtime farmers, who thought the only thing that ever could be in the line of farming was a simple rotation of crops. The constant growing of corn in the State of Illinois, from the same soil and even without fertilization, would have startled him. Look over the country; study the training tables carefully under the care of our various colleges, and watch the muscles of the teams. Do you think for a moment that Cornell won the race against Harvard because her men were better trained? No. They probably were more sensibly fed; their physiques were better without a doubt, even if their structures were smaller. A little change in the diet of an athlete will produce most marked results. His assignments will be carried out with less fatigue, less strain on the body, and less serious after results than the man who simply loads himself with nitrogen, wins, and takes the after consequences. In nature's arrangement, which, of course, is the perfect idea, there is a storehouse in the body for fuel, a safeguard against freezing or rapid starvation. The resutls of both are much the same—the reducing of the temperature of the body below the point necessary to sustain life. In the summer, growing around us, we find large quantities of succulent vegetables. Upon examination, we find these vegetables to contain salts and acids necessary for our comfort and the cooling of the blood. In the winter we have an entirely different supply, and still even educated people will can tomatoes, peas and succulent vegetables growing in the summer and eat them in the winter, as though nature had made a mistake, which they must correct; a very expensive way too of living, not only from a money standpoint, but from the stondpoint of physical economy. Such people are obliged to wear sealskin sacques and heavy fur coats; they are constantly reducing the temperature of the body, and so must wear a non-conducting material to keep the little warmth they have, within. Those who buy canned goods are unthinking indeed. Take, for instance, a can of peas; analysis shows it to contain, we will say, a little mineral matter, about a teaspoonful of sugar and a pint of water,for which you pay eighteen to twenty cents; at the rate of about five dollars a pound for poor nourishment.

We have dwelt upon the necessity for a carefully regulated dietary; of equal importance is the care of the body. The excretory organs must always be kept clear. The skin,being one of the most important of these, makes a daily bath of cold or warm water, according to the constitution, an absolute necessity. There is little danger of taking cold if the skin is kept in good healthy condition, all excretory organs open and clear, with a properly arranged dietary. The weather may be what it pleases,and the changes severe, you are prepared for it.

Mending Tinware.

It is not always convenient to mend tinware, or always even feasible, but there are times when it is almost imperative to have a utensil to use, and we find that a tiny hole spoils its utility. For the one who lives in town this does not signify, for it is very easy to get the utensil mended or to buy a new one, as the case might be, for tinware is so inexpensive in these days that it hardly pays to get it mended. There is a kind of soldering material on the market that claims to do its work without an acid, but this is not always just what it is said to be. I have tried it, and certainly with a very unsuccessful success to use a contradictory phrase. It is a simple matter to mend with a soldering iron, although to one unaccustomed, and who does not know just the *modus operandi*, it seems like one of the black arts.

The first essential is a soldering iron weighing about two pounds; the next essential is an acid, which is made from muriatic acid with zinc dissolved therein. A nickel's worth of the acid is enough for a start, and this should be put into a wide-mouthed bottle; into this bits of zinc are dropped and allowed to dissolve or be eaten up; these are added until the acid will not act on any more, and then it is ready for use. This is very corrosive, and should be kept carefully out of the reach of the inquiring fingers of little folks, and it should always be used with respect, care being taken not to get it upon the flesh or upon the clothing, as it will eat either one with great avidity. A stick of solder is the next requisite.

The tin should be scraped till it looks bright, all soot or dirt, or foreign matter being removed. Having the soldering iron heated, dip it into clear water, then on the stick of solder. If the solder does not stick, then file the iron a little; this may roughen it enough to make it hold the solder. A few trials will show you just how to manage. Having the iron heated, and so it will hold the solder upon its end, the leak is brushed over with the acid and the solder applied. This will, or should, run freely and cover the hole immediately. This sounds like considerable work, but it really takes very little time in the operation and it is well worth while to learn this simple method of mending one's tinware. I said a two-pound soldering iron, but one of lighter weight would do.—*Rose Seelye Miller.*

Eggs as Food.

Would it not be wise to substitute more eggs for meat in our daily diet? About one third of an egg is solid nutriment. This is more than can be said of meat. There are no bones, no tough pieces that have to be laid aside. A good egg is made up of 10 parts shell, 60 parts white, and 30 parts yolk. The white of an egg contains 66 per cent. water, and the yolk 52 per cent. Practically an egg is animal food, and yet there is none of the disagreeable work of the butcher necessary to obtain it. The vegetarians of England use eggs freely; and many of these men are 80 and 90 years old, and have been remarkably free from sickness. Eggs are best when cooked four minutes; this takes away the animal taste, which is so offensive to some, but does not harden the white or yolk so as to make them difficult to digest. An egg, if cooked very hard, is difficult of digestion, except by those persons possessed of stout stomachs; such eggs should be eaten with bread and masticated very finely. Fried eggs are much less wholesome than boiled ones. An egg dropped into hot water is not only a clean and handsome, but a delicious, morsel. Most people spoil the taste of their eggs by adding pepper and salt. A little sweet butter is the best dressing. Eggs contain much phosphorus, which is supposed to be beneficial to those who use their brains much.—*Exchange.*

"Can you tell me what sort of weather we may expect next month?" wrote a subscriber to the editor and the editor replied as follows: "It is my belief that the weather next month will be very much like your subscription." The inquirer wondered for an hour what the editor was driving at when he happened to think of the word "unsettled." He sent in the required amount next day.

