Toronto, May 28, 1901



THE FARMING WORLD



The Farming World

For Farmers and Stockmen

VOL XVIII

MAY 28th, 1901

No. 40

The Good Roads Movement



HERE is nothing theoretical or visionary in the advocacy of good roads. No movement that has been inaugurated for the benefit of the farmers of this country has in it

more practical and beneficial results than the improvement of our roadways. Properly made and well-equipped roads that can be travelled on with comfort and ease, at any season of the year, mean money in the pockets of the farmers who are so fortunate as to live on or adjacent to them. They add greatly to the social benefits of rural life, and very much improve the appearance of the country as well as increasing very materially the values of the farms bordering on the roadway. On the other hand, bad roads which become almost impassable at certain seasons of the year, are a serious detriment to the progress, social, or otherwise, of any community. There are thousands of dollars lost to the farmers of this country every year through bad roads. They very much increase the cost of marketing produce, and often the farmer is unable to get his produce to market at all, because of the impassable condition of the roads in the early spring and late fall. But why dwell on this feature of it. The farmer of to-day needs no elaborate argument to show him the necessity of improved roadways, or the great loss he is sustaining every year from bad ones.

Since the inception of the good roads movement in this province several years ago, there has been gradual and steady progress, both on educational and practical lines. This has culminated in the passage of an act at the last session of the Legislature, appropriating $\$_{1,-}$ ooo,ooo for road improvement. Our readers are familiar with the scheme for expending this money. In his fifth annual report just published, A. W. Campbell, Commissioner of Highways, in referring to this appropriation says:

"The object of the present measure is not so much to aid by the gratuitous distributing of money, but has for its aim a nobler purpose. While it aims to encourage the doing of a work which is acknowledged by all as being an important and necessary service, its prime object is to equalize and lighten the cost. The unfairness and injustice of the present system of taxation for highway construction is so noticeable as to be a matter of wonderment that some step of this kind has not been, ere this, devised by government, or compelled by the people."

The good work already accomplished in this province for improving the highways has had its influence in other provinces of the Dominion. We give elsewhere a brief summary of some recent legislation in Prince Edward Island along this line. This legislation practically means the abolition of the statute labor system and the substitution of what is known as the contract labor system in the Island Province.

The working out of this legislation will no doubt be watched with interest by the advocates of good roads all over the Dominion.

A reference to the statute labor system re-minds one that in a few weeks the farmers in all parts of the country will be called out to put in their allotted days of labor on the roadways. Doubtless the same methods will be followed in performing this work as of old. There will be no definite plan followed in laying out the work. Each pathmaster will look after his own division as he thinketh best, and thus the same variable results will ensue-no uniformity, no permanancy and no definite advancement toward improved roads. Councils, where the statute labor system is still in vogue should, before the work begins, decide upon some definite plan for the guidance of pathmasters. A road-making machine could do good work in every township if properly managed. In this way something in the nature of uniformity may be brought about.

While many of the townships in this province are still clinging somewhat tenaciously to the statute labor system, it is gratifying to know that a transition period has set in. As noted elsewhere, fully 10 per cent. of the municipalities have commuted or partially commuted the system and with very great success. The by-law of the township of Pelham commuting the statute labor system, given in another column, is well worth investigating by township councillors and ratepayers generally. This commu-tation plan may not be perfection, yet it is infinitely superior to the old system, and could be adopted by every township in the province to the general advantage of the roadways and its citizens. The statute labor system is a most expensive one, and does not give permanency or uniformity in road improvement. The value of the statute labor expended on the roadways of this province during the past ten years is estimated at over \$10,000,000, or \$1 for each day's labor performed. Had this amount of labor been commuted at, say 50c. per day, it is pretty safe to conclude that the roadways of this province would be in a much better condition than they are at the present time.

Marketing English Chickens

Valuable Hints for Canadian Poultry Raisers

It is important that our farmers who supply poultry for the export trade should be familiar with the kinds of birds and the quality of product best suited to the English market. Dr. Boultbee, manager of the Canadian Produce Co., has just returned from Great Britain, where he made a study of **the breeds used** in England, and the fresh-killed English chickens as sold on the English markets. He obtained a large amount of information which cannot but be of value to Canadian poultry-raisers, and has kindly sent the following notes on his trip for the readers of The Farming World:

On the English markets chickens generally go by the name of the district where they are raised, rather than by breeds, such as Surreys, Sussex fowl, Bostons, Irish, etc., each only differing in minor points from the others, except in the case of the Irish.

To a certain degree all of these, the Irish again excepted, show some signs of artificial fattening, but I question much if any of them have ever seen a cranning machine, with the exception, perhaps, of a few Surreys, only care and good feeding, along with a short period of confinement, to the extent only of preventing the chickens from taking exercise, being necessary to bring them into market condition.

The strongest point in these chickens, and the one that makes them sell well, is color, they are always white skinned, great stress being laid on the presence of well defined strips of fat on breast and back, and nearly always white-legged. The plucking is always done well and completely clean, not a feather being left on, and they are always young, not a sign of a spur ever being noticeable. The breeds most commonly seen are the Dorking and the Buff Orpington, which seem to be favored because they are compact and short in leg and neck, thereby having less waste, and of the desired whiteness in skin and legs.

These chickens come into market in large wicker hampers, packed in straw, with legs up at each side of breast, and heads out straight, very often they have been put in a press and squared off at tail end, and if the breasts are the least bit prominent, the breast bone is broken and lowered. When they arrive in the retail poulterer's store, they get the finishing touches, such as stubbing, singeing and flouring to make them whiter, and are then laid out on shelves or marbel slabs, breast up, for customers' inspection. Sometimes they are trussed, but that is generally done after selling at the wish of the buyer. This process means dressing the chicken so as to be ready to put in the oven, and consists in cutting off the head and neck as closely as possible to the back, legs at hock, drawing the entrails and crop, placing liver and gizzard under each wing, the wing being folded over on the back as we do here. Sometimes forced meat or dressing, or, as we call it, stuffing, is forced in where the crop was, the skin of the breast and neck drawn well over it on to the back and caught on points of the wings. The thighs are pushed forward and well into the sides, the skin of the sides is drawn over them and kept in place by stitches.

This manipulation makes a wonderful improvement in appearance; and I venture to say that the thinnest and scrawniest can be made to look well by it.

The Irish chicken is treated in the same way as his English brother; but, in the first place, he is in every way a very inferior bird, thin and looking half fed, but besides that, he is dreadfully handled and plucked, causing him to look extremely rough and uninviting.

Now there are certain lessons to be learned from all this, which the Canadian farmer will do well to study and remember, for it is on such grounds that large poultry firms like the Canadian Produce Co., must buy their chickens for export. The desired type of fowl is a low set, compact bird, with white skin and legs. Among the birds we breed in Canada, the best, undoubtedly, is the Wyandotte, followed by the

Plymouth Rock, then the Leghorn, the white birds of each breed being greatly preferable to any other color. But all of these have one common drawback, the yellow legs, so that I can strongly advise and encourage the introduction of what I believe to be the coming breed of bird in this country, the Buff Orpington. This breed is quite as hardy and does as well as any other in our climate, is a rapid grower and flesh producer, but above all, is of proper color in skin and legs, and of compact shape, such as the British market calls for. And after all that is the point the farmer must carefully watch, for in the course of two years at the most, if the present expansion in this line continues, there will be at least one hundred birds exported to every one eaten here.

Lime Water for Preserving Eggs

By Frank T. Shutt, M.A., Chemist Dominion Experimental Farms

The solubility of lime in water at ordinary temperatures is 1 part in 700 parts of water. Such a solution would be termed saturated lime-water. Translated into pounds and gallons, this means I pound of lime is sufficient to saturate 70 gallons of water. However, owing to impurities in commercial lime, it is well to use more than is called for in this statement. It may not, however, be necessary, if good, freshly burnt quicklime can be obtained, to employ as much as was at first recommended, namely, 2 to 3 pounds to 5 gallons of water. With such lime as is here referred to one could rest assur-ed that I pound to 5 gallons (50 lbs.) would be ample, and that the resulting lime-water would be thoroughly saturated. The method of preparation is simply to slake the lime with a small quantity of water and then stir the milk of lime so formed into the 5 gallons of water. After the mixture has been kept well stirred for a few hours it is allowed to settle. The supernatant liquid, which is now "saturated" lime-water, is drawn off and poured over the eggs, previously placed in a crock or watertight barrel.

As exposure to the air tends to precipitate the lime (as carbonate), and thus to weaken the solution, the vessel containing the eggs should be kept covered. The air may be excluded by a covering of sweet oil, or by sacking upon which a paste of lime is spread. If after a time there is any noticeable precipitation of the lime, the lime-water should be drawn or siphoned off and replaced with a further quantity newly prepared.

It is essential that attention be paid to the following points:

1. That perfectly fresh eggs only be used.

2. That the eggs should, throughout the whole period of preservation, be completely immersed.

Although not necessary to the preservation of the eggs in a sound condition, a temperature of 40 degrees F. to 45 degrees F. will no doubt materially assist towards retaining good flavor, or rather in arresting that "stale" flavor so characteristic of packed eggs.

Respecting the addition of salt, it must be stated that our experiments—conducted now throughout three seasons—do not show any benefit to be derived therefrom; indeed, salt appears to impart a limy flavor to the egg, probably by inducing an interchange of the fluids within and without the egg.

New Buildings for the Industrial

On Friday of this week the ratepayers of the City of Toronto will be called upon to vote on a by-law to supply funds for the erection of new buildings for the accommodation of exhibitors at the Industrial Exhibition. As far as we are able to gage the feeling of the citizens in regard to this vote, there is every prospect that the by-law will carry by a large majority. Property owners associations and other interested bodies have recently passed resolutions strongly endorsing the by-law, and there does not appear to be any strong opposition to it from any quarter. Last week the Canadian Manufacturers Association, through its President and Secretary, issued a strong appeal to the citizens showing urgent reasons why the money asked for new buildings should be granted. They advised the making of a special effort this year, when so many visitors from abroad are expected, and in doing so paid the following tribute to the agricultural the following tribute interests of this country:

"In the matter of live stock of all kinds and agricultural products these departments of the Toronto Exhibition will undoubtedly be able to challenge comparison with the Pan-American both as to extent and quality."

It is hardly necessary for us to add anything further. Early in the year when the affairs of the Industrial Exhibition were being investigated before a special committee of the City Council, we endeavored to do our duty to this great national show, both before this committee and in these columns. The report of this committee in which the Exhibition Association and its management were exonerated from the charges made against them is sufficient to show that the interests and welfare of the Exhibition were well looked after by its friends. With the erection of a new main building, dairy and arts buildings, which will follow the passing of the by-law, the Toronto Industrial enters upon a new era of progress and development. We quite concur with the views of the management and others who have expressed themselves that a special effort should be made to have the show of 1901, which takes place on Aug. 26 to Sept. 7, next, ahead of any previous effort, and we believe it will be. As noted elsewhere in this issue, Manager Hill is making a strenuous effort, and with every prospect of success, to have the first Exhibition of the new century ex. cel all previous ones. 5

A Good Roads Train

A new feature in the good roads movement is the running of a special good roads train. This train has on board all the latest and most improved machinery for road-making, and also lecturers and instructors, who give lectures and practical examples of road-making at the different points where the train may stop. In this way a large number of people in a wide area may be reached and instructed in the making of good roads in a comparatively short time.

This good roads train idea came into prominence through the Illinois Central Railway. This railway ran such a train over its entire route not long since, free of cost, stopping at nearly all the stations, where experts made roads and talked to the people on the necessity and value of good roads. The same thing is to be tried in the Eastern part of Ontario very shortly. The exact route and the arrangements

are not yet completed. We learn, however, that both the Canadian Pacific and Grand Trunk Railways have fallen in with the idea, and the manufacturers of road-making machinery have agreed to supply the outil free of cost. This movement is being arranged under the auspices of the Eastern Ontario Good Roads Association. A number of experts on road-making and others will accompany this train and give addresses and instruction in road-making at the various stopping points en route.

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Agriculture for Women

Among the interesting papers read at the National Council of Women at London last week was one on "Agriculture for Women," by Mrs. Fitzgibbon, of Toronto. The paper throughout emphasized the necessity of agricultural education for women as a means of improving the farming methods in the older parts of the country, and opening up new lands to agriculture. Among other things she said:

"In advocating agriculture and horticulture for women they were not encouraging a profession, which, to use a popular phrase, would "unsex them." and inaugurate a state of affairs that was undesirable. Agriculture was the basic industry of Canada and for years women had been deliberately educated away from the soil. The mothers and wives of Canadian farmers have, as a general rule, found that life on the farm means drudgery, a monotonous round of duties in a narrow circle, and for daughters, they have felt the need of a wider field. The farm, properly understood, would furnish that wider field, but while we had insisted on having skilled labor in every calling, we had been content to regard farming as a game of hazard, and then wonder why rural life seemed so ungenial as compared with urban life, where, to make a living, skilled labor is insisted upon. What the union was striving to accomplish, was to ask agriculturalists and workers of the soil to bring to that dignified and health-giving occupation the same skill, learning and intelligence as are daily becoming insisted upon in every other profession.

