

The Farming World

A PAPER FOR
Farmers and Stockmen



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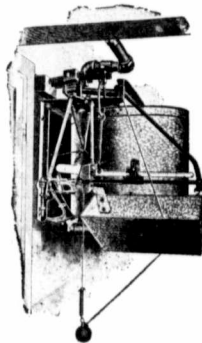
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The Farming World

For Farmers and Stockmen

VOL. XVIII

MAY 21st, 1901

No. 39

Bright Outlook for Agriculture



THE outlook for agriculture keeps bright. In live stock alone there is sufficient encouragement to warrant a farmer in taking the most rosy view of the future. True, the scrub or medium type of animal is somewhat hard to dispose of; but first-class stock, in nearly every class, is selling better than for years past. There are not enough first-class horses of the right type to supply the demand. In beef cattle the demand for breeding animals and store animals has not been equalled for years. This season up to the present time breeding animals to the value of \$17,000 have left this province for the Canadian West through the Live Stock Associations. Only last week Secretary Westervelt received an order for two car loads of Shorthorn bulls to be shipped to British Columbia by June 1st.

And so the good work goes on, and the demand for Ontario stock keeps growing apace. Our breeders are now beginning to reap the benefits of that vigorous inter-provincial trade policy and movement for reduced freight rates begun a few years back. In addition to this feature, and the rapidly expanding trade with the United States, a new element has entered into this branch, viz., the shipping of Canadian pure-bred stock to South America. A car load of the very best Shorthorns that this country produces left for the Argentine last week. They are not being sent there on a speculative venture, but were purchased in this province by a representative of one of the large breeders in that country.

In the other classes business is good, and the outlook encouraging. When have our farmers been able to realize \$7.25 per cwt. for hogs? Not for several years. Though the sheep industry is, perhaps, not experiencing the boom that some of the other branches are, yet we are pleased to be able to report a steady growth and a healthy trade in this line also. True, the wool market shows little signs of improvement in prices. But with our leading sheep men wool is only a secondary consideration. The lambs are the chief source of profit, and the farmer who engages in sheep husbandry with that object before him is sure to meet with success. Indeed, the horse, the cow, the sheep and the hog are rallying around the farmer in these early days of the century as they never did before. He has no better money-maker than these, and their interests should in no wise be neglected. We would advise the farmer who is not making some phase of live stock husbandry a special feature, to get into line right away. This movement is not a mere transitory one, but is characterized by a degree of permanency which we believe will keep it to the front as a money-making business for many years to come in this country.

As to the other branches of agriculture there is nothing discouraging in the outlook, while there is every cause for hopefulness. The dairy business has, no doubt, received a slight setback in the rather unexpected and unfavorable ending of last year's cheese trade. But in this the farmer came out on top, and it is only the dealer who held on to his high-priced goods too long, who is suffering. Of course this reacts upon the producer in the business of the new season upon which we have just entered. But even here the outlook is good, and at 8c. to 8 1-4c. for early May cheese the farmer has little cause to grumble. The activity displayed at the opening of many of the cheese markets a week ago would seem to indicate that things are not so dull in this trade as some dealers would lead us to believe. In fact, the cheese situation, when stocks of old goods and supplies of new cheese are taken into account, indicates a rather healthy condition of affairs.

In the line of cereals the least can be said. But our farmers are not so dependent upon these for a cash revenue as they were a few years ago. In fact the days of the purely grain farmer in this country are ended. And if crops are good, and he can raise plenty of feed for his stock, the farmer is in a large measure independent of the price of wheat and kindred crops. Corn is an important factor in stock-feeding, and our farmers are paying more attention to this crop than ever before.

A glance at the other branches of farming, such as poultry, gives a most encouraging outlook. The expansion in this line is just beginning, and farmers should adapt themselves to the needs of this trade by rearing better fowl and feeding and caring for them properly. Another feature that contributes largely to the rosy outlook before the farmers, more particularly of this province, is the sugar beet industry. There will, without doubt, be several large factories in operation within a couple of years, and in this new industry the farmer has an additional source of revenue that must yield a rich reward for intelligence and labor.