Unavoidable delay—"It's three-quarters of an hour since I ordered that turtle soup," snapped the angry guest at the restaurant.

"Yaas, sah," said the waiter, with an obsequious bow, "but de turtle done make his 'scape, sah, and dey had to chase him 'bout a mile, sah."—*Detroit Free Press.*

Freckles and Sunburn.

Of the approved remedies for these affections of the skin, what is efficacious for one is not always for another. Freckles caused by the sun are often removed by moistening a little saltpetre with water and applying with the finger or small brush three times a day. An excellent wash to be used several times a day is a saturated solution of borax and rose water. A good freckle lotion is made of half pound ox gall; half drachm each of camphor and burned alum, one drachm of borax and two ounces of rock candy; mix and shake well several times a day for three weeks until the gall becomes transparent, then strain. Apply during the day, and remove at night.

A teacupful of milk, into which has been stirred a tablespoonful of grated horseradish, is an old-fashioned remedy highly recommended; another is to bathe the face with milk into which has been sliced as many cucumbers as it will cover. Let stand an hour or two; apply, leave until quite dry, then wash in soft water. Boil and skim half pint of new milk, mixed with the juice of one lemon, a tablespoonful of brandy and one drachm of alum. Use when cold.

Those who freckle easily will find the following efficacious: Glycerine, half ounce; one ounce each of lemon juice and rose water, and a pint of powdered alum. A mixture of lemon juice and glycerine, to be applied directly after bathing the face, is excellent

Sunburn.—Avoid the use of water; if any is used let it be quite hot. Apply carbolized vaseline to relieve the smarting sensation. Glycerine and carbolic acid is also good. Both should be prepared by a druggist. Cold cream is recommended but it does not act as quickly. It is an excellent preventive. After the soreness is removed wash the face in hot milk and dry on old, soft linen.

Recipe for Cold Cream.—Mix in an earthen dish, with a silver spoon, over gentle heat ½ oz. of white wax, 1 oz. of spermaceti, and 9 tablespoonfuls of almond oil. When melted add 1½ oz. of glycerine, and 5 drops of any preferred perfume. Beat, as it cools, until snowy white. Apply twice a day a mixture of 1 oz. of dilute spirits of ammonia, 2 oz. of glycerine and 3 oz of distilled rain-water. To ½ pint of oat meal water add 1 oz. of carbonate of soda and ½ pint of milk.

The sensibility of the skin varies in different persons. If any of these preparations cause much pain or uneasiness, reduce the strength by the addition of rain water. Magnesia wet to a paste with rain water will often quickly remove tan. Apply it, let remain from three to five minutes, remove with warm soft water and castile soap, rinse in lukewarm water and rub with a soft towel until dry.—*Orra.*

Farming.

A PAPER FOR FARMERS AND STOCKMEN

Farming is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance.

Postage is prepaid by the publishers for all subscriptions in Canada and the United States. For all other countries in the Postal Union add fifty cents for postage.

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Advertising Rates on application.

Letters should be addressed:

FARMING,
CONFEDERATION LIFE BUILDING,
TORONTO.

QUESTIONS AND ANSWERS

CUTTING AND CURING THE CORN CROP.

To the Editor of FARMING:

I was pleased to see the article in last week's FARMING *re* hydro lactic cream separators. Such information is useful.

I am growing six acres of corn (Compton's Early) for husking. It is the first I have ever grown or have ever seen grown in this part and I would like some information about the curing, harvesting, husking, etc. Any information on the subject would no doubt be thankfully received by the general public, and I am sure it would be by me.

J. G. JULIAN.

Castlemore, Ont., July 28th, 1899.

The best way of preserving corn in large quantities for winter feeding is in the silo, and we would advise our inquirer if he has any large quantity another year to build one. When corn is grown for husking purposes it should be cut when the corn in the ear has reached the glazed stage.

The best way to cut corn for husking is to take a pole or two by four scantling, and at one end nail on the sides opposite each other two braces about four feet long so that the ends are a couple of feet apart when set on the ground. These will raise the end of the pole a few feet from the ground. About four or five feet from the raised end bore a half-inch hole through the pole so that an iron rod four feet long can be run through easily.