"The affinity between mother earth and the woman was tremendously strong, and with all that had to do with the growth and raising of stock, with the thousand and one living products of earth and nature about the farm, the woman's maternal intuition was to her a most valuable power. If only the power were coupled with a trained business faculty there would have been many less mortgages on Canadian farms in days gone by.

"The writer did not know whether the existing custom followed in the division of property did not have something to do with the desertion of the farm by the woman. Usually at the father's death, the farm was left to the brothers, and the sisters had to shift for themselves, and had they been trained in the practical running of a farm, there was no reason why this state of affairs should not be reversed and the sons left to act as the pioneers in the new world. It would seem also that the federal government would do well to grant small homesteads to the daughters of farmers as well as to the sons, in our new lands in our far West and New Ontario. There was no better pioneer in the world than a well-equipped woman with a taste for the freedom of life in the world in those far-off districts."

Commuting the Statute Labor System

There are about 500 townships in Ontario. Of this number 45 or fully 10 per cent, of the settled municipalities have commuted the statute labor This is quite a large proporsystem. tion, considering that the majority of these charges have taken place during Where the the past year or two. statute labor is commuted a rate of from below 50c. to 75c. per day is levied for each day's labor under the old way, and the moneys received applied to maintaining and improving the roadways on some definite and up todate plan.

The township of Pelham in Welland county has set a good example to the other municipalities in this regard. In a letter to A. W. Campbell, Commissioner of Highways, and published in his annual report for 1900, which is just off the press, Mr. J. C. Crow, clerk, refers to the working of the commutation system in that township as follows:

"To my mind the most noticeable advantage of the new system thus far is the uniformity of width of the roads graded and the evenness and straightness of the watercourses and ditches bounding them. The council laid down very definite instructions in both these particulars and they have been faithfully carried out by the commissioners, with the result that we have many miles of road graded or rounded so that surface water cannot stand on them, ditched so that the water must run away, and withal so pleasing to the eye that comment is frequent both from our own people and travellers passing through. A couple of years more of like experience and our highways (we have about 150 miles of them in this little township, five miles by nine) will hardly be recognized.

"From a dollars and cents standpoint: In 1899, beside the statute labor performed, we raised by taxes and spent on our roads \$950.03. In 1900 having the statute labor in cash we only required taxes of \$779.78, thus saving more than half the price of the new road machine."

As many of our readers are interested in this whole question, we give below the important sections of the by-law to commute the statute labor in the township of Pelham :

1. Upon, from and after the passing of this By-lawall Statute Labor to which any person (resident or non-resident) may be liable in this municipality, shall be commuted at the fixed rate of fifty cents (5oc) for each day's labor; and the amount of each day's labor; and the amount of each day's labor; and the amount of each person's commutation tax shall be added in a separate column opposite each person's name in the collector's roll, and shall be collected and accounted for like other taxes, and shall be kept by the treasurer in a separate account, to be known as "The Commuted Statute Labor Account."

2. The sub-division of the public highways of the township into ninety-

eight Statute Labor Districts, as at present, is hereby abolished, and in lieu thereof the township shall be divided for road purposes into two districts or divisions only (to be as nearly equal as may be) to be known as North Division and South Division; North Division to comprise and include concessions one to seven, inclusive, and South Division the remaining concessions, eight to fourteen, inclusive. The west half of the concession line road which separates these two divisions shall belong to the South Division, and the east half to the North Division.

3. Over each of these two road divisions there shall be appointed a single overseer to be styled for the purposes of this by law a "Road Commissioner," who shall hold office continuously during the pleasure of the Council, and who shall have the exclusive control and management of the maintenance, repair and improvement of all the public roads, streets, bridges and highways in his division, including the township boundary line roads bordering same, in so far as the commutation and other moneys belonging or appropriated to his division will enable him to do, subject always to such written instructions as he may from time to time receive from the Roads and Bridge Committee of his division.

4. It shall be the duty of each of the two Road Commissioners who may be appointed to carry out the provisions of this by law:

(1) To acquaint himself with the best and most modern methods of constructing and maintaining good roads, and advantageously operating the tools and implements with which he may be supplied for that purpose;

(2) To employ, direct and discharge all men and teams he may require to carry on his work;

(3) To begin the annual labor as early in the spring of each year as the cond tion of the roads will permit, and work continuously till the appropriation to bis division is exhausted;

(4) To plane or scrape any of the roads in his division whenever in his judgment they may require it;

(5) To keep the bridges, sluices and ditches in his jurisdiction open and in repair, and the highways free from obstructions, at all times;

(6) To properly protect by railings or otherwise all pits, precipices, deep water, and other places dangerous to travel :

(7) To see that the provisions of the Act to prevent the spreading of thistles and noxious weeds upon highways and road allowances are carried out;

(8) To cause the roads within his division that are used by the public in winter to be made and kept open during the season of sleighing in each year;

(9) To crown or round the roadways in the centre so as to shed the water to the side ditches, the crown on level

roads not to exceed one inch of raise to each foot of width from side to centre; and (10) To perform such other services

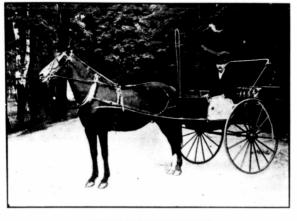
(10) To perform such other services as may be required of him from time to time under the written instructions of the Road and Bridge Committee of his division.

5. All expenditure for road material, tools or machinery, or for jobs or contracts similar to what have hitherto been met out of the general funds of the municipality, shall continue to be met from the same source, to be still known as the Road and Bridge Account, leaving the commuted statute labor moneys of each year to be applied in that year exclusively toward the maintenance and repair of the highways of the township in place of the statute labor which has heretofore been used for that purpose. The total commutation moneys received shall be annually apportioned between and expended in the two road divisions established by this by-law upon the basis of the assessed value of the property in each division, as ascertained from the assessment roll of that year, and the treasurer shall charge each payment made by him to the fund and division to which same belongs as defined by this section.

6. Each commissioner shall keep an accurate record of the men employed and the work done by him under this by-law, and he shall furnish to the reeve in such written form and at such intervals as his instructions may require, properly itemized statements made up from these records and duly certified by him, accompanied by any vouchers pertaining The reeve, upon being satisthereto. fied of the correctness of such statements, may issue his cheque upon the proper fund from which payment shall be made, as per section 5 above.

. In order to remedy the inequalities that at present exist throughout the township in the width of those portions of its highways which are intended respectively for the use of vehicles and of persons travelling on foot, it is hereby further enacted that hereafter the road commissioners, in reconstructing and re-grading any highway, shall aim at a uniform standard width of track or roadway for vehicles of not less than twenty nor more than twenty eight feet (according to the importance of the road) in the centre of each highway between the inside edges of the side ditches, unless the confines or formation of the road is such as to justify a deviation from this rule.

8. Ditches or gutters shall be constructed to drain every highway immediately adjacent to and parallel with the travelled roadway, and separating same from the footpaths set apart by the next section. Every side ditch shall be of such width and depth as its capacity may require, and shall have an outlet to which the water will flow freely, and not to be held to soak into and soften the foundation of the travelled roadway. The inside edges of all ditches shall be lined true and straight, and the sides evenly sloped. province of Prince Edward Island, down by the sea, to take the initiative in the passing of a Provincial law that practically does away with statute labor within its boundaries. The Act,



AN OUTING IN HIGH PARK, TORONTO.

In this picture is shown one of the beautiful driveways for which this Park is celebrated.

Shoulders must not be allowed to form next to the roadway.

9. All those portions of every highway outside of the side ditches or both sides thereof (whethe: the ditches as at present constructed or as they will be when made in accordance with this by-law) shall be and the same are hereby set apart as footpaths or walks for the convenience or use of persons travelling on foot; and it shall not be lawful for any person to travel thereon on horseback or in wheeled vehicles drawn by beast of burden or propelled by steam or electricity, under a penalty of not less than one dollar, nor more than five dollars and costs, to be recovered before any Justice of the Peace in the county.

10. A day's work for all persons engaged by the commissioners under this by-law shall consist of ten hours' faithful service, exclusive of the time spent going to and coming from work, but payment in all cases, except upon job and contract work, shall be by the hour. The remuneration to each of the two commissioners shall be fifteen cents for every hour necessarily de-voted by him to his duties hereunder, and to the operators of the grading machines twelve and a half cents per hour ; all others in the employ of the commissioners shall be paid such price per hour as may be agreed upon with the commissioner. The commissioners shall include a memo. of their own and their employees' time in the statements to be furnished to the reeve under section six above.

The Movement in Prince Edward Island.

Though Ontario is the pioneer in the good roads movement in the Dominion, it has remained for the little

which brings about this change is known as the Public Roads Act, of 1901, and which became law about the beginning of the present month. The general feature of this legislation is that the statute labor system in the province is abolished and a contract system put in its place.

Each county in the province is divided into two road divisions, a road inspector is appointed for each of these divisions at a salary not to exceed \$250 per annum; whose duty it is to oversee the roads in his district, to let contracts for road making, inspect all roadways at least twice a year, and in a general way supervise all expenditures of moneys in his division. He shall also divide his division into precincts and appoint an overseer for each precinct. The duties of the overseer shall be to report to the inspector, nonperformance of duty by contractors, to look after immediate repairs when necessary, to supply a list of all persons and horses entitled, to pay the tax for road purposes, and in a general way look after the roadways in his district, under the inspectors direction.

All men over 21 shall be liable to a tax of 75 cents, and all horses over three years of age to a tax of 25 cents each. The receipts from this source will be applied to maintaining roadways, bridges, etc. Provision is made for special work to be done during the winter and when the neccosity arises by the ratepayers in keeping the roadways clear of snow, etc. Contractors are obliged to engage men in the district where the work is performed.

There are a number of other features of this legislation that might be interesting to Ontario readers but we have not space to deal with it further here

Man is the only animal that blushes -or that needs to.

Father—Who prepared this pudding?

Mother—(looking at her daughters in succession)—I musn't tell—the author desires to be anonymous.

"Pa, what is a political croaker?"

"Well, he's a man who believes the country will go to the dogs if he doesn't soon get into a good fat office.—Detroit Free Press.



OAK LODGE BIRNIE

A Scotch Collie, recently imported by Brethour & Saunders, Burford, Ont. He is an extra good specimen of the breed and recently won three first prizes at Brantford Kennel Club show. His sire was a notable winner at the Birmingham show in 1897.

The Dehorning of Cattle

The Advisability of This Practice Discussed by Breeders and Others

Some weeks ago we received an enquiry asking us to secure the views of breeders and others on the question of dehorning cattle. Dehorning has been practised in this country to a greater or less extent for a number of years. As far as we are able to judge, the general consensus of opinion seems to be that dehorning is advisable where a number of cattle are being fed or cared for in small enclosures, but that on breeding stock it should not be practised, excepting in cases where an otherwise good animal becomes cross or hard to manage, when the removal of the horns becomes a necessity.

However, in order to comply with the request of our correspondent, and to get direct information on this question of dehorning, we submitted his enquiry to a number of breeders and cattle feeders, and have had several replies, some of which we publish herewith. Before giving these, however, a short account of an experiment conducted at the Central Experimental Farm, Ottawa, in feeding steers deherned and otherwise might not be out of place.

The object of this experiment, which was conducted by Prof. Grisdale, was to gain some information as to the exact cost of dehorning steers in loss of flesh due to the excitement, loss of blood and pain caused by the operation. The steers, forty-two in number, all two-year-olds, were placed as follows:

Lots Nos. 2 and 3 of nine steers each were tied in two rows (one lot in each row) facing each other. Lot No. 4 of nine steers was loose in a box stall, 36 feet by 16. Lot No. 6 of nine steers was tied in a box stall in a separate building, and lot No. 7 of six steers was loose in a box stall, 24 feet by 14.

Lots Nos. 3 and 4 and half of lot 7 were dehorned on November 16. The saw was used on six of them, three in each of lots 3 and 4, the Keystone clipper on six more, three in each of lots 3 and 4, the large double-action straight cut clipper on six more, three

in each of lots Nos. 3 and 4, and the single-action straight cut on three in lot No. 7. The dehorned cattle, as well as those in lot 2 were weighed daily for a time.