The Hog Market Active

There is a very active movement in hogs just now, and prices for first-class singers have reached a pretty high level. Last week select bacon hogs sold on Toronto market at \$7.25 per cwt., and still higher values are looked for. It would not be at all surprising, owing to the increased demand for hogs and the scarcity of the supply in the country, to see values advance to \$7.50, and even higher. A year ago at this time select bacon hogs sold on this market at \$6.25 per cwt., so that present prices are \$1.00 in advance of a year ago. At no time during the past year have prices been at a low ebb, and everything has been favorable to the producer.

As to the permanency of these prices, it is

hard to speak with certainty. We have, however, reached a season of the year when high values are likely to prevail, and good prices may be looked for till the fall supplies arrive, though present figures may be lowered somewhat. The English market for Canadian bacon has advanced two shillings during the past two weeks, and an active business is reported. Though things are brisk, farmers should not neglect proper feeding methods. It is only the finest quality that brings the highest price. In this connection read notes on causes of soft bacon elsewhere in this issue.

The Hired Man in the Home

At Woodstock a week ago a rather curious suit for wages came up for decision before Judge Finkle. A young man engaged with a Blenheim farmer to work. The agreement, as he stated it, was that he should receive \$180 for nine months' work, and that he should be accorded all the privileges of a member of the farmer's family. All went along smoothly till several nice-looking girls came to visit in the home. The visitors sat at the family table and so did the hired man, but the latter claimed that as he was not introduced to the young ladies by his employer he was barred from entering into the conversation which went on around the table. This, the hired man claimed, was a breach of contract, and consequently left his employer and began a suit to recover the full amount of his wages. The Judge dismissed the case.

In referring to this incident, we have no desire to discuss the merits of the case in any way, but to draw attention to the conditions surrounding the employment of farm labor in this country, which make a suit of this nature possible. We do not wish to reflect in any sense upon the character of the hired man, as we believe honest labor in every walk of life is deserving of all the legitimate pleasures which come its way. But this does not alter the fact that the general system of employing hired help on the farms of this country is radically wrong, and cannot but prove unsatisfactory to the employer and the employed. Where a man is engaged only for a few months during the busy season, and has to remain idle or seek employment in some other line, he sees nothing in farm life to induce him to remain in it, and generally drifts to the city, or takes up land for himself in some new district, thus making it difficult for the farmer in the older districts to get sufficient help during the busy season to carry on the work of the farm properly. The remedy for this kind of thing is to be found in the employing of help on the farm all the year round. And if the farmer has a separate house, and employs a married man, so much the better. Taking everything into consideration, this is the most satisfactory way of engaging farm help. A married man, in the very nature of things, will give better service, and as he has a family depending upon him, will do his best to please his employer. And if he is supplied with a little home and a small plot of ground, he will not be anxious to change his position or to seek employment elsewhere. It would be worth a farmer's while, who secures a steady young man to work on his farm, if he were to throw out inducements in the way of a little

home, in order to retain his services for a number of years.

Then, in addition to all this, the providing of separate homes for the men eliminates the hired man as a factor in the farmer's home and family. No matter how capable, how honest, or how many other good qualities a hired man may have, his presence is always a discordant element in the home, and tends to prevent that free and full intercourse between members of the family that should characterize every home. Why should a young man, engaged to work on a farm, claim all the social and other privileges which belong only to the family? But his presence in the home makes it almost necessary that he should be accorded some privileges of this nature, which must eventually lead to friction later on. A man with a home of his own could be entertained in a social way by the farmer's family, if they saw fit, and neither side would have cause for complaint. But under the plan where the hired man is in the home, he must receive some attention from the family or he will become discontented. Besides his presence there entails a large amount of extra labor on the women folks that they would not otherwise have to contend with.