With this contrivance, which we may call a truss, the corn can be cut with a sickle or a sharpened hoe with a short handle and put in shock quite readily. When commencing to cut take this truss and place it between two rows of corn with the rod across about eight feet from the end of the row. Then begin cutting and stooking the corn by placing it in an upright position in each of the corners made by the rod and the pole of the truss. When a sufficient amount of corn has been set up to make a stook, tie it about a foot from the top of the stalk with binder twine or good oat straw. When tied pull out the rod and carry the truss further down the row and begin in the same way to make another stook.

The height which the truss will need

to be from the ground will depend upon the height of the corn. It should stand high enough so that an armful of corn set up against it will not tumble over. We have known corn to be cut by a harvester the same as other grain, but do not think the plan a good one for the machine used.

The husking may be done in the fall when the corn is in the field, or during the winter when the corn is in the barn. When there is time for it the former practice is the better one, as it gives a chance to get the stalks in shape for winter feeding early.

The great difficulty when there is no silo is to preserve the stalks in good condition for feeding. If put in large quantities in the bay of a barn the stalks will not keep and will soon spoil. A good plan for preserving the stalks is to place a long pole or stakes about four or five feet from the ground. Then begin at one end by standing up the bundles after husking in rows on each side of this pole, leaning the tops against it. When one row on each side is complete get two balls of binder twine and begin running the twine through about a foot from the top of the pole between the bundles and pulling tight on each side. This will keep the tops together and will keep the whole secure. To get the ends of the twine through between the bundles take two pieces of broom handle about a foot or two long and to one end fasten the end of the twine by running it through a small gimlet hole. A pole set up in this way will stand about four rows of bundles on each side, and, if the twine is used as described, the tops of the corn stalks will be brought close together and will prevent the rain from going through. In order to prevent the butts of the stalks from freezing to the ground or becoming wet it is good plan to put a foot of straw on the ground where the corn is to stand.

Stock Notes.

PEDIGREE SHEEP FOR CANADA.—On Saturday last, the 15th of July, Alfred Mansell & Co., live stock exporters, Shrewsbury, shipped per the SS. *Montcagle*, Elder-Dempster Line, from Bristol a choice consignment of 53 Shropshire and other breed of sheep to Mr. John Campbell, of Woodville, Canada. The shipments comprised animals of the highest merit, including several of this season's prize-winners at the leading shows selected from the flocks of Mr. H. Williams, Mr. Alfred Tanner, Mr. A. E. Mansell, Mr. M. Williams, Mr. S. Nevett, Mr. Geo. Foster-Harter, Mr. R. Brown and Mr. Wilkinson; Hampshires, Oxfords and Border Leicesters represented the flocks of Lord Rothschild, Mr. Henderson, M.P., Lord Polwarth and Mr. Stilgoe, and as a lot they were remarkable for quality and high individual merit, and should help to maintain Mr. Campbell's reputation as an importer of the highest class of English pedigree stock.

MANITOBA STOCK FOR ONTARIO.—It is not often we have to record the purchase of purebred stock in Manitoba and the West by Ontario breeders. But such a purchase has been made as the following item from the Winnipeg *Free Press* will show:

"Mr. Jas. Yule, of the Prairie Home Farm, Crystal City, left for the East on Wednesday, having in charge three noted heifers, 'Jubilee Queen,' 'Freda,' and 'Gem of Athelstane,' recently purchased by Captain T. E. Robson, of Ilderton, Ont., at a very handsome figure. While in the East Mr. Yule will try and se-

cure some good Ayrshires. After harvest he goes to Scotland in search of Shorthorns. The report that the celebrated Shorthorn bull, Judge, was sold to Mr. Watt, of Salem, Ont., is erroneous. Judge still remains at the head of the herd at Prairie Home."

J. H. JULL & SON, Mount Vernon, Ont., whose advertisement appears in this issue writes us as follows: "Oxfords Downs are doing well although the long drought has shortened pasture, in fact, everything seems dried up until this week we had two fine showers so that you can see a greenness over the fields. We have a fine bunch of ram and ewe lambs from our two imported rams. We will attend the leading fall fairs und have sent a full set of fitted show lots to Ohio to be exhibited at all leading shows in that State and several single ones to other parties. Call at sheep pens Toronto or London Exhibition Grounds and inspect our stock.

JOHN CAMPBELL, Fairview Farm, Woodville, Ont., reports that his importation of Shropshires will arrive at its Canadian quarters about the 13th of August. The fifty coming, with the hundred on hand, make up the largest and best all round lot hitherto seen at Fairview. As he handles the surplus from several customers' flocks in his vicinity who have purchased their foundation ewes from him, and have used rams of his importing or breeding, parties wanting good, well-bred sheep at a medium price can be well suited. For breeders wanting specially good rams or ewes the Fairview flock, so carefully bred for nearly twenty years, reinforced by a very excellent lot of imported rams and ewes, furnish material to please the most critical breeders. An exhibit will be placed in the pens of the leading fairs. Till then customers are welcome to inspect for themselves at Fairview Farm, and at the fairs the owner will be pleased to give all possible attention to seekers of high-class Shropshires. The show lot of thirty will not disappoint any one wanting to see or purchase strictly choice Shropshires.