Prof. Grisdale summarizes the results of this experiment as follows :

"While no positive conclusions may be reached as to the exact cost of dehorning, it would appear from a comparison of lot two with lot four and of the dehorned part of lot seven, with the hornless part of same lot, that no great set back is suffered by steers from this operation. It was observed that nervous irritable individual animals were much more affected than sluggish phlegmatic ones. It must be remembered that all these steers had just been stabled, and so would, of course, be making very little progress in any case during this period. A time of change is a time of loss, or at best, rest. No great difference was observable in the effect of the different instruments in dehorning, save that there was practically no blood lust where the saw was used. One animal in lot three, dehorned with the Keystone clipper, lost a great deal of blood, but in no other case was there serious bleeding."

NOT FAVORABLE TO IT.

Prof. G. E. Day, Ontario Agricultural College, writes :

" Regarding the dehorning of cattle, I may say that my personal experience has not been such as to encourage me in the practice. My experience has been mainly with steers when they came in in the fall for feeding ; and I have noticed in many instances steers which made no gains, and, in fact, sometimes lost weight during .he first month after being dehorned. This, of course, is a very serious loss, and is equivalent to increasing very materially the price per pound at which the steers are purchased. Other steers, however, seemed to suffer no inconvenience.

"As to dehorning breeding animals, I have had very little personal experi-

Lot.	Treatment.	GROSS WEIGHT OF LOTS.					
		Nov mber.					Decem- ber.
		16	17	18	20	28	5
2 3 4 6 7 2	Tied, not dehorned Fied, dehorned Loose, iehorned Tied, not dehorned 3 dehorned steers loose with 3 hornless steers	8905 8655 8340 7700 2420 2730	8715 8470 8300 Not weighed.	8525 8370 8270 Not weighed.	8595 8360 8315 Not weighed.	8580 8415 8400 7825 2350 2752	8915 8630 8540 7865 2395 2795

ence, as our herd in the Farm Department consists mainly of pure-bred stock kept for educational purposes, and, therefore, we do not care to dehora them."

DEPENDS UPON OBJECT IN KEEPING CAITLE.

J. W. Widdifield, Uxbridge, Ont., writes :

"The circumstances peculiar to each individual stockman will determine the advisability or otherwise of dehorning his cattle. If beef or dairy products are the objects sought for, and these the chief source of revenue from the stock, then we would certainly advise dehorning, and the advantage will be to a great extent in proportion to the time the animal is to be retained in the herd, the short lived steer, and the dairy cow with a working period of several years, being the two extremes.

"Where, however, the revenue is derived from the changing of ownership of the animals themselves for breeding purposes, the case assumes a different aspect. There is so much in the horns of an animal indicative of what he really is that without the horus he is to a certain extent an unknown quantity. For this and other obvious reasons I think the practice will never be in favor with breeders of pure bred stock. From the humane standpoint the practice certainly has everything in its favor."

ADMIRABLE WHEN FEEDING CATTLE.

H. C. Graham, Ailsa Craig, Ont., writes :

"I have not practised dehorning in my own herd, but have fed steers that were dehorned, and I believe that in feeding cattle loose in boxes that they should always be dehorned, as then the weaker steer has practically the same chance as the stronger one. They require very much less room when dehorned, as they will feed as closely together as they car. stand, and will also lie down as would a flock of sheep."

WOULD NOT DEHORN BREEDING STOCK.

Mr. S. Dyment, Barrie, Ont., says: "For the best class of steers, in-

tended for feeding and shipment, I would advise dehorning, but for females and breeding stock I would not think of doing it."

LARGELY PRACTISED.

H. I. Davis, Woodstock, writes:

"I would say that dehorning is very largely practiced by the leading dairymen of Oxford county, and has proved to be a great advantage, especially when watering stock at a trough or when keeping a number of animals in a small enclosure."



Ideal Farm Homes

The perspective view and floor plans presented with this article give you a good idea of our design No. 6. One of the striking things in the perspective view is the fact that this house stands up high, and this is not a bad idea, no matter what sort of a location you have to commence with. If it is on a hill your house stands up the higher, and it is no particular objec-



1st Floor Plan.

tion. If your land is flat and you have no particular elevation upon which you can set your house, it is a great point in favor of a design which allows the house to stand up so that the door of the living rooms is considerably above the level of the ground.

Here is a house of eight rooms, with all the rooms square, pienty of closet room, and with good facilities on the lower floor for throwing the rooms together, making a pleasant as well as convenient house. The porch here is only on the front of the house, but that could be very easily extended around either side of the house, according to the desires of the owner, who would naturally govern himself by the points of the compass. We must say that we are decidedly in favor of plenty of porch room. It is a shelter from storms in winter, and it is a great shelter from the sun in summer.

We have said that these rooms are square, but perhaps we will have to take back a little of that, as the two front rooms down stairs are not exactly square; that is to say, there are two corners in them that are disturbed, one by the vestibule and one by the grate. However, the little break in these rooms is not objectionable; in fact it helps, and especially in the parlor, if you want to make the room more artistic. The bath-room is on the second floor. This may not be usual with the country house, but many like it better, thinking that it is always best to have the bath-room near the chambers and away from the kitchen and dining room.

The house itself makes a very neat

appearance, but, as we have often remarked, the appearance of a house can be greatly assisted by the sur-roundings. The handsomest house that could be built would lose a great portion of its beauty if the surroundings did not correspond. In size this house is 24 feet wide and 36 feet long, exclusive of porches, and can be built for about \$1,800. The blue prints consists of cellar and foundation plan, first and second floor plans, roof plan, front, rear and two side elevations, wall sections and all necessary interior details. The price of these blue prints, with a complete set of typewritten specifications, is \$4, and they can be had at the office of THE FARMING WORLD.



and Floor Plan.

The Sugar Beet World

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

EDITED BY JAMES FOWLER.

ONTARIO BEET SUGAR ASSOCIATION. OFFICERS FOR 1901.

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Sugar Beetlets.

Cultivation.—Cultivation should begin as soon as the plants sh.w the drills distinctly enough to be easily followed, when the surface should be thoroughly stirred to kill the young weeds. The young beet plants must not be covered.

Distance Between Beets in Row.— From six to ten inches—eight inches on an average gives a satisfactory crop. There is but little difference in the weight of the crop when the beets stand six, eight or ten inches apart. At twelve inches apart the beets are apt to attain an undesirably large size.

Thinning.—This may be begun as soon as the plants have gotten big enough—when they have four leaves and may be extended over a period of two weeks. More care must be exercised as the plants get larger to avoid injury to the remaining plants.

Variety.—Strains of Klienwanzlebener and Vilmorin probably take precedence. The Lion Brand, Mangold and Zehringen have given excellent results

Ripening — This will vary with time of planting, soil, season and treatment of crop.

Effects of Manuring.—The percentage of sugar and coefficient of purity are lowered a little the first season by the application of manure, but the crop will be increased more than enough to compensate for this. Only well-rotted manure should be applied.

Transplanting.—Our experience is that they cannot be advantageously transplanted.

Yield.—The average crop for Ontario should be 15 tons per acre, ranging from eight to thirty.

Percentage of Sugar.—The average percentage will probably not be far from r_3 per cent. in the beet, not in the juice.

Drying Out.—This causes an increase in the percentage, but a loss of sugar. Effects of Freezing.—Freezing alone is not injurious, but freezing and thawing injures the beets for sugar making.

Fodder Value of Trimmings.—The trimmings make an excellent fodder. The fresh tops, however, are apt to have a laxative effect.

The Value of the Beet Pulp.—The dry matter in the beet pulp is of rather more value, pound for pound, than the dry matter from the fresh beet. The pulp as obtained from the silo contains 90 to 92 per cent. of water. Slight fermentation is said to improve the pulp as a fodder.

Relation Between Size and Sugar Content—As a rule medium-sized beets are richer than either small or large beets. By medium-sized beets is meant such as weigh from one to two pounds. Large beets, weighing from two to four or eight pounds, or even more, may be as rich in sugar and have as high a coefficient of purity as beets of one pound or less, if grown under the same conditions.

The American farmers have learned that they can raise as fine sugar beets as Germany, and that the sugar manufacturers of this country have learned that they can make these beets yield the highest grade of pure sugar.

The people of the United States use more sugar per capita than any other people in the world. They eat over $z_1, 000, 000$ tons yearly, or about 63 pounds for each man, woman and child. More than half the supply is from sugar beets.

Rotation of crops had not attained the perfection in its methods prior to general beet cultivation. A root crop, as it was once understood, meant almost a surface-working of the soil as compared with deep sub-soil ploughing as now practised. The cereal that follows sugar beet in the rotation gives heavier yields than was once thought possible.

Variation in the Quality of Beets.

No issue is more difficult to handle, from a farming standpoint, than the extreme variations of sugar contents of beets grown by farmers. With the same seed, and apparently upon the same soil, four or five per cent. in the polarization are of frequent occurrence. This is explained by the varied compo-sition of the soil. The beet for its development requires a special percentage of plant food ; when (urnished in excess, the roots will lavishly absorb the salts, and these will subsequently exert their influence during the period of sugar elaboration. The main effort of a farmer is to adopt some means of rendering his soil perfectly uniform, then these variations in the quality of beets need no longer be dreaded. We could cite numerous cases where this has been accomplished, but the laboratory necessarily plays an important role in the wo k to be accomplished. Almost mathematical data can now be had of just what is needed in the way of chemicals to produce superior beets, providing, however, that the soil possess certain physical characteristics, and that the seed used be of the best variety. If the tiller could only grasp the facts as they are he would be less prone to entertain the idea that undue advantage is being taken of him by the manufacturer. Farmers should remember that if they wish comparable results in the analysis of beets, the analysis must be made under exactly the same conditions as regards temperature and days after harvesting. If the chemist allows the beets to remain several days in the laboratory the roots wilt, the percentage of sugar in the juice under such circumstances is necessarily higher than when the conditions continue to remain perfectly normal. We have frequently recommended that farmers should combine and have their own chemists who use the factory methods of analysis, rather than depend upon the work being done in the laboratory of an experiment station or of an agricultural college -Sugar Beet.

Instructions for Beet Growers.

The Illinois Sugar Refining Company, through Prof P. G. Holden, superintendent of the agricultural department, has sent the following directions to beet farmers:

Rich ground, a good stand and prompt attention at the right time will insure good profits from the beet crop. Ground cannot be too rich for beets. Feed lots, second or third blue grass pasture, and, better still, ground covered with barnyard manure, are excellent for beets. A good stand is essential to rich beets and a large yield. A



thin and uneven stand means large, overgrown beets, poor in sugar, and a light crop. You cannot prepare the ground too well. Generally a much better seed bed can be prepared by double disking the ground before plowing. Do not plow ground and leave it exposed to the sun and wind to bake and lose moisture, but thoroughly fit, and plant as fast as plowed while the ground is fresh and moist to the surface. This insures quick germination of the seed, which must be planted shallow-never over one inch deep, and one-half to threequarters of an inch is better.

Use the roller and disk freely in the. preparation of the ground to secure a firm, solid seed bed. This is important.

Best results are obtained by planting from the 18th of April to the 1st of M1y. Do not wait to finish plowing the entire field before planting, but fit and plant each day's plowing. This gives a fresh seed bed with plenty of moisture to germinate the seed, thus insuring a good stand; it will also better distribute the work of bunching, thinning, etc. Thoroughly remove cornstalks, rubbish, etc., from the field, and do not plow deeper than the ground has previously been plowed.

Preparing Soil for Beets.

BY ALFRED KLANOW, HOLLY, COLO.

It is a pity to see farmers work on a heavy soil with a plow suited only to light soils. If the ground is in medium wet condition it turns the earth, but in the event the ground is somewhat too wet or too dry, "it won't plow," is the standing answer given by farmers. And to be sure such plow cannot be expected to do good work on heavy loams or clay soils, for it is only built for sandy ground.

As there is a difference in soils so ought there to be a difference in implements meant for working these soils. For a heavy soil use heavy implements and for a light soil take light ones.

This applies in most cases to harrows. The lever harrow is a good implement to work up the ground after it has been thoroughly pulverized, to give it the finish. But there is needed in the implement market a tool to be used between the plow and the lever harrow. This ought to be heavier than the latter, but built on the same principles.