Ontario Crops

A bulletin on crop conditions in Ontario on May 1st has been issued by the Department of Agriculture. But for the injury done by the Hessian fly in the south-western part of the Province, fall wheat would be classed as a most promising crop. Every county south of a line drawn from Hamilton to Sarnia has suffered considerably from the fly. Outside the counties affected by the Hessian fly, fall wheat looks well. Some injury was done by ice on low-lying or poorly-drained lands, but, as a rule, the crop presents a luxuriant appearance—the growth having been almost too rank in places in the fall—and several counties may be expected to give yields well up to the record.

Regarding methods for prevention of the ravages of the fly, Prof. Lochhead, in the report of the Ontario Agricultural College for 1900, which is now being distributed, says: "The long, open falls of the past two years have been very favorable to the breeding of Hessian flies. Reports of the dates of sowing of the fall wheat in the infested districts make it quite clear that the time of the sowing of the seed should be postponed till the last week in September. Where such late sowing has been done the crop has escaped the fly. It is often maintained that seed sown after the first week in September does not produce a yield equal to that produced from seed sown prior to that date; but, on the other hand, it does not take many Hessian flies to make a material reduction in the yield of an infested field."

All classes of live stock came through the winter in good condition, horses especially. Cattle were rather thin, but, on the whole, healthy. Sheep are reported to be in particularly fine form. Scab has disappeared, and lambs are plentiful and vigorous. While litters of pigs have been large, there have been heavy losses among the young pigs, and during the latter part of the winter many hogs suffered from a form of rheumatism, which, however, appeared to wear off when the animals were turned out in the spring. In most parts there was an

abundance of fodder for live stock during the winter. In regard to fat and store cattle, though reports are conflicting, it may be inferred that there are hardly as many of either class of animals to dispose of. It would also appear that all classes of live stock are receiving better care than ever before.

In Western Ontario fruit trees have come through the winter in splendid condition. In the counties along the St. Lawrence, an ice storm in the spring injured many of the trees. Orchards are reported generally to be coming into bloom well, and give promise of a good yield. A number of correspondents refer to the tent caterpillar, but this pest does not appear to be as common as it was a year ago.

Taking the Province over, spring seeding may be described as being half over on May 1st, though the snow and rain storm, extending from April 19th to 21st, gave spring operations a decided setback. Notwithstanding this drawback, the prospects for spring crops are, on the whole, encouraging.



The South American Cattle Trade

A Keen Rival of Canada and the United States

As a beef-producing country South America is destined in a very short while to outdistance the United States, if she has not already done so. In the three countries alone, the Argentine, Paraguay and Uruguay, there are now fully 30,000,000 cattle, as compared with 44,000,000 in the United States. While the cattle ranges of the United States are becoming more and more restricted each year, there are in these three South American countries vast regions suitable for cattle raising, which have not as yet been utilized. For example, in Texas cattle no longer roam over vast areas, but are practically kept in pastures, the grazing grounds being enclosed in miles upon miles of wire fences. In contrast with this a large region called the Chaco in Paraguay, has just been opened up to stock raising.

The prairies in this new region are clothed with a variety of good grasses, and the Chaco lands are acknowledged to be the best fattening grounds in all Paraguay. Good land can be bought in the Chaco for \$1,000 a league, and one league will support 1,000 cattle, and two herds of 1,000 each can be fattened on it in a year. All expenses of raising cattle there are ridiculously small compared with the expense in the United States. A man can put steers on the range in Paraguay, all expenses paid, at a cost of \$8.50 a head, and these he can sell when fattened for \$12.50 a head. Experienced cattlemen in the Chaco have cleared as much as \$8,000 the first year on an expenditure of \$10,500. They put in \$1,000 for land, \$8,500 for cattle, and \$1,000 for labor and other expenses. Living and labor in Paraguay cost about one-eighth as much as they do in the United States. The gauchos are paid \$3 a month in the Chaco, in the United States the cowboy's wages used to be \$30 a month. The gaucho's food, which is supplied to him, costs about \$3 a month. Cowboys are furnished with food costing \$10 a month.