Publishers' Desk.

Mr. A. Lemire, of Wotton, Que., will exhibit his celebrated stone and stump lifter on the grounds at the Toronto, Ottawa, and London Fairs. Look it up.

Common Sense.—The Common Sense Exterminator is recommended by high authority. The *American Journal of Health* gives it the first place amongst the various preparations for the extermination of vermin. One of its most important qualities is its safety and is entirely harmless to human beings.

The Agricultural Gazette

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

VOL. II. No. 43

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

Annual Membership Fees:—Cattle Breeders' $1; Sheep Breeders', $1; Swine Breeders', 2.

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 Associations allowed to register sheep at 50c. per head, while non-members are charged $1.00.

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, to advertise sheep he must be a member of the Dominion Sheep 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.

F. W. HODSON, Secretary.
Parliament Buildings, Toronto, Ont.

Institute Memberships.

The following is a list of the Institutes from which names have been received since the last list published:

Bruce South	1
Carleton	1
Haldimand	1
Hastings East	1
Middlesex East	3

Will Tuberculous Cows Recover?

Chas. D. Woods, Director, Maine Agricultural Experiment Station, Orono, Me.

For over six years the Station has been studying tuberculosis from different standpoints. In the fall of 1895 a herd of ten cows and heifers that had reacted to tuberculin were placed in quarantine in a specially constructed stable at a distance from other buildings in order that the study of the progress of the disease might be extended over considerable periods of time. The stable was light and well ventilated, the cattle were well fed and cared for. In summer they had the run of a small pasture with feed in the barn when it was needed. In winter they were not confined to the barn, but were turned out in a sunny yard during the middle of the day when the weather was such that they could be comfortable out of doors. The stable was well ventilated, and the animals were not forced to production. Without using any elaborate or extraordinary means the endeavor was made to keep the animals under as healthful conditions as possible.

When placed in quarantine none of the animals showed physical symptoms of being diseased, but on the contrary were as thrifty and vigorous looking animals as could be found anywhere. They were considered diseased simply because they had reacted to the tuberculin test. A thorough physical examination failed to reveal any symptoms of disease aside from a slight cough in the case of two or three of them, and these did not cough any more than many other cows that were free from tuberculosis so far as it could be revealed by the tuberculin test. While different experiments and observations were made upon this herd it may be interesting to note what effect, if any, the good hygienic conditions under which the herd was kept had upon recovery from tuberculosis, or holding the disease in check. The animals are referred to here by number in the order in which they were slaughtered.

No. 1 reacted to tuberculin August 13th, 1895. She was killed January 15th, 1897, at which time she had been diseased nearly one year and a half, although the disease had made little advance. Tubercular lesions of the right lung and two mediastinal glands were found. She had never exhibited any physical signs of disease; at the time she was killed she was decidedly fat. Two guinea pigs inoculated from her died from tuberculosis.

No. 2 was killed February 27th, 1897. It had been over six months since she had reacted from tuberculin, but she had been coughing for over a year, and had not been as thrifty as the rest of the herd. The autopsy revealed only a small area of diseased lung and two large lymphatic glands.

No. 3 was killed June 17th, 1897, in an advanced stage of tuberculosis.

No. 4 was killed July 1st, 1897. She was very much reduced in flesh and weak, and the autopsy revealed a large amount of tuberculous growth, but it was all apparently of recent growth. Three weeks before she was killed lesions of the lungs were detected by physical examination.

The other six animals of this herd were killed October 12th and 14th, 1897, and the following conditions were noticed:

No. 5 had always been apparently well, except that she reacted to the tuberculin test. The only lesions found were in two lymphatic glands, and they showed very slight evidence of disease. Guinea pigs inoculated from these glands and killed after nine weeks showed no evidence of disease. All the evidence we have, therefore, would seem to indicate that this cow had recovered from tuberculosis.

No. 6 had always seemed well except for a difficulty in breathing which had been noticeable for six months before she was killed, and a cough which had been troubling her for over three months. The autopsy revealed lesion of the lymphatic glands and a few small tubercles scattered through both lungs. The lung tubercles had cheesy centres, and were evidently of recent growth.

No. 7 had never shown symptoms of the disease except a slight unthriftiness. The lymphatic glands and both lungs were tuberculous.

No. 8 had always been well; the only lesion found was one cheesy mediastinal gland.

No. 9 had shown no symptoms of disease, the only lesion found was in one mediastinal gland.