Our agricultural stations issue bulletin after bulletin, stating how crops of varoius kinds turned out, and the sugar beet is spoken of as doing well under certain conditions. The farming population takes all these matters for granted, and whether a farmer has worn-out ground or not, he acts according to these reports, ignoring every conclusive experience from his former crops. If he raises sugar beets on an exhausted soil, and the yield of the crop is far behind his expectations, he blames the beet sugar company, and the agriculturist in particular, for the failure of

his crop, although the treatment of his ground was such as to explain for itself the poor returns from same.

An effort is made now a days from every factory to introduce fall plowing But fall plowing alone is not enough to insure success in beet growing.

Fall plowing is only an improvement of the physical condition of the ground and of the top soil especially. The depth of plowing ought to be regulated by the composition of the subsoil, so that it will not be impoverished by deep plowing. Plowing should be done in conformity to the nature of the beet, that is, to give it enough porous ground. To overdo this will mean disaster, for tap and lateral roots have their offices destined by nature, and any alterations will be followed by failure of the crop.

Where is there a man who can take out of the ground crops year after year and not replace those substances most needed for plant food without ruining his land? Even a virgin soil rich in mineral and organic matters will not stand the strain of robbing very long. The ground should always be kept full of plant food.

To keep the ground in good condition it is necessary above all things to have enough stock to produce manure and to make use of all the by-products from the ground. That means, first, enough teams to handle the cultivation: second, cattle, and, last not least, the necessary help according to the acreage under cultivation.

Light vs. Heavy Seeding.

Mr. L. L. Wilson writes to the Michigan Farmer as follows :

Heavy seeding is invariably recommended by the agriculturists of the sugar companies and by the seed agents. Mr. P. G. Towar, of the Lansing Sugar Co., makes a special point in his recommendation to Mr. Lillie, of the importance of using a large quantity of seed. I believe also that the sugar companies have agreed to require farmers to take not less than 15 lbs. for each acre contracted. I protest against such action by the sugar companies, and advise them to furnish the amount of seed a farmer wants, whether it is 2 or 20 lbs. to the acre; and, after much observation and considerable experience, I believe that 2 lbs. is much better than 20. We are told to sow thick, then cut out four fifths in "blocking" (this is ad-vised by Mr. Allen, the agriculturist of the Alma factory), and we find by experience that we have to pull out about four fifths of the remainder. Put this in figures-sow 15 lbs., cut out four-fifths and we have the growth of one-fifth of the seed, or 3 lbs., left, and the most of the plants from this 3 lbs., have to be pulled out by hand. The beets actually left to grow in the fields of Michigan are undoubtedly the product of less than 1 lb. per acre. Last season I raised 164 tons at a

Last season I raised 164 tons at a cost, including seed and all labor, of fifty-six cents (56c.) per ton. This

was from $3\frac{1}{2}$ lbs. of seed per acre. The saving in the cost of seed was more than sufficient to pay all the hand labor in thinning and weeding the beets, and they were clean the whole season. This year I intend to sow less seed, and, if the season is good, expect to grow the beets for less than 56 cents per ton.

I cannot believe that the companies are intentionally guilty of the suicidal policy of making the production of beets unnecessarily expensive, but this action of dictating the quantity of seed is little short of an insult to the intelligence of the American farmer.

Beet Growers for Michigan.

Edmund Starke, agricultural superintendent of the Caro sugar factory, has landed 200 experienced beet growers in Tuscola county, Mich., from Nebraska. By this means it is calculated that the methods of caring for the crop of beets can be improved, help rendered more plentiful during the busy season, and a larger amount of beets secured for the annual cam-The foreigners have been paign. selected from the better class of laborers and appear to be a sober and inindustrious lot. It is claimed that a family of four or five can easily care for twenty-five acres of beets. The labor of these people is to be paid by a scale based on the number of beets handled at different stages of the crop. It is estimated that the average wage will amount to \$25 per acre. According to this estimate, each family will be able to make about five hundred dollars per season if the required number of beets can be secured for culture.

To Feed Lambs.

The establishment of beet sugar factories in Northern Colorado promises to have an important bearing upon the fattening of lambs for the eastern markets. Both the tops of the beet and beet pulp from the factories have been proved by experience to be valuable foods for the feed pens. In Nebraska and Utah the demand is only limited by the supply. In Colorado, where



the industry is yet in its infancy, the method has not become general. At Grand Jurction, however, the feeding of beet pu.p was at once adopted. At Rocky Ford the matter is still in its experimental stage. The superintendent at the sub-station of the Colorado experimental station, located at that point, Mr. Griffin, during the past season has been carrying on a very carefully-conducted experiment in lamb feeding upon beet pulp. The comparative value of a diet of alfalfa hay and corn and alfalfa and pulp is being tested. The feeding came to a close about three weeks since, and the results will soon be published in an experiment station bulletin.-Sugar Beet.

Some Pointers.

The ground must be thoroughly moist before seeding. It is a good idea to plow late in the fall, so that the ground will come down in the spring and become fully pulverized; you want air in the ground like you require it in the lungs of a human being. Nature's frost has a lot to do with making the ground moist. Do not manure in the spring-the chunks will interfere with the seeds ; plow late in the fall, and manure the ground then so as to give it a chance to rot. If you have a farm implement that will plow deep in the ground, better results will follow. The soil should be cultivated between the roots carefully. Sugar beets are hard to pull, but when you see money behind them you will not mind that. It takes about 120 days for sugar to mature, and September is the month for harvesting. The sun must shine on the leaf, which makes the sugar Insects will come at times.

Manitoba in the Field.

It has been proved time and again that for growing root-crops the Province of Manitoba is unexcelled. The size and quality of nearly every variety of field root grown in the Prairie Province cannot be surpassed by any other province of the Dominion or by any of the States of the Union. The crop of beet-roots in New York State ranges from fifteen to seventeen tons per acre, and the yield per acre in the other states will not exceed twenty tons at the outside. In the report of S. A. Bedford, of the Brandou, Man., Experimental Farm, for the year 1899, it is found that six varieties of sugar-beets were tested. The best of the e varieties yielded 34 tons and 1,630 pounds per acre, and the least of them gave 25 tons and 1,810 pounds per acre. It may be safely assumed that an average of 25 tons per acre could be obtained by the ordinary farmer. Then the time when beets require cultivation and attendance comes when there are no other pressing farm duties to call attention away from them.

The soil of Manitoba is peculiarly adapted to the raising of root-crops. An expert states that a sandy or gravelly loam was productive of better results than hard and sticky clay. What would be his idea of the rich vegetable mould of Manitoba, full of the chemical constituents which go so far in improving the quality of root-crops?

There is no reason why a factory could not be established in Manitoba. It would be certain to meet with approval from all quarters-especially from the thinking class of agriculturists, who would see in the establishment of the industry a means of escape from the heavy financial loss incurred in the season of 1900. If a factory were established at some one of the smaller provincial towns, there is every reason to believe that it would receive the unqualified support of the farmers of the surrounding districts ; and shipments could also be made to it from other points in the province. It is an industry worth considering .--Free Press.

Agricultural Machinery.

In testing agricultural machinery, it is not unusual to send a competent mechanic with the machine into the field, with instructions to test it as severely as possible, so as to discover to the manufacturer its defects before other machines are generally put on the market; and to this end a score of machines may be put into the hands of tarmers in different portions of the country for thorough and practical test. For these positions are, therefore, required men who understand the practical difficulties of the field and farm and can apply the knowledge so gained in rectifying the difficulties so discovered.

On many of the farms of the West and South will be found collections of machinery and agricultural implements aggregating thousands of dollars. In order that the same should have a chance to wear out and not rust out, they should be kept up to their maximum point of efficiency. The day has long since passed when an ignorant farm hand at \$15 to \$30 a month is required or allowed to take charge of and keep in repair the \$500 to \$5,000 worth of machinery which can now be found on many of our farms. On the largest farms and plantations several competent men are required during the

seasons of use to be continually fixing and repairing these machines and keeping them in the best condition. Between seasons, these same men act as handy men in other lines of mechanical industry, provided they do not migrate. Even on our smaller farms, a mechanic with judgment and experience can find many places where his mechanical knowledge and skill can be economically applied. And what is true of the farm and plantation is equally true of the dairy and creamery. In the above avocations, a skillful agricultural machinist is required ; and if he has had the education afforded by our agricultural and mechanical colleges, he is just that much better off in personal equipment and is of greater value to his employer.

With the introduction of machinery into the dairy, the creamery and the cheese factory, the old vine-covered spring house has put off its traditional rural ways, machinery has taken the place of human hands, and the evilsmelling ammonia has displaced the cooling, trickling stream of spring water, and the trained and scientific agriculturist has superseded the milkmaid of song and fable. Here, then we have need for the engineer who has a wide training and experience in chemistry and in physics.

Now that the demand is arising for competent men to invest, construct, care for and operate our farm machinery, does it not become the duty of at least our agricultural and mechanical colleges to pay special attention and give more time than at present to the principles underlying this rapidly growing specialty; and is not the time near at hand when all agricultural students shall receive instruction in the mechanics of machinery, and in the practical care and construction of agricultural and creamery machinery from the mower to the ammonia refrigerator plant? Such, it would seem to the writer, is the field of labor and of enterprise of the agricultural engineer.

Teacher—How do you account for the phenomenon of dew?

Boy-Well, you see, the earth revolves on its axis every twenty-four hours, and in consequence of this tremendous pace it perspires freely.

The Most Successful Farmers in the World Believe in Sub-Soiling **DO YOU**?

The Vessot Sub-Soiler works to perfection and is attachable to any plough with no extra draft on horses.

PRICE \$5.00 S. VESSOT & CO. 108 FRONT STREET EAST Factory at Joliette, que.

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.

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

annal Membership Fees :-- Cattle Breeders' SI; Sheep Breeders', SI; Swine Breeders', SS BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which be belongs, isring the year in which be 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 soc. per head; non-members ve charged \$1.00.
A member of the Swine Breeders' Association is allowed to register pigs at soc. per head; while non-members are charged \$1.00.
Was mane and address or address or address and subsets.
A member of an Association will only be allowed to advertise stock corresponding to the Association to each address and subsets.
A advertise steep he must be a member of the Domainon Cattle Breeders' Association, and to advertise attract and will be pathibled in the their distance of each month. Members are advertise attract and will be pathibled in the data will be advertise avertise stock for sale, in order that they may be included in the Garette, are required to outfy the advertise avertise in on obfore the stop of sach month, of the number, breed, sac, and set of the animals. Should a member fail to de this bits name will not appear in that issue.
A public distance the animals. Should a member of the data will be published in the most condares of the animals. Should a member for advertise at the stop of the adverti

Farmers' Institutes.

Parmers Institutes. Under this head the Superintendent of Farmers Institutes will each welk publish matter relating to the will include instruction to Sacretaries and other officers, general information about Institutes and Institute work, urgestions to delegates, etc. He will also from time to time review of the published results of experiments conduct-ed at the various Agricoltural Celleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valu-oble argicaltural information which they might not otherwise receive, on account of not having access to be original publications. If any members the line the end of the publications of the Superintendent he will have have a scatter of the superintendent he will have have a scatter of the work. G. C. CREELAM, Superintendent Farmers' Institutes.

Annual Meetings at Fruit Experiment Stations.

When the Institute meetings were first organized in Ontario it was the custom for the professors of the Agricultural College to attend the meetings and deliver lectures on scientific and practical subjects. They were almost invariably well received, and their addresses appreciated. In a very short time the demand for additional meetings became so urgent that a practical farmer with one professor visited each district. Later, a fruit man was added to the delegation, and more applications for meetings were received by the president of the College each year. For the past four or five years, however, the College professors have not been available for the work, and the farmers themselves, including some of the graduates of the College, have had to carry on the work alone.

As the work progresses the demand has become greater and greater for purely practical addresses, followed by practical discussions. The Institute members who attend the meetings want to know not only how a thing is done, but why; and this has led our most advanced speakers to prepare charts and tables, and various other illustrations with which to practically

demonstrate the different operations on a farm.

OBJECT LESSONS.

All up-to-date teachers now agree that the best way to instil practical truths into the pupil's mind, is to actually show them the thing they are talking about, and allow the eye to assist the memory. The time has come then, when more practical demonstration must be given in institute meetings. Were it possible, I should like to see live animals of the different breeds brought to the meetings, and used to illustrate practical talks on live stock. In our severe winter climate, however, this is not practicable in most places, so one large institute meeting is held at Guelph at the time of the Provincial Winter Fair, and thousands of Institute members come here and see the cattle judged, and hear the judge give his reasons for awarding the prizes in the different classes.

SUMMER MEETINGS.

There is no reason, however, why our annual meeting should not be made more practical. They are held early in June at a season between seeding and haying time, when most farmers can easily spare a day from the field work. With this object in view, therefore, we have this year arranged ten orchard meetings as follows :

ORCHARD MEETINGS.