Then that great land of cattle ranges, the Argentine republic, is as large in area as Ken-

tucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon and California together, and how much of the country still remains available for exploration may be judged from the fact that only about 6 per cent. of its 240 million acres of land available for agriculture—15 million acres—is under cultivation. The value of animals and their products exported by the Argentine increases at the rate of about 4 million dollars a year. Uruguay, though a comparatively small nation, has excellent grazing grounds, and four years ago was reported as having 5,881,402 head of cattle on its ranges, a number which has increased considerably since.

Southern Brazil joins with the Argentine, Paraguay and Uruguay in competing with the United States for the cattle trade. In the State of Rio Grande do Sul the cattle industry is already improving, and is growing every year. The country is favorable for cattle raising, labor is cheap and living costs little compared with living in the United States. Land for cattle raising purposes can be bought low and ports for shipping cattle abroad are easy of access. In 1896, 215,000 head of cattle were slaughtered in Rio Grande do Sul. In two years the number went up to 340,000 head, and in the last two years the increase has probably been as great in proportion. The number of British and German steamers running to South America is increasing, and the southern portion of the continent is no longer a negligible quantity with the raisers of cattle and sheep and the growers of grain in the United States. Great as has been the development of the cattle trade in South America of late years, its increase and amount of importance will be still more rapid with the increase of railroad facilities. Given equal facilities of transportation, and it is easy to see what a formidable rival the cattle industries of this country will have to contend with.

While this South American competition is perhaps of first importance to cattle raisers south of the line, it is not without interest to Canadians. Those associated with the development of the beef industry of this country must count on strong competition from that source. Though we are much nearer Great Britain and the market for beef products, it is a question even with this great advantage if we can successfully meet the competition that is likely to come from the southern continent in the near future. There is one way, however, by which Canada may gain to herself considerable trade through the development of the beef cattle industry of South America, and that is by supplying that country with breeding animals. As we have frequently pointed out, the Argentine and the other countries we have named, must of necessity import very largely of new blood in order to improve and maintain the standard of their herds. This, then, is Canada's opportunity, and some effort should be made to establish a trade in pure-bred stock with those countries. Eleven Canadian Shorthorns were reported to have been shipped from Hamilton last week for the Argentine. They were selected from several herds in the Province by a Mr. Bruce, who represents one or two large South American breeders. The total value of this shipment was \$14,700, and each animal was valued at over \$1,000. We will have fuller particulars in a later issue.

The Causes of Soft Bacon

In last week's issue we referred to the soft pork investigations that have been conducted by Prof. Shutt, of the Central Experimental Farm, Ottawa, during the past two years. A bulletin giving complete details of this work will be issued shortly. In the meantime, however, the following extracts from Mr. Shutt's evidence given recently before the Agricultural Committee on this subject will be of value to our readers:

"For more than two years we have been actively engaged in investigating the cause or causes of softness in pork—a most undesirable quality in material intended for the export bacon trade. The two series of experiments comprise nearly 300 pigs, all of which have been fed under a scheme of known rations, including corn, oats, peas, barley, beans, separately and in mixtures. The fat from above the loin and above the shoulder of these pigs has been examined in the chemical laboratory, and its relative firmness ascertained from an estimation of its olein—the fluid of fat—and a determination of the melting point.

"As we have only just completed this chemical work, and as there has not yet been sufficient time to collate and compare the voluminous data that have been accumulated, I am not in a position to-day to speak definitely on many points that we shall be able to furnish information upon later on. We may safely, however, make one or two deductions. Corn fed exclusively from start to finish has resulted in a very miserable growth and exceedingly soft pork. When, however, skim milk was fed with the corn a fairly firm pork was produced, but the fat was too thick for the export bacon trade.

"In a grain ration containing a sufficiency of protein or nitrogenous matter for growth, it would appear that increasing the proportion of corn tended to too great a deposition of fat and to softness. In a well-balanced ration it appears that about one quarter of the grain may be corn without injuring the quality of the bacon. The amount that can be used with profit and safety, both looking to production and quality, will depend upon the age and weight of the pig, and the character of the other constituents of the ration. The value and importance of skim-milk, especially for young and growing pigs, can scarcely be unduly emphasized. It makes thrifty pigs, and very much helps towards producing the class of pork required by the export and packing trade.