No. 10 had always appeared to be well. Two mediastinal glands were enlarged and cheesy.

In his report Dr. F. L. Russell, the Station Veterinarian, sums up these cases as follows:

"A study of these cases shows us, that, kept under exceptionally good conditions as these cattle were, five of them kept the disease in check, so that it made practically no advancement. In the case of three others, but little advancement was made, while in two cases the disease had nearly reached a fatal termination when the animals were killed. On the whole we cannot see that the exceptionally good care that these animals received had any effect on the progress of the disease. It may have retarded the progress of the disease, but if so the fact is not sufficiently clear to lend much weight to the argument that tuberculosis can be successfully controlled by simply maintaining animals under good hygienic conditions. Twenty per cent. of deaths is probably as high a percentage as one could reasonably expect among ordinary tuberculosis herds kept under poor or only fair hygienic conditions, if to begin with all cases that presented any physical symptoms of disease were removed."

Cucumber Blight.

Bordeaux Mixture a Sure Preventive.

During the past few years the culture of cucumbers for pickles has become an important industry in certain sections of the state. Last year, however, the losses due to "blight" were so severe that many growers became discouraged, and the area devoted to this crop will be reduced. The "blight" referred to is caused by the downy mildew which first made its appearance in the United States in 1889. It occurs quite generally throughout New England and the Middle States and as far west as Ohio. In localities where it has previously occurred, it may be expected to reappear the present season; and the range of its occurrence is likely to be extended. The amount of damage done by the disease depends very largely upon the condition of the weather during July and August. Hot and moist or "muggy" weather will induce rapid growth of the fungus; while, if the weather is dry and cool, much less trouble will follow.

By carefully conducted experiments in the cucumber fields of Long Island, it has been proved beyond question that Bordeaux Mixture is an effective preventive of the disease. Spraying should be commenced when the plants first break through the ground and repeated at intervals of ten days through the season. Formula in "Condensed Directions for Spraying the Apple," and the same formula in "Condensed Directions for Spraying the Potato" is the right one to use for the cucumber blight. If Formula 3 is used it will be found effective for the striped beetle as well as for the cucumber blight.

The above directions will be sent free on application.—*Maine Experiment Station.*

Scotch Dialect.

The *Scottish American* has a story of a north country servant girl, who was living with an English family in the neighborhood of Oxford.

One wet day she happened to step into a heap of mire and returned home with her clothes much soiled.

"What have you been doing?" asked her mistress.

"O," said she, "I steppit into a humplock o' glaur."

"And what's glaur?"

"Just clairts," said the girl.

"But what's clairts?"

"It's just clabber."

"But, dear me! What's clabber?"

"Clabber is drookit stour."

"But what is drookit stour?' insisted the amazed lady.

"Weel, weel," said the girl, "'ave nae patience wi' ye ava. Ye sud ken as weel as me, it's just wat dirt."

Just for Fun.

Gentleman (to an Irishman)—"Well, Pat, I see you have a small garden."

Pat—"Yes, sir."

"What are you going to set in it for next season?"

"Nothing, sir. I set it with potatoes last year and not one of them came up."

"That's strange; how do you explain it?"

"Well, sir, the man next door to me set his garden full of onions."

"Well, had that anything to do with your potatoes not growing?"

"Yes, sir. Bedad, them onions was that strong that my potatoes couldn't see to grow for their eyes watering."—*Answers.*

Pat (who has been acting as guide, and has been pointing out the Devil's This and the Devil's That for the last two hours)—"An' that's the Devil's Punch-Bowl, yer 'Anner."

Tourist—"The Devil seems to own a good deal of property around here, Pat!"

Pat—"Ye're roight, yer 'Anner. But, loike most av the other landlords, he spinds most av his toime in London!"

An Irishman was tossed over a fence by a bull. Recovering from his fall, he saw the bull pawing and tearing up the ground. Whereupon Pat, smiling at him, said: "If it was not for your bowing and scraping, and your humble apologies, you brute, faix, I should think you had thrown me over the fence on purpose."

Dr. Abernethy, a famous Scotch physician, was extremely averse to being called after he had retired for the night. One night his bell was vehemently rung.

"Hurry, doctor!" cried the man. 'My son has swallowed a mouse!"

"Tell him to swallow a cat, and let sleeping men alone," roared the doctor, as he slammed the door in his visitor's face.

Market Review and Forecast

Office of FARMING,
Confederation Life Building,
Toronto, August 7th, 1899.

There has been considerable excitement in Montreal during the past two weeks, caused by the suspension of the Ville Marie and Jacques Cartier Banks. But the excitement has now calmed down and the general commercial situation has assumed its normal aspect and confidence fully restored. Wholesale trade continues steady although quiet, with values as a rule well sustained. Money seems ample for all commercial purposes and there are circumstances which would seem to indicate that money is not as tight as it was a month ago.