Halton-Burlington, (A. W. Peart's) May 24.

Lincoln-St. Catharines, (T. Archibald's) June 1.

York, East-Agincourt, (W. B. Davidson's) June 4.

Simcoe, Centre-Craighurst, (G. C. Caston's) June 5.

Grenville, South-Maitland, (Harold Jones') June 12.

Northumberland, East-Trenton, (W. H. Dempsey's) June 12.

Bruce, South-Walkerton, (A. E. Sherrington's) June 18.

Wentworth, South-Grimsby, Winona and Fruitland, June 20.

Grey, Centre-Clarksburg, (J. Mitchell's) June 25.

Essex, South-Leamington, (Date not yet set).

At each of these places it is proposed to hold these meetings in the form of a basket picnic ; the farmers driving in, in the forenoon and having dinner in the orchard, after which Professor H. L. Hutt, of the Agricultural College, assisted by such local help as is available, will give practical demonstrations in spraying, pruning, grafting and budding. The meeting will be purely informal, and the professor and his assistants will be prepared at any time to answer questions, and to suggest remedies for injurious insects and fungus diseases.

USING THE ELECTRIC CARS IN INSTI-TUTE WORK.

At the meeting to be held in South Wentworth on June 20, it is proposed to charter several street cars at Hamilton, and to travel south along the electric line to Grimsby, supping en route at the orchards along the way. The institute members will visit, among others, the farms of Murray Pettit, Winona; William Orr, Fruitland; L. Wolverton, Grimsby. In this way we hope to bring our Institute members in actual contact with the best methods of work as performed by our most successful fruit growers. Thus, from Grenville County on the St. Lawrence, to Essex County on Lake Erie, we hope to give every one interested in fruit of any kind, an opportunity of seeing an orchard managed in the most up to date manner.

Poultry Production for Boys and Girls.

By G. R. Cottrell, Milton.

(Continued from last issue)

This fact should be deemed a conclusive answer, that where we find the largest use of agricultural implements we find the greatest prosperity among farmers, and the least discontentment and dissatisfaction among farm labor-And in the districts where they ers. are least used there is debt and destitution, and unprogressive conditions generally-the lowest wages, the lowest scale of living, discomfort and unthrift. It is certainly an advantage to laborer as to landowner, and whether either likes it or not, it is inevitable,

in the order of progress, and those who will not use it must go to the wall. There is another consideration that

should not be forgotten. The influence of farm machinery on agricultural labor has been great in improving its efficiency. Forty years ago, when a reaper was sold, a mechanic was sent, sometimes a hundred miles, sometimes two hundred, to set the machine up and teach some one how to run it, and that was a large element in the higher cost then of such machines. Now there is scarcely a farm where such teaching is needed. The good farm laborer is now a good mechanic, and uses his brains and his experience in many ways unthought of forty years ago.

ESSENTIALS TO SUCCESS

They should first be allowed to subscribe for some poultry paper. For fifty cents you can get almost any paper for one year. One of the chief reasons why some of our industries have been neglected, and why some of our people have grown to dislike the farm, is because the farm home has not been supplied with the right kind of literature. Life is too short for us to waste our time reading thrash. Let us always read good literature. It is by supplying good literature, bringing the farmers and their sons in touch with their business, making them proud of their occupation, and teaching them of the great scientific work which they are carrying on, that the Farmers' Institute in doing incalculable good.

The newspapers of the day have been full of the gold discoveries of the Yukon. During the past year perhaps twenty-five millions of dollars' worth of gold have been produced. A few have made fortunes ; thousands of lives been lost and thousands have spent their savings. During the same period the farmers of Ontario produced wealth amounting to \$250,000,000. If we could increase the wheat pro duction of Canada and the United States one bushel per acre, the yield would be increased by 45,000,000 bushels, or a yearly increase of \$25. 000,000. When we apply the same to oats and other cereals we have a total that makes the gold and silver product of the Yukon, California and Colorado a very small affair.

But returning to my subject-after literature comes the poultry house. Any young person is just as capable of caring for this as an older one, and in nine cases out of ten the young person will take greater pride in keeping everything in order. After the house comes the question of selecting the poultry. It is well to select the breed which the young people admire most, though they should be advised to keep one of the profitable varieties. Íf they commence with the object of producing eggs they will not find their work so much a burden. Yet the production of many eggs necessitates a great amount of study. We have the so-called "everlasting layers" of the Mediterranean class, but if not hand

led properly they will not be profit-Young vigorous stock are the able. An experiment was best to keep. An experiment was made at the North Carolina Agricultural College as to the feeding of flavor into eggs, and it was proved that this could be done.

Now, as it has been proved that pullets are the most profitable to keep, it will be necessary to raise a few chickens every year, thus starting on a small scale and learning a little at a time by experience, and as experience is the best teacher the boy or girl may advance from the egg producer to the broiled grower.

Thus our boys and girls can help the poultry industry of our country, which in turn will help them to develop an interest in the farm and so remain on the homestead, rather than go off to seek other employment elsewhere.

FARM HELP EXCHANGE

<text><text><text><text>

Help Wanted.

Man required to work at mixed farming on a ranch in British Columbia. Wages, from from July 1st to November 1st, \$30 a month with brard. Next six months \$20 per month. No. 816.

Wanted, man to work on a stock farm. Must be good ploughman and used to feeding stock. Will pay \$200, with board and washing, to the right kind of man. Apply A. J. Watson, Castlederg, Ont.

Wanted, good farm hand, accustomed to horses and cattle. provided for married man and yearly engagement to suitable man. Wages a liberal. No. 817.

Experienced farm hands; young, unmarried; good wages. Apply John I Sutcliffe, Davisville P. O., (near h Toronto) Ont.

Situations Wanted.

Position wanted as farm manager or a stockman in a Shorthorn herd, by married man who is thoroughly experienced in the management of stock, also understands sheep thoroughly. No. a 033.

Position wanted by young man 22 years of age, who has worked on a farm all his life and understands all kinds of farm work. Would hire for six or eight months at \$18 a month and a board. No. 934.

Situation wanted on a farm by a young man 22 years old, who is active, strong, and has had considerable ex-Wages required, \$15 per perience. No. month with board and washing. 032.

By a practical farmer, situation as a farm manager. Fifty years of age ; have always worked on a farm. Have had ten years' experience on large farms. Can handle men well; good h references.

Domestic Help Wanted.

Good woman to work on a farm in New York State. Farm is very plea-santly situated on Creek Road, between two small villages. No. 814.

Servant girl wanted for farm house. Must be capable, willing, tidy, and of good character. Wages \$10 per month to satisfactory person. No. 815. a

N.B.-Where no name is men-tioned in the advertisement. apply to A. P Westervelt, Parliament Buildings, Toronto. giving number of advertisegiving number ment.

Stock Notes.

The following is a summary of the official records of Holstein-Friesian cows received by the Holstein-Friesian Association of America, from May 1st to May 16, 1901 : "During this period 32 have been received.

"During this period 32 have been received. 14 full-ace cows average: Age, 7 years, 1 month, 18 days; 17 days after calving; milk 436 5 lbs; butter fat, 14.340 lbs; equivalent butter 80 per cent, fat, 17 lbs, 14 oz.; equiva-tent 85,7 per cent, fat, 16 lbs, 11,7 oz. Five four year-olds averaged : Age 4 years, 3 months, 16 days; 27 days after calving; milk 505.5 lbs; butter fat 11.732 lbs; equivalent butter 80 per cent fat, 14.8 lbs, 10.60.; equi-valent 85,7 per cent, fat, 13 lbs, 11 oz. Two month, 12 days; 21 days after calving; milk 531.3 lbs; butter fat 10.443 lbs;; equivalent month, 12 days; 21 days after caving; fills 351.3 lbs.; butter fat 10.443 lbs.; equivalent butter 80 per cent. fat, 13 lbs, 0.9 02.; equi-valent 85 7 per cent. fat, 12 lbs. 2.9 02. 11 classed as two-year-olds averaged : Age 2 classed as two-year-olds averaged: Age 2 years, 9 monts, 4 days; 27 days after calving; milk 309.1 bits; butter fat 10.885 lbs; equi-valent butter 80 per cent. fat, 13 lbs, 9.7 oz; equivalent 85.7 per cent. fat, 12 lbs, 11.2 oz. Three full-age cows exceeded 20 lbs, butter 80 per cent. fat, and four two-year-olds ex-readed 1: the each ceeded 14 lbs, each.

M-ssrs. Tichenor & Co.'s sale at the American Horse Exchange, Thursday and Friday evenings of last week, under the man-agement of Mr, W. D. Girand, was a record-breaker. This Chicago firm has received high prices before for their consignments, but the sale last week is by far their banner one. Exercisent horsewere end Thursdraw even. one. Forty-one horses were sold Thursday evenone. Forty-one norses were sold 1 nursuay even-ing for \$71,225, an average of \$1,737 each. Friday evening 36 head brought \$19,920, or \$553 average. The total sum received for 87 \$553 average. The total sum received for 87 bead was \$91,145, a grand average of \$1,047 each. The animals offered were in the pink of condition and a superb lot. The first to horses sold brought a trifle more than \$30,000. A single high-stepper brough \$7,600, a pair \$7,000 and a lour \$8,800. Mr. Daniel G. Reed, Mr. W. B. Leeds and Dr. J. E. Ryder were among the principal horse in the sile-a magnificent brown anibuyers. Dr. Ryder bought the highest priced horse in the sile-a magnificent brown ani-mal, 15.1. called Hapyy Thought. Dr. Ryder paid \$7,600 for him, and later gave \$4.750 for Norwich and Norfolk ; \$2,200 fo Clinton and Corinth ; \$3,500 for Broadway and \$3.000 for Rock Island, making a total of \$21.050 for six carriage horses. It is said and \$3,000 for KOCK Island, making a total of \$21,050 for six carriage horses. It is said that all of his purchases were made for Mr. Oliver H. P. Belmont. Mr. Thomas W. Lawson bought Pembrook and Pemberton, a superb pair of cobby built bays, for \$7,000. The Rider and Driver.

The Farm Home

The Rose of Life.

The Rose spoke in the garden : "Why am I sad? The vast of sky above me Is blue and glad; The hushed deep of my heart Hath the sun's gold; The dew slumbers till noon In my petals' hold. Beauty I have, and wisdom, and love I know, Vet cannot release my spirit Of its strange woe Then a Wind, older than Time, Wiser than Sleep, Answered : "The whole world's sorrow Auswered : "The whole world's Is yours to keep. Its dark desc ends upon you At day's high noon ; Its pallor is whitening about you From every moon : The cries of a thousand lovers, A thousand slain, The tears of all the forgotten Who kissed in vain An the journeying years that have vanished Have left on you The witness, each of its pain, Ancient, yet new. So many lives you have lived ; So many a star Hath veered in the Signs to make you The wonder you are And this is the price of your beauty : Your wild soul is thronged With the phantoms of joy unfulfilled That beauty hath wronged, With the pangs of all secret betrayals, The ghosts of desire, The bite of old flame, and the chill Of the ashes of fire " -Charles G. D. Roberts, in April Century. In Touch with Mother Earth

Miss Laura Rose O.A.C., Guelph.

As far back as I can remember I have always had a garden. When but a little girl I had a special flower bed

of my very own which I watered, weeded and picked flowers from. Who does not love a garden ? It brings one into such close contact with the hidden mysteries. What interest and satisfaction to watch the development of a tiny seed into a magnificent plant. Seeds-what suggestive things they are, so full of promise, but alas like many other things in this world sometimes bringing disappointment. How many hours one spends pouring over the gaily printed catalogues ! They make one wish they had miles of garden so as to be able to plant everything and prove whether the wonderful stories are true. I am afraid they are not unlike some people. Their pictures would lead you to think them fair and beautiful beyond comparison, but on personal acquaintance they turn out to be quite ordinary.

Every catalogue has some new and startling novelitis, and we are tempted to invest. There is in human nature an innate passion for speculation, and this is a very mild form, however, it is unwise to indulge too freely. Let one or two new and untried varieties satisfy you each year. The expectation keeps up the interest, and often the disappointment which follows dampens the zeal sufficiently to keep

one from running wild next spring and trying everything in the catalogue. Buy good seed and have some knowledge regarding it. Some varieties come early, others are great yielders, etc. Arrange to prolong the season by selecting early, medium, and late varieties, or by planting the same varieties at different times. After the ground is well prepared, plan how you are going to plant your garden. Do not make nice little beds with paths between which act as drains to carry away, during a rain, the much needed water. Have the garden on the level and plant in long rows. Just as soon as the seeds are up use a dutch hoe to keep the ground between the rows pulverized so as to conserve the moisture, keep the hoeing up all summer ; it answers better than excessive watering.