"Our experiments with beans show that, when used exclusively, they are quite unsuitable for feeding hogs for bacon purposes. The growth of the pig is meagre, the deposition of the fat small, and the quality of the fat extremely soft.

"A mixture of oats, peas and barley in equal parts has given excellent results, both as to the production of pork and the firmness of the fat. This

mixture has also been used with corn in varying proportions. The proportion in which it can be so used safely without endangering the quality of the bacon is probably about 25 per cent. of the grain ration.

"Peas have given an excellent quality of pork. There is no undue or excessive deposition of fat, and the fat is extremely firm."

These few extracts give some idea of the conclusions Prof. Shutt is likely to arrive at when the investigations are completed. Farmers should make a note of these, and govern themselves accordingly when formulating rations for their hogs. Feeders must learn to pay attention to the question of quality in pork. The investigations, both at Ottawa and Guelph, show that such grains as oats, peas and barley are splendidly adapted for the production of bacon of good quality, and, everything else considered, will produce it as cheaply as any other feed. These grains can be grown on every farm in this country without difficulty, and, if fed exclusively to hogs for bacon purposes, will in a large measure eliminate the soft quality from Canadian bacon.

Three New Books.

We are indebted to the Orange Judd Company, New York, for copies of three new illustrated works on agriculture recently issued by them. The first one is entitled "Plums and Plum Culture," and is a monograph of the plums, cultivated and indigenous, in North America; with a complete account of their propagation, cultivation and utilization, and is edited by F. A. Waugh, horticulturist to the Vermont Experiment Station. Apple growing, grape growing, peach growing and plum growing have become separate industries in the United States, and, to a very large extent, in Canada. Hence the importance of special works dealing with each branch of horticulture. Of these specialties plum culture is perhaps one of the most complicated, and consequently special treatment is advisable. Prof. Waugh is a well-known specialist in this line, and treats the subject in a comprehensive and original way. This work should prove of great value to plum growers. The price is \$1.50.

The second book deals with the well-known and common garden plant, rhubarb. The work is entitled "The New Rhubarb Culture," and is intended as a complete guide to dark forcing and field culture. It also shows how to prepare and use rhubarb, and is edited by J. E. Morse and G. Burnap Fiske. The former, who is an expert gardener, gives in detail the commercial method of forcing, together with the actual cost, yield and prices which have ruled for several years. In the second part Mr. Fiske treats of other methods of forcing, as well as systems of outdoor culture. The price of this book is 50 cents.

The third book, and which is perhaps of more general interest to the average farmer, deals with that important clover, "Alfalfa." It is edited by Secretary F. D. Coburn, of the Kansas Board of Agriculture. It contains practical information on the production, qualities, worth and uses of this valuable forage plant, especially in the United States and Canada. The writer in this practical treatise presents all the best that is known up to the present time, on the growth, uses and feeding value of alfalfa, thoroughly discussing the subjects in all their bearings, in language so plain as to be clearly understood even by those who were before entirely unfamiliar with this remarkable plant. Although in the main treating the matter in a general way, it is dealt with as well from the standpoint of each state where it has been experimented with, and gives the observations of both farmers and scientists there who have paid it closest attention. The price of this book is also 50 cents.

Value of Roots for Feeding.

According to the tables sent out by Professor Henry in *Feeds and Feeding*, the artichoke is the most valuable root for feeding, as, while it has but twenty pounds of dry matter in one hundred pounds, while the potato has more than twenty-one, it has more than double the amount of protein that the potato has, and its feeding value is reckoned at \$2.44 per ton, while potatoes are but \$1.65, and are not equal to parsnips, which are \$1.82. Next comes the sugar beet at \$1.42, the common beet at \$1.38, rutabagas at \$1.22, flat turnips at \$1.16, mangel-wurtzels at \$1.10, and carrots at the bottom of the list at \$1.06. Never having grown artichokes we have not known much about their value for feeding. All the others we have used, and our experience would rank them about as in the analysis, unless it were to change places with flat turnips and mangel-wurtzels. But the farmer has another matter to consider, and that is the cost of production. We believe we can grow, or any other man can, with a little trouble, four times as many rutabagas on an acre as he can potatoes, unless in a section like Aroostook County, Me., which is well adapted to potato growing, and in other like sections, and on any soil we can grow twice the weight of mangels that we could of sugar beets, and more pounds of common beets or flat turnips than of carrots, which, we think, give the least value per acre, as they show the lowest value per ton.