Wheat.

The wheat markets as a rule continue dull and inactive. The English markets have ruled dull, with values about 3d. per quarter lower, owing to liberal arrivals from the United States. Prices have fluctuated somewhat on the Baltic, but on the whole prices are lower. Reports from the crops continue favorable, and it is expected that the spring wheat crop on this continent will be equal to if not better than a year ago. It is not safe, however, to be too confident until the crop is harvested and threshed, which will be a month or two yet. Some late advices from Australia and France show that the crop in these countries will be at least equal to last year.

The supply of wheat in sight seems to be gradually getting larger. The world's supply in sight is now double of what it was a year year ago at this time or 68,852,000 bushels against 32,453,000 bushels in 1898. The supply in sight in the United States and Canada is now 36,852,000 as against 9,093,000 bushels a year ago. These large supplies in sight makes the market appear in favor of the buyer. However, it must be borne in mind that at this season of the year there is always a speculative element in the market whose chief business seems to be to bear the market as much as possible.

Prices here have not changed much during the week. Very little is doing at Montreal except in an export way with Manitoba wheat. The offerings here are light and the demand light. Ontario red and white is quoted at 67 to 68c. north and west, and goose 67 to 68c. Some new red wheat is reported sold west at 65c., but it was a poor sample. On the Toronto farmers' market red and white is quoted at 70c., spring fife at 66c., and goose at 66 to 68½c. per bushel.

Oats and Barley.

The English market for oats has been dull, but towards the end of the week a better feeling prevailed, though excessive ocean freights prevent any great advance in prices. The prospects for a big oat crop both in this province and Quebec are excellent. They are quoted at Montreal at 32c. afloat. On this market they are quiet and 28c. west is about the ruling figure. On the Toronto farmers' market oats bring 36½ to 37½c. per bush.

The barley market is nominal and is quoted here at 40 to 41c. west.

Peas and Corn.

The market for peas both in England and on this side continues dull and inactive. Prices here are nominal at 67c. west. On the Toronto farmers' market they bring 60c. per bush.

Corn is also quiet, both here and Montreal. American is quoted at 41 to 42c. on track, Toronto.

Bran and Shorts.

A good demand continues from the American mills. Ontario bran is quoted at Montreal at $13 to $13.50, and shorts at $14.50 to $15.50 per ton in bulk lots. City mills here sell bran at $14 and shorts at $16.50 in car lots f.o.b. Toronto.

Eggs and Poultry.

The egg market is firm both in Canada and in Great Britain. Cable reports show an advance of 3d. per 120 both at London and Liverpool. Exports, so far, show a falling off of 12,496 cases. The eggs arriving at Montreal from west of Toronto are reported of very good quality, but from points East they require a lot of culling. The Montreal market keeps firm for fresh stock, which sells fairly well at 14½c. per dozen in large lots. The offerings have been larger here, with prices steady at 11½ to 13½c. wholesale. On the Toronto farmers' market new laid eggs bring 15 to 17c. per dozen.

On the Toronto farmers' market, chickens fetch 40 to 80c. and ducks 50 to 80c. per pair, and turkeys 10 to 11c. per lb.

Potatoes.

The quality of the new potatoes coming to Montreal is reported as good, though some little complaint is heard of the rot. Prices there are 85 to 90c. per barrel in large lots. The market here is steady at 60 to 70c. per bushel wholesale. On the farmers' market potatoes bring 75 to 80c. per bag.

Fruit.

Fruit at Montreal has been fairly active through the week, with no material changes in prices. Receipts here have been large with trade at following quotations: Raspberries 6 to 8c., black 5½ to 7c., and Lawton berries 6 to 7½c. per box; red currants 30 to 40c.; black currants 50 to 70c.; cherries 70 to 90c.; peaches 25 to 35c.; gooseberries 30 to 70c.; plums 50 to 75c.; apples 15 to 35c. and blue berries 60 to 80c. per basket.

Reports from the English and Scottish apple crops are good. There is a good early crop which is considered large enough without any shipments of early fruit from Canada. Of late the shipment of this early fruit has had a bad effect upon the market for winter fruit.

Hay and Straw.

The Quebec hay crop has been harvested in good condition and a large supply of No. 1 quality is looked for. Prices for old hay have been 50c. per ton higher at Montreal owing to very little coming out. But as cable reports are lower it is not expected that this advance can be maintained. Quotations for baled hay are No. 1 old, $8.50 to $9, and clover $5 to $5.50 per ton in large lots. The market here for baled hay is steady at $8 to $8.50 in car lots on track, and baled straw at $4.50 per ton. On the Toronto farmers' market old hay brings $9.50 to $10.50; new $7.50 to $8.50; sheaf straw $6 and loose straw $4 to $5 per ton.