When the young plants are well established then comes the hardest task of all, and one which really hurts the heart of the amateur gardener and that is the *thinning out*. If we want to have well developed, fine vegetables or thrifty good blooming plants, we must give them room and food. One gets decidedly more off the same plot, and of a much better quality, by properly thinning, and it is economy to learn to do it well.

A good fruit and vegetable garden will lessen the cost of living one third, hesides adding an abundance and variety to the table which otherwise would be lacking.

Few farmers will buy fruit to any extent. He can live without it, and unless he grows it seldom buys it, and so is deprived of one of the choicest luxuries which nature is so willing to give in return for a little intelligent labor and care.

The grower can always depend at least on a small "home" market, ever ready to thankfully receive a constant fresh supply. Many people complain that they have not the time to look after agarden. If the garden is so arranged on a farm that the larger portion of the work may be done by a horse, the labor involved is not great, and a garden should be looked upon as pare of the farm work just the same as the growing of grain, etc. It too often receives the last and least consideration.

The ladies should take the matter of small fruits in hand themselves. With but a tithe of the time that some give to patch work or embroidery they could secure from their dear husband and children double the praise and admiration by placing on the table a tempting dish of strawberries or raspberries.

Allow me just here to put in a plea for a small strawberry bed. Nothing in our garden gives us such satisfactory returns. They are so easily cultivated, and a small patch yields such a quantity of berries.

When a town lady goes to market she comes home with perhaps two

heads of lettuce, a little bunch of carrots and another of beets and remarks to herself.—

"I'll make that do for to-day."

When you go to your garden you pull away until your basket is full, or you say, "I wonder if I have enough" and then take a few more just to make sure of it.

How great and varied are the pleasures that nature provides, when in addition to being bountiful in exquisite flowers, she also gives to every fruit and vegetable some peculiar touch of grace, beauty and flavor.

We do not half appreciate or cultivate the sense of smell. Even the fresh-turned soil in spring has a wholesome, grateful odor. Then come the early spring flowers,—the violet,—the faint, sweet smell of the snowdrop, and later the air laden with the perfume of the apple blossom and the lilac. We have flowers which give to us their sweetness in the dewy morn and those who guard carefully their scent bottles till night lets fall her curtain.

If you have the ground and have not yet put in a garden, it is not too late, if you do so at once.

It will bring you much pleasure, improved health, and some profit.

Hints by May Manton.



Misses' Waist. No. 3813.

Young girls are never more charming than when wearing pretty light colors and gowns cut on simple lines. The very charming design for a waist illustrated is suited to all the soft wools, albatross, crepe, etc., and to such silks as soft-finished taffeta, Corea crepe, Liberty and the like, but the original is of daffodil yellow taffeta, with bertha of panne in a slightly deeper shade, yoke and high collar of white guipure, with tiny enamelled buttons. The foundation for the waist is a snug-fitted lining that closes at

THE FARMING WORLD

the centre back. The yoke and front of lace are simply faced to the proper depth, but the waist portions are cut entirely separate and arranged over the lining. The fronts are tucked to yoke depth, below which point they fall in soft folds, but the tucks in the back extend to the waist line, and form a V that produces a tapeting effect. The sleeves, tucked over the main portion, but left free to form becoming puffs at both shoulders and wrists, are stylishly arranged over fitted linings.

To cut this waist for a miss of 14 years of age 3 yards of material 21 inches wide, 2 yards 32 inches wide or 134 yards 44 inches wide will be required, with 5% of all over lace and 34 yard of bias panne, to trim as illustrated.

The pattern 3813 is cut in sizes for misses of 12, 14 and 16 years of age.

The price of above pattern post-paid is only 10 cents. Send orders to "The Farming World." Confederation Life Building Toronto, giving size wanted

Home-Made Yeast.

Pare four good-sized potatoes, and let them lie in cold water for a half hour. Put one quart of boiling water in a saucepan. Now grate the potatoes quickly, and stir them into the boiling water ; stir over the fire for five minutes, then take from the fire, add a cupful of sugar and two tablespoonfuls of salt, turn into a stone jar or bowl, and let stand until lukewarm, then add one cupful of good yeast, cover and ferment three or four hours; stir it down every time it comes to the top of the vessel ; then put it into a jar or large bottle, or something you can cover tightly, and stand it in a place where it will keep very cold, but not freeze. It will keep two weeks. Save one cupful of this yeast to start with next time. This is the simplest and best yeast that can be made--House keeper.

Cottage Hospitals.

The following is a copy of a letter which Lady Minto has addressed personally to a number of the prominent people of Canada:

"During the extended tour made last autumn by His Excellency the Governor and myself, the urgent need of cottage hospitals in many localities was pressed upon our attention.

"In every community hospital treatment is often required to prevent suffering and permanent injury to health, and, indeed, as a means of saving life. In districts where the population is distant from large hospital centres, cottage hospitals are evidently necessary. Those to be built and to bear the name Queen Victoria Cottage Hospitals would be a lasting and worthy commemoration of our late beloved Queen, whose name has always been connected with efforts to relieve suffering.

"I have already received an anonymous donation of \$2,000.

"I am sure you will recognize the two-fold merits of the effort, and of the fund, which are to help communities to help themselves, and to create memorials worthy of our late beloved Queen.

" I shall be so much obliged if you will kindly give me your interest in this matter, and shall be grateful for any contribution to the fund which you may be disposed to give.

"Believe me, Yours truly, (Sign: d). "MARY MINTO."

Household Hints.

Glass, china and silver came forth shining from suds made from this soap ; used in cleaning lamp chimneys, they become brilliantly clear. Rubbed upon a spot of smut, lamp-black or smudge on wiping cloths, the ebony tint fades from sight; while a suds made from this soap for boiling kitchen clothes renders them perfectly white. Rub a cloth on the soap, apply to the tea kettle, then rub it lightly with a dry cloth and it will reflect your pleased face in its bright surface. Wherever soap is needed for cleaning or purifying, this will accomplish the purpose, and far more efficaciously than any other soap or cleansing compound I have ever used.—The Housekeeper.

"Can you tell me what time it is, my boy?" said a gentleman to an urchin he met in a country lane. "Twelve o'clock, sir."

"H'm," said the stranger, "I should have thought it was more than that." "It never is more than that here, sir," replied the child. "It always begins again at one !"

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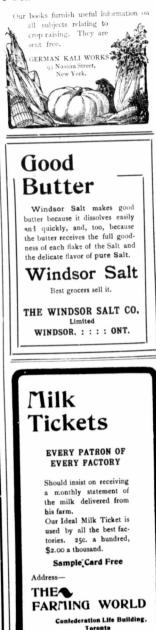
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Durin, Season of Navigation Upper Lakes Steen ahips "Alberta," "Athabasca," and "Manitoba" will leave OWEN SOUND Tuesdays, Thursdays and Saturdays at 5.30 p.m., after arrival of Steamship Express leaving Toronto at 1.30 p.m. Connection will be made at Sault Ste. Marie and Port Arthur and Fort William for al points west.

A. H. NOTMAN, Asst. General Passenger Agent, I King St. East, Toronto. **Choice Vegetables** always bring high prices. To raise them successfully, a fertilizer containing at least 8% Potash should be used.



The Farming World

A PAPER FOR FARMERS AND STOCKMEN.

Publisher, D. T. MCAINSH. Editor. J. W. WHEATON, B.A.

- Editor, J. W. WHEATON, B.A. **The Parming World** is a paper for tarmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance.
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- Is average of the section of parts. Bew to Remit. - Remitances should be sent by cheque, draft, express order, postal note, or money order, payable to order of THE FARMING WORLD, Cash should be sent in registered letter.

Advertising Rates on application.

THE FARMING WORLD, Confederation Life Building Toronto

Business Notes.

The improved Alpha de Laval Baby Separators, handled by the Canadian Dairy Supply Co., Montreal, on page 1026.

The improved U. S. Cream Separator, page 1023, is handled direct by the Vermont Farm Machine Co., Bellows Falls, Vt. Write for illustrated catalogue.

Canada's Great Exposition and Industrial Fair will be held in Toronto on August 26 to September 7. See advertisement on iront cover.

The Greig Manufacturing Co., Montreal, handle the famous Hess & Clark Instant Louse Killer. They claim that it is better and cheaper than a dip. Write for particulars.

New Century American Cream Separator, as advertised on page 1024, is handled in Canada by C. Richardson Co., St. Mary's, Ont. Write for full description and prices. Box 1053.

Elastic Carbon Paint is especially adapted for farm buildings, machinery, wagons, etc., and is manulactured by the Atlantic Refining Co., Toronto. Advertisement on page 1004. They claim a big thing, and recommend every farmer to look into it.

The Farrington Cream Separator, manufactured by the Creamery Supply Co., Cowansville, Que., enables you to secure a maximum yield trom your milk. You will have and nold an exclusive market of your own. Their advertisement appears on page 1026.

Those who have never seen the work of a Joliette Chopper, and are interested, have only to say the word, and a machine will be seen for a couple of weeks. This is a chance to see the valuable work of the famous Joliette, manufactured by S. Vessot Co., Joliette, Oge. Toronto branch, 108 Front street E.

On page 1025 will be found three great watch bargains given by THE FARMING WORLD. Read the conditions carefully. We guarantee any watch, and any person not absolutely satisfied may have his money back for the asking.

Lyman Bros. & Co. have such confidence in their preparation of Snepherds' Sheep Dip that they will give to any farmer who personally bring their advertisement to the warehouse, 73 Front street E., Toronto, a full-size quart bottle for trial. This is a chance to text this dip. See advertisement on page 1004.

Does It Pay to Wash Sheep

Jno. Park & Sons, Burgessville,Ont., write: "We never wash our sheep in the spring before shearing. Our general way is to have all of our sheep shorn by the 1st of May, and as the weather is cool and the water cold at that time, it would be unsafe for us to wash. We frequently wash our sheep in the fall, however, to keep their wool in good shape for the shows.

"We never have had any bad results from washing. In fact, we think it does the sheep good if the water is moderately warm. Sheep should not, however, be washed on cloudy days, and we never wash later in the afternoon than 4 o'clock, as they then dry off some before night, and are not likely to take cold."

Binder Twine Factory for Manitoba.

A movement is on foot to establish a binder twine factory at Brandon, Map. The proposal is to erect a factory employing thirty or forty hands, and having a capacity of 500 to 1,000 tons of twine per year. Brandon has been selected as the most suitable location for the industry, situated as it is in the very heart of the wheat-growing section of Manitoba, and being within easy shipping distance of other centres where large quantities of twine are sold. The manufacture of twine there would cost but a trifle more than in eastern Canada, and a very large saving would be effected in freights. The promoters ask for a site and exemption from taxation for a term of years, and from the favorable manner in which the members of the board of trade council viewed the matter it is more than likely these will be readily obtained from the city council.

Buying Live Poultry.

The Canadian Produce Co., of this city, is already making arrangements to buy poultry the coming season. In a circular recently issued to their customers, they state that they are prepared to buy one thousand tons of chickens and ducks this season. This would indicate that the business conducted by this firm last season has been most successful. At any rate their enterprise, shown last year in the prices paid and the number of chickens taken from the farmers of this provunce, stimulated the poultry business very materially.

To Canadian Breeders.

Manager Hill, of the Industrial Exhibition, is exerting himself to the utmost to make the coming Exhibition the best yet held. Mindful of the Pan-American he has written letters to every manufacturer whose address he could obtain, and to every live stock breeder urging them to exhibit this year, and reminding them that the foreign visitors to Canada and the exhibition from



Perhaps You Have Never Seen The Work of a



"Joliette Chopper"

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S. VESSOT & CO., 108 Front St. E. - Toronto Factory at Joliette, Que.



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Wide-Tire Wheels Made to fit any axle.

They are lighter, stronger and much cheaper than wooden wheels.

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should be used by every farmer, in fact by everyone who has a waggon

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When writing to our advertisers, it will be to your advan. tage to mention " The Farming World."

August 26 next, to September 7, are likely to number more than has ever yet been known. Reference has previously been made in THE FARMING WORLD to the fact that the prizes for live stock have been greatly increased, thanks both to the Dominion Shorthorn Association and the Industrial Exhibition Association, which together have made grants that will increase the amount of prize money twenty-five per cent. over last year, which was fifty per cent. greater than that given three or four years ago. It should be a question of patriotism to exhibit at Toronto Fair this year, for the bet ter and greater the showing the greater and the better will be the opinion of our country formed by the army of visitors who will flow over from the Pan-American, the live stock show at which follows that held at Toronto. Manager Hill has received a number of letters from manufacturers and others promising to come out unusually strong, and he, therefore, feels confident the farming industry will follow their example. A new dairy building will almost certainly be one of the features, and speaking of that fact induces us to urge all our friends to bring to bear any influence they may have toward securing the passage of the by law to raise the necessary funds to be submitted to the ratepayers on Friday, May 31, instant.