In Clover.

If a body meet a body,
Looking for the rye,
Should a body tip a body,
Or let the cuss go dry?
If a body see a body,
Pockets full of beer,
Should a body thus address him:
"Pass one bottle here"?



Ideal Farm Homes

This beautiful house of nine rooms, design number 54, can be built for about \$2,000. The blue prints and specifications show exactly what this price of \$2,000 is supposed to cover, but as the specifications comprise nearly twenty pages of typewritten matter, we have not space here to explain them fully. The blue prints consist of foundation and cellar plans; first and second floor plans; front, rear, and two side elevations.

To get a better idea of what the \$2,000 is supposed to pay for, would say that it pays for the house complete, with the exception of the plumb-

ing, hot air pipes, mantel, gas fixtures, and furnace; commencing with the excavation, building of the cellar, and putting in brick foundation. The specifications state that all work must be done in a workmanlike manner, and give the details for every point that could possibly come up.

All the material to be used in the house is to be of first quality. The cellar bottom is to be levelled off, well packed and covered with whole bricks, laid close on three inches of coarse sand, and the joints filled in with fine sand. In the rough lumber to be used no particular kind is specified, it being taken for granted that the studding and other rough lumber will be of the best quality that is the cheapest and best in the locality where the house is built.

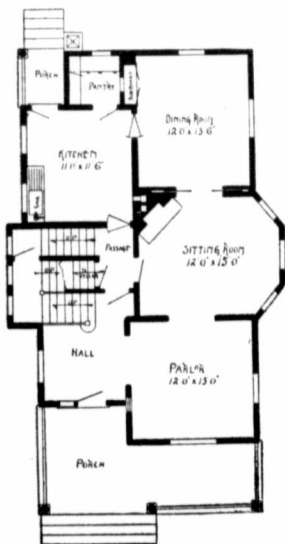
The general finish throughout the house is to be yellow pine. The siding can be poplar or basswood, and the architect has designated that building paper shall be used to cover the sheathing before the siding is put on. Clear white cedar shingles are specified, although this can be changed to any shingle that is used in the particular section of the country where the house is being built. The flooring specified is of a cheaper grade for the second floors, but white maple flooring is specified for the kitchen and pantry.

The house, when complete, has a very attractive appearance, as can be seen by the perspective view which we present. The rooms are well arranged, and are plenty large for the use. There is one thing about this house that is a great attraction to many, and that is its porch. A large porch, at certain seasons of the year, is one of the greatest comforts of a home.

Blue prints and specifications for this residence can be had at the office of THE FARMING WORLD for \$5.

The Glory of a Summer Garden.

The gladiolus is to the summer garden what the geranium is to the winter garden. It is of the easiest possible culture. It blooms with a certainty which endears it to the heart of the woman. Plant the bulbs from the first to the middle of May in a rich, mellow soil. Set them about six inches below the surface, planting from six to ten in a group.—*May Ladies' Home Journal.*



Does it Pay to Wash Sheep ?

The Views of Some Leading Sheep-Breeders on the Question

We continue the discussion of this question begun in last week's issue. So far the views of breeders as published are that the washing of sheep is neither necessary nor advisable, and in many cases is a positive injury to the animal. We would be glad to have the views of any of our readers on this question. The following are letters from two more breeders on this subject :

WASHING WILL NOT HURT A SHEEP.

W. H. Beattie, Wilton Grove, Ont., writes : " In regard to the washing of sheep before shearing I do not think it will hurt any sheep