Wool.

At Montreal the market for foreign wool is firm and the price higher. Canadian greasy held there is quoted at 14 to 16c., fleece at 16 to 17c., and pulled at 18 to 20c. per lb. Prices here for Ontario wool continue the same at 13 to 14c. per lb. for fleece and 8c. for unwashed.

Cheese.

The cheese situation continues strong and active with prices fully ½c. over last week's quotation. One of the striking features in the situation which largely accounts for the upward turn of the market is the small accumulation of stocks both on this side and in Great Britain. Stocks are small everywhere and with a shrinkage in the make owing to dry weather and short pasturage in many localities the outlook for good fall prices is very bright. The English make is smaller than a year ago and with business brisk for the workingman more cheese is being consumed. Exports from Montreal so far this season show an increase of over 91,000 boxes, and from New York of 7,000 boxes which with the addition of nearly 4,000 boxes via Portland, makes the total increase from this side over 102,000 boxes as compared with the same period of 1898.

The local markets have been somewhat quiet so far as actual business is concerned; factorymen though offered from 9½ to 9¼c. were inclined to wait awhile. At Brockville on Thursday all offerings sold at 9⅜c. per lb., and at some of the others sales were made at 9½ to 9⅝c. Montreal quotations are, finest Westerns 9⅜ to 10c., finest Easterns 9⅝ to 9¾c., and undergrades 8½ to 9½c. per lb.

Butter.

The foreign demand for Canadian creamery butter this season seems to be phenomenal. A stream of orders has continued to come to Montreal from the very beginning of the season. Over 20,000 packages went forward from Montreal last week, and the total shipments so far this season show an increase of 56,000 packages over those for the same period a year ago. But notwithstanding this large increase the market keeps firm, the demand good, and prices continue to advance. The London, England, market is 2s. to 3s. per cwt. higher, some choice Canadian creamery having sold during the week at 96s. to 97s., and well-known fancy brands have been placed at 98s. to 99s., one lot bringing 100s. per cwt. English consumers this year seem to have given a decided preference to Canadian butter and seem willing to pay good prices for the right quality. Sales of fresh creamery have been made at Montreal during the week at 19½ to 20c. per lb., and it is reported that some Eastern Township factories have sold at 20½c. per lb. These figures are ½ to ½c. above last week's quotations.

There is also a good demand for dairy butter at Montreal, and sales are reported at 14½ and 14¾c. to 15 and 15½c., the latter figures for selected lots. Creamery here is quoted at 18½ to 19c. for prints and 17½ to 18c. for boxes and tubs. The best dairy is quoted at 13 to 14c. for tubs and 14 to 16c. per lb. for lb. rolls in large lots. On the Toronto farmers' market lb. prints bring 17 to 19c. per pound.

Cattle.

The general tone of the cattle market is about the same as a week ago, though a little lowering of values has taken place. Both at the American markets and here medium cattle are dull, and only the best finished butchers' and exporters' are in good demand at steady prices. At some of the American markets buyers show a preference for light weights. Receipts on Toronto market on Friday were large and trade slow, with a decline in prices for medium butchers' and exporters', while the best grade were steady. The bulk of shipping cattle sold at $4.60 to $4.80 per cwt. The quality of the cattle offered was only middling, there being a very large number of only medium quality.

Export Cattle.—Choice loads of heavy exporters sold at $4.75 to $5 per cwt. and light ones at $4.30 to $4.60 per cwt. In only one or two cases was over $5 per cwt. paid.

Butchers' Cattle.— Choice picked lots of these, equal in quality to the best exporters, and weighing 1,000 to 1,100 lbs. each, sold at $4.25 to $4.40 per cwt. Good butchers' bring $3.80 to $4.10, and inferior to medium $3 to $3.50 per cwt.

Stockers and Feeders.—Prices for the better grades of stockers were firmer on Friday, while common were weaker at $2.50 to $2.75 for heifers and inferior steers, and $3 to $3.25 for medium, while well-bred steers of good quality sold at $3.30 to $3.50 per cwt. Light feeders bring from $3.60 to $3.75, for those 800 lbs. in weight, and heavy one 1,100 lbs. each bring $4 per cwt.

Calves.—The demand for calves at Buffalo is moderate with supply fair. On this market on Friday prices were easy at $3 to $6 each of general run.

Milch Cows.—The bulk offered were of poor quality, which sold at $25 to $45 each for inferior to medium.

Sheep and Lambs.

The demand at Buffalo for choice sheep and lambs has been fairly active and the offerings have been cleaned up pretty rapidly. On Toronto market on Friday export sheep were firm at $3 25 to $3.60 and a few choice lots at $3.75 per cwt. for ewes, and bucks at $2.50 to $2.75 per cwt. The delivery of lambs was heavy and too many of inferior quality that should have been kept longer were offered. Prices were easy at $2.50 to $3.50 each or $4 to $4 50 per cwt.