Model Dairy at Pan American.

As we have frequently noted in these columns an importannt milking test is now being conducted at the Pan-American Exposition, Buffalo. The The object of this test is to demonstrate in a practical way how cheaply milk and butter can be produced under certain given conditions with the various breeds of milch cows. The test began on May 1, and will be continued for six months. The expense of this test is being borne by the Exposition Company, and the results are likely to prove of very great value to the dairy industry of this continent. Twenty-five Canadian cows, five each of five breeds, viz : Shorthorns, Holsteins, Ayrshires, Jerseys, and French Canadian cattle.

A careful record is being kept, based upon the rules governing the test, the chief features of which we give below. For the week ending May 11, the Holsteins led in quantity, with the Ayrshires a close second. The Guernsey gave the best quality of milk, the Jersey and Jersey Polls coming next. The following is the average number of quarts given by the various breeds for the week : Poll Jersey, 77; Holsteins, 164; Guernseys, 123; Red Polls, 123; Ayrshires, 153; Brown Swias, 136; Dutch Belted, 77; Shorthorns, 140: Ierseys, 117; French-Canadians, 108.

The advisory committee in charge of this test is a very comprehensive one. Canada is represented on that committee by the following: F. W. Hodson, representing the Dominion Government; J. H. Grisdale, the Experimental Farms; Robt. Robertson,

the Ayrshires; Prof. G. E. Day, the Jerseys; G W. Clemons, the Holsteins; Dr. J. A. Couture, the French-Canadian Cattle, and A. W. Smith, the Shorthorns.

RULES AND REGULATIONS.

The initial weight of each animal shall be the average weight of each cow during the first five days in May, and the final weight shall be the average weight of each cow during the last five days of October.

The value of all feed shall be charged each cow as follows: Oil meal, \$29 per ton; bran, \$15; ground oats, \$18; cotton seed meal, \$25; corn meal, \$16; gluten meal, \$16; pea meal, \$25; corn meal, \$17; ensilage, \$2, and green food, \$175 per ton. These are estimated to be the average prices in the United Siates and Canada during the past five years. The amount and character of food given each cow per day shall be in such quantities, and in such a manner as the representative of the breed shell deem proper for his breed.

The time and manner of milking each herd shall be determined by a representative of each breed and the superintendent of the test. Immediately after the milking of each animal and the weighing of said milk, a sample representing a constant decimal of same shall be taken by means of a milk "thief." The sample thus taken shall constitute a composite sample of each cow's milk, in which on every Wednesday the per cent. of butter-fat shall be determined by the Babcock test, and by this combined with the average of the lactometer readings of each milking, the amount of total solids shall be determined. From each lot of butter a sample shall be taken for chemical analy-The cream from each day's sis. milking of each herd shall be churned regularly once a week, and the week's vield of butter shall be computed therefrom.

The products of the dairy shall be valued as follows: Butter, 25c. per pound; butter fat, on a basis of 85 per cent. fat in butter. The loss or gain in weight of animals shall be computed at 3 cents per pound.

There shall be maintained on exhibition in the dairy sample prints of the butter from each herd, which shall be free from artificial coloring matter to show the grain. With the sample shall be shown the score of the same and also a sample of the whole milk of the same breed. A bulletin board shall be placed near each animal, upon which may be placed the name of the animal, her pedigree, and weekly record, including cost of food, amount and quality of milk, and estimated quantity of butter produced. This record shall be renewed and brought up to date each week.

Prizes shall be awarded as follows: A prize shall be awarded for the herd showing the greatest profit, butter fat alone considered, as determined by the Babcock test; for the herd show ing the greatest net profit, butter alone



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The Bulletin Press Association, New York.



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considered, as determined by the churn; for the herd showing the greatest net profit in total solids ; for the herd showing the greatest net profit in total solids and in loss and gain of live weight.

There are other regulations regarding the withdrawal of animals, etc., and the use of stimulants and drugs, which are only incidental and not necessary to be published here in order to give our readers a clear idea of the manner of conducting the test. Provision is made for conducting the test throughout accurately and without any favors whatsoever to any class or breed. We will try and keep our readers posted as to the results of the test as it progresses during the season.

... The Age of a Horse.

In young horses, we judge age by observing which of the milk teeth are present and which have been replaced by permanent ones To distinguish between the milk teeth and the permanent, remember that the milk teeth are smaller, whiter, and have a distinct neck. Until a colt is over two or three years old his teeth are all milk teeth, and the age is estimated from the amount of wear shown on the crown of the teeth. Between two and three the first of the permanent teeth make their appearance and push out the middle two teeth in the upper and lower jaws. A horse is said to be three years old when these central permanent incisors are fully in wear. During the next summer the second pair of permanent teeth appear. and when they are fully grown and in wear the horse is four years old. Between four and five the last pair make their appearance, and now the horse has what is called a full mouth. So far both mares and horses are alike, but at or near five years old the "cannes" or "tushes," appear in the male sex Up to the end of this period only. the determination of the age is a comparatively easy matter, and any one who is at all observant can readily give the age of horses by looking at their teeth. After a fuil month is attained it is a more difficult matter as the difficulty is greater in proportion to their age. So much is this the case that it is popularly supposed that it is impossible to tell the age of horses after they are eight years old. This may be true to a great extent among the un trained and inexperienced, but to an expert it is not difficult to tell the age up to 15 years with a fair degree of accuracy, and after that age to approximate it within a couple of years. To do this successfully requires much experience and a careful inspection of all the visible indications of age. To rely upon one only, such as the " mark," is to court defeat. All should be observed-the mark, the shape of the teeth, their length and the angle at which they meet those of the other jaw .- Pall Mall Gazette.



Important Auction Sale SHORTHORN CATTLE

WING to dissolution of the firm of ISAAC USHER & SON, the entire Queenston Heights Herd of Shorthorns will be sold on WEDNESDAY, JUNE 19TH, at the Farm, 3 miles north of Niagara Falls. Electric car service every 15 minutes. Also electric railway connections with Pan-American-Niagara River Steamers every 2 hours, from Toronto to Queenston.

Send for Catalogue containing particulars to

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CAPT. T. E. ROBSON, M.L.A., Auctioneer, Ilderton, Ont.

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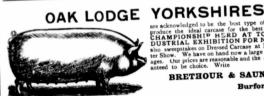
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are acknowledged to be the best type of bacon hog to produce the ideal carcase for the best English trade. CHAMPIONEXAIBITION FOR NINE YEARS also sweepistis so Dressed Carcase at Provincial Win-ter Show. Due have on hand now a large herd of different ages. Our prices are reasonable and the quality is guar-anteed to be choice. Write

BRETHOUR & SAUNDERS. Burford, Ontario

PURE-BRED STOCK NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and hocks that is not in the nature of an advertisement, will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnessly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.

Horses.

The pure bred Clydesdale stal ion, Granite Lad, the property of Mr. W. F. Broad, V.S., Lindsay, will travel this season between Lindsay, Cameron, cienarm, Woodville, and Little Britain. Granite Lad is a good draugh horse; he is a beautial dark bay in color, stands 17 hands high, weighs t,800 lbs, and when fully matured will reach 2,coo lbs. He has proved a successful winner at the Toronto and Lindsay fall fairs.

The well-bred young Clydesdale stallion, Craichmore, foaled August 1, 1896, the property of D. McPhaden, Cresswell, will make the season of 1901 at his own stable, lot 24, con. 5, Brock. Craichmore is a beautifal bay with white hind fetlocks and star, weighing in season condition 1,8000 lbs. At Toronto Industrial Exhibition he won third prize in a strong class, and always won first prize at time leading local fairs. He took first prize at Lindsay, 1901.

Caltle.

Robert Miller, Stouffville, Ont., writes Robert Miller, Stounville, Oht, writes the Breeders' Gazette in regard to the recent shipment of Shorthorns to South America as follows: "Alexander Bruce, Cherbury, Booterstown, Dublin, ships from Hamilton, Ont., May 11, a very valuable consignment of Snorthorn bulls for South America. Fearof Snothorn bulls for South America. Fear-less Archer (72520), purchased at the "All South" sale held in Chicago, April 5, needs no description, as he has justly been highly spoken of when the sale was advertised. Mr. W. D. Flatt furnished the great two-year-old bull (Donsul (76405) lately imported by him, and he may be counted among the very best that has been imported. The price of this bull is port made public, but it was a very bin that has been imported. Ine price of this bull is not made public, but it was a very big one, as he cost more money than any bull that has been imported to Ganada for many years. Mr. Flatt did not wast to sell, and great inducements had to be offered. This bull has been one of the most successful bulls bull has been one of the most successful bulls bell has been one of the most successful balls during the past year in the Scotch showyards. He is a Campbell Claret. Mr. Flatt also sold the yearing bull, Rosy Lad, a Bruce Rosewood by Sulterino, the Scotch and Bates bull now in use in the Mills herd in Eq-land. This is a very promising bull. Trout Creek Branpton, a beautidu roan Crimson Flower, two years old, concluded Mr. Flatt's lot, and they are, in both breeding and form, good enough to do credit to the herd which fornished them ; this is saying a great deal for them. Capt. T. E. Robson supplied a nice thick two year-old bull of the Campbell Besig family. Eastwood Bros., of Ontario, b) them there is a start of the campbell beside tamily. Eastwood Bros., of Ontario, supplied a grand two year-old buil in Governor. He won the first prize at the Tornto show last year, and was shaping himself for winning again. He weighed 2,300 pounds without any roughness, and is not three years old until September next. W. G. Petit & Son, Freeman, Ont., furnished the imported buill Pare Gold, a buil of very nice character and a well-bred one. Iowa Champion, Durchased from George Harding & Son, Waukesha, Wis., is so well and favorably known as a show and breeding built three derives for the second built and beeding built three derives. Royal Built bret dy the red Princess Royal Built bed by Marr and lately sold by me to the Agricultura. College, Michigan, was purchased by Mr. Bruce. This is a grand red bull used before importation by Mr. Marr, and the sire of some of the calves that sold for such a great verage at the Duthie-Marr sale last October. Princes Artur, also bed by My er with we red her work, together with the roan two-year-old Mysis built by Merry Hampton and from the full sister to the dam of Joy of Morning, now at the bead of the Hill. Bessie family.

hurst herd, were purchased from me. The consignment consists of eleven bulls as good as we can supply, and should test the market fairly. The bulls that have been taken from fairly. The bulls that have been taken by those Canada before were not taken by those familiar with the market and were too young. tamiliar with the market and were too young. To meet this trade we will have to do the same as was done in Great Britain—prepare ourselves for it by having a number of two-year-old and three year-old buils in good form and weil grown, ready to show to the men who have made the trade what it is. It is most difficult to get a footing in the Argennon-unitar to get a footing in the Argen-tine, but when a good reputation as a judge and for fair dealing is established, it is worth more than in any country I know of. Nothing but the highest class bulls can be taken there to advantage. If the loss of the privilege of slaughtering their cattle in London and Liver-pool does not make the business of the pool does not make the business of raising cattle worse than it has been, there will be a demand in South America for good bulls two demand in Sould America for good buils two and three years old. Mr. Bruce is a son of Robert Bruce, secretary and manager of the agricultural part of the Royal Dublin Society. He was one of the foremost Shorthorn men of his day in Scolland, and he negotiated the sale of the Sittyton herd to Messre. Nelson, of Chebinemer to, the According sale of the Sittyton herd to Messrs. Netson, of Liverpool, for shipment to the Argentine-He is one of the best judges of the present day, and his son Alexander is recognized as one of the business in Great Britain. Mr. Robert Bruce took a small number of Scotch Shorthorns from the States and Canada a number of years ago; that was the first ship-ment of Scotch Shorthorns taken from the new to the old world. During the last four or five years I have never missed an opportunity to try to induce those buying bulls in Grat Britain for South America to give us a visit and try a shipment from Canada and the States. It is to be seriously hoped that this shipment will be a paying one, and that others will follow there will then be no doubt."