Hogs.

Deliveries of hogs on Friday were light and prices were firm at $5.25 per cwt. for select bacon hogs of good quality, weighing 160 to 200 lbs. each, unfed and unwashed (off cars), and $4 50 per cwt. for thick and light fats. The Montreal market keeps firm at an average price of $4.75 per cwt. It is reported that many hogs are being shipped past Toronto to Montreal, where, it is claimed, the average price is better and there is not so much culling. The English bacon market continues firm and active, as the *Trade Bulletin's* London cable of August 3rd shows. It reads thus: "The market for Canadian bacon is firm and higher, values having advanced fully 2s per cwt., and at the advance there is a good healthy demand, but holders are very conservative in their offerings, owing to limited supplies. Canadian hams are also doing well."

The 1899 Fall Fairs.

Industrial	Toronto, Aug 28 to Sept 9.
Central Canada	Ottawa, Sept 11 23
Western Fair	London, Sept. 7 16
Stanstead Live Stock	Stanstead, Que., Aug. 21 24.
Eastern	Sherbrooke, Que., Sept 1 9
Kingston	Kingston, Ont., Sept. 11 14
New Brunswick Provincial	St John, N B., Sept 11 20
Bay of Quinte	Belleville, Ont., Sept. 13-14
Eldon Agricultural Society	Woodville, Ont., Sept. 14 15.
South rn	Brantford, Ont., Sept. 16 21.
Northern	Walkerton, Ont., Sept. 19 20
Central	Guelph, Ont., Sept. 19 20
Great Northern	Collingwood, Ont., Sept 19 20
North Oxford	Woodstock, Ont., Sept 21 22
Nova Scotia Provincial	Halifax, N.S., Sept. 23 30.
Central	Peterborough, Ont., Sept. 26 28.
Ontario and Durham	Whitby, Ont., Sept 27-28.
South Waterloo	Galt, Ont., Sept 28 29.
North Perth	Stratford, Ont., Oct. 3 4.
East York	Markham, Ont., Oct 4-6.
South Norwich	Otterville, Ont., Oct. 6 7
Norfolk Union	Simcoe, Ont., Oct. 1 7-19.

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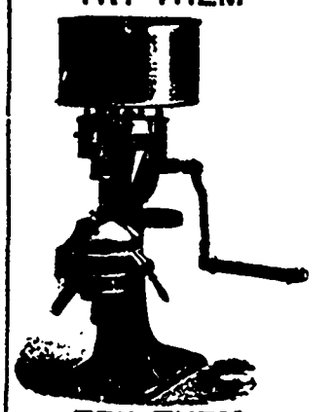

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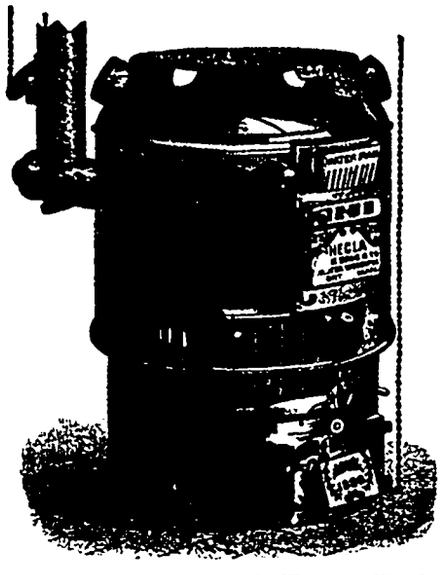

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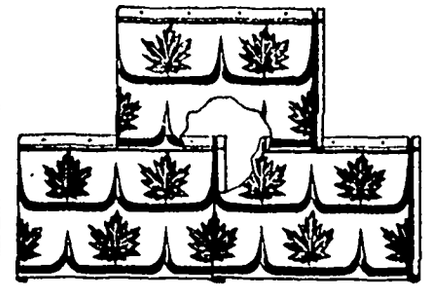

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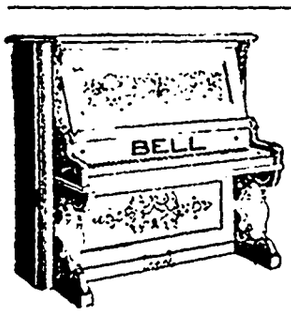

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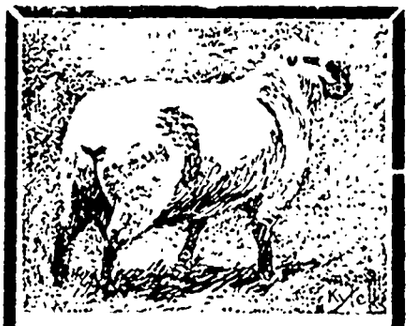

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