In THE FARMING WORLD for May 14 we reproduced a photograph of a young Shorthorn buil, the property of H. C. Graham, Alisa Craig, Ont. In the description beneath the illustration a couple of typographical errors appeared. His age is 19 months instead of 11 months, as given, and his name is Larry 11-36371, not Harry. He is from good milking tamilies, and is of good blood, having in his pedigree such balls as Chief Baron, got by Indian Chief (imp.)=11108 = ; the Duke of Salisbury (imp.)=440-a pure Duke got by Grand Duke 37th (33307), out of Thorn-diale Rose 37d, and 7th Earl of Darlington = (45207). Mr. Graham is offering this bull and another of equally good breeding for sale. Parties desiring to secure good breeding stock smould write him.

The well-known firm of Isaac Usher and Son, Queenston, Ont., will offer for unreserved sale on Wednesday, June 19th next, their entire herd of pure-bred Shorthorns, consisting of seventy animals, nearly all of which are young stock heifers. Eight bulls are included in the list. This herd contains a number of animals of excellent quality and breeding, and the sale will furnish an excellent opportunity for procuring high-class stock for breeding or show purposes. The firm have dissolved partnership, and consequently everything will be sold. Fuller particulars regarding the individual animals of the sale will appear later.

Mr. H. J. Davis, Woodstock, Ont., will sail for England about June 1, for the purpose of making an importation of Shorthorn catle and Yorkshire swine. Mr. Davis will visit the Royal Show and Glasgow Exhibition.



Market Review and Forecast

THE FARMING WORLD, Confederation Life Building, Toronto, May 27, 1901.

There has been a steady development of trade this month. In a number of depart-ments the sales are considerably in excess of ments the sales are considerably in excess of last year. As May is the month when the marketing of farm produce becomes very light, and the purchases by the agricultural population decline, the results so far are con-sidered very encouraging. In a number of departments of wholesale trade the sales of goods up to the middle of this month were equal to the whole volume of business done for May last year. In very few departments are sales reported to have fallen below those of a year ago. of a year ago.

Wheat

The Trade Bulletin, dealing with last

The Trade Builtin, dealing with last week's market conditions, says: "The chief feature in the situation this week is the large decrease of 3,263,000 bush-els in the visible supply of wheat in the United States and Canada, and the still greater decrease of 5,022,000 bushels in the world's amount in sight. But this appears to have been more than offset by favorable crap news, which appears to have more effect crop news, which appears to have more effect upon the market than spot conditions. We are within about five weeks of the new crop year, and the amount of wheat in sight is \$4,978,000 bushels. So that if the decrease \$4,978,000 bushels. So that if the decrease during the next five weeks continued at the rates of five million bushels per week, there would still be in sight 59,668,000 bushels to begin the new crop year with although on sight was 72,202,000, but wheat was then selling in Chicago at about 78c, or about 4/5 to 5c, higher than at the beginning of the present week."

present week." The spring wheat crop in the Western States is making satisfactory growth, though rains would be desirable in some sections. The markets have ruled steady during the week, and prices at most Canadian points have ruled a little higher. The market here keeps steady at from 67 ½ to 60c. for red and white at outside points, 66 to 67c. for goose, and 69c. for spring fife east. On Teronto farmers' market red and white bring 72 to 0 7c., goose 65 ½c. and spring fife 71 ½c per 73c., goose 681/2c. and spring fife 711/2c per bushel.

Oats and Barley.

Though the English market is lower, prices for oats on this side have ruled steady. Oats are quoted firm here at 33c, for No. 1 white east and 31/2 to 32c, for No. 2 white middle freights. On the farmers' market oats bring ard to 35c new buched 37 ½ to 38c. per bushel. There is a fair export demand for feed bar-

ley. Prices here are 43 to 50c, as to quality and point of shipment. On Toronto farmers' market barley brings 46 to 47 ½c. per bushel.

Page and Corn.

Supplies of peas are limited, and prices keep steady. The market here is firm at 65c. north and west, 67c. east, and 66c. middle freight. On the farmers' market peas bring per bushel. 666

Corn is still under the influence of the speculator, though not to so great an extent. American No. 3 yellow is quoted here at 49c. Toronto and Canadian at 40½ to 41½c. at points west.

Bran and Shorts.

The demand for bran has fallen off som the demand tor oran has taiten off some-what, owing to more green feed. Ontario bran is quoted at Montreal at \$15 to \$15.25, and Manitoba at \$14.50 to \$15 in car lots in bags, and shorts at \$16 to \$16.50 per ton. City mills here sell bran at \$15 and shorts at \$16 in car lots f.o.b. Toronto.

Eggs and Poultry.

The English egg market rules firm, though the English trade state they will have to pay

lower prices this year for Canadian pickling stock. The market on this side keeps steady, Montreal quotations are 11 to 114 c. in large lots. There is a fair demand here at $10\frac{1}{2}$ to 11c. in case lots. On Toronto farm-ers' market eggs bring $10\frac{1}{2}$ to $12\frac{1}{2}$ c. per docen

On the local market here dressed chickens bring 60 to \$1 per pair, and turkeys 11 to 13c. per 1b.

Hay and Straw.

The outlook for a big hay crop is good. The Montreal market is firm, and the Govern-ment is still buying for the War Department. ment is still buying for the War Department. Some sales of No. 2 baled hay have been made during the week at country points east, coating \$10.50 per ton at Montreal. The market here is moderately active, and prices are steady at \$9.50 to \$10 for cars of No. 1 timothy on track, Toronto. Car lots of baled straw are quoted at \$5 to \$5.50 per ton. On Toronto farmers' market hay brings for the \$1.20 of here traw \$0, and hone \$11 to \$13.50, sheaf straw \$9, and loose straw \$5 per ton.

Cheese

The old country market has declined I shilling on the week for old cheese. There has, however, been an active movement in new goods on this side. A feature of the week has been the steady advance in prices at the local markets. The Peterboro board was cleared at 81/2c. for colored, and the was cleared at $8\frac{1}{3}$ c. for colored, and the Napanee at $8\frac{1}{3}$ to $8\frac{1}{3}$ c. At Brockville, 2,500 boxes sold at 9c. The ruling price has been from $8\frac{1}{3}$ to $8\frac{1}{3}$ c. At Montreal, finest westerns are quoted at $8\frac{1}{3}$ to $8\frac{1}{3}$ c. and easterns at $8\frac{1}{3}$ c. At London, on Saturday, where world at 9c for row rows cheese sold at 91c. per pound.

Butter.

There is a good demand for butter for export, and prices have advanced considerably, The arrival of large quantities of Russian butter in England is put forward as a plea that Canadians must give more attention to the quality of their product. The *Trade Bulletin* deals with the market of the week as follows : "The market has become excited in follows: "The market has become excited in the country, and some extensive sales have been made within the past week at quite an advance over last week's prices. At the close of last week sales were made at 18% c. f.o.b. at country points, and several thousand boxes were picked up at the beginning of the week were picked up at the beginning of the week were picked up at the beginning of the week at 19 to 194c, and then at 194 to 194c, was paid, and yesterday 10% to 20cc. and 20%-was paid 1.0.b. These figures show an ad-vance of 14 to 1%c. over last week's prices. The top prices, it is said, are for 2 per cent. saited and unsaited. The Allan Grove creamery sold at 20c. on this market, about to 2 days. 250 boxes. In dairy butter, sales were made of nice dairy packed western at 16 and 16 c."

Creamery is quoted here at 18 to 19c. for prints and 17 to 18c. for tubs and boxes. The best dairy brings 13 to 14c. in round lots. On Toronto farmers' market butter brings 13 to 17c. per lb.

Cattle

The cattle situation remains firm and the The cattle situation remains firm and the leading American markets rule strong for choice quality. Cables are steady and the outlook good for nearly all class of fat cattle where the quality is good. At Toronto cattle market, on Friday, there was only a light run of live stock, consisting of 60 cattle, §54 hogs, 74 sheep and 25 calves. The quality of the fat cattle was generally good, there being a few lots of really choice butchers' and exporters' offered. The trade for fat cattle then more then active, and few were left unexporters' offered. exporters offered. In trade for fat cattle was more than active, and few were left un-sold at 9 a.m. Several export dealers as well as butchers were unable to procure what they wanted. Prices were firm, and butchers' cattle were, if anything, a little higher than earlier in the week.

earlier in the week. Export Cattle. —Choice loads of these are worth from \$5 to \$5.35 per cwt. and light ones \$4.75 to \$4.90 per cwt. Heavy export bulls sold at \$3.35 to \$4.25, and light ones at \$3.40 to \$3.50 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters', weighing 1,050 to 1,150 lbs each, sold at \$4.85 to \$5 per cwt. good cattle at \$4.65 to \$4.80, medium \$4.50 to \$4.65, and inferior to common at \$3.60 to \$4.30 per cwt.

Feeders.-Heavy, well-bred steers, from 100 to 1,200 lbs. each, sold at \$4.50 to 1,100 to 1,200 lbs. each, sold at 54,50 to 54,25 per cwt. Light steers, weighing 900 to 1,000 lbs., sold at \$4 00 to \$4,25 per cwt.

Stockers. — Yearling steers, 500 to 800 lbs. each, sold at 3_2 ,75 to 4_2 .00, off colors, and inferior quality at \$2.50 to \$3.00 per cwt.

Calves. -These are higher at Buffalo, choice to extra bringing \$5.50 to \$5.60 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Milch Cows-These sold at from \$30 to \$50 each. Choice cows would bring more money.

Sheep and Lambs.

The Buffalo market has ruled higher for The Buffalo market has ruled higher for lambs, choice to extra, are quoted there at \$565 to \$575 per cwt. and sheep at \$4.565\$4.75. At Toronto market on Friday sheep sold at \$3.500 \$53 80 per cwt. for ewes, and \$2.500 \$53 for bucks. Veatling grain-fed lambs sold at \$4.50 to \$5 per cwt. and other quality at \$4.054, \$50.

Hogs.

The prices quoted last week have been maintained. On Friday select bacon hogs



sold at \$7.25 and light and thick fats at \$6 75 per cwt. Unculled car lots sold at \$7.15 to \$7.20 per cwt.

\$7.15 to \$7.20 per cwt. The Wm. Davies Co., Toronto, will pay \$7.25 this week for select bacon hogs, and \$6.75\% for light and \$6.75 for thick fats. At Montreal bacon hogs have sold at \$7.40 and other grades at \$7 to \$7.25 per cwt. The *Trade Builctivi* : London cable of May 23, re Canadian bacon reads thus : bipher with good

23, re Canadian bacon reads thus: "Market firmer and 2s. higher, with good demand at the advance. Canadian bacon is quoted at 598. to 628, with sales at both figures. Fancy lean ides have brought 1s. to 2s. more money."

orses.

Over 100 horses were sold at Grand's last week by public and private sales, in addition to 75 head sold to Lieut Col. Dent for the British army. The next inspection of horses for army purposes in Toronto will be on June 10 and 11 next. Any horse owners having horses they wish to sell for army purposes should bring their animals for inspection byW. H. Smith, at Grand's, not later than June 8. The British officers here will not undertake to select horses until someone familiar with the types required has examined them. It will therefore be a saving of time and money in the farmers' pocket if they observe this rule.

In the regular classes trade is active and there is a good demand for serviceable horses of any class at profitable prices. Last week good drivers brought \$100 to \$175 at the public sales, and several private sales of pairs well broken, well bred and in good condition, brought from \$200 to \$400 per pair. Heavy drafts are in good demand for this season, and there is a better demand than usual at this season for workers. The sales have been largely attended and bidding brisk.

and there is a better demand than usual at this season for workers. The sales have been largely attended and bidding brick. A Montreal report says: "The demand for heavy draughts seems to have fallen off, the only sales reported to us being a pair of this class for \$400, and a heavy animal for \$160 but this last was not quite sound. About 15 to 20 saddle and drivers were sold at prices ranging from \$100 to \$200, also a carriage horse for \$185. Mr. Wm. A. Leney, of Ormstown, P.Q., bought a nice, use'ul light driver for \$125.

Origin of Vinegar Pie.

"'I want to know,' says the other man, admiringly. And he did. The recipe was passed around, and vinegar pie passed like wild-fire to the south ward to the people that call a pail a bucket and a basin a pan, and where they have a letter 'r' broad enough and flat enough to roll out pie crust on in case of emergency. Years have passed, and with them the memory of that dear soul that first discovered vinegar pie; yes, even vinegar pie itself has passed away, too, save in the recollections of the older people, so complete is the triumph of the selfsealing fruit can. I have used the name of Kinney, but that was because I thought it sounded kind of Yankee, but I should like to know her real name, and where she sleeps, that I might stand beside that weed-grown hollow that was once a mound above her, that I might read the mossy epitaph on her leaning tombstone :

"A Faithful Friend, a Mother Dear, A Loving Wife lies buried here.

-Ainslie's Magazine.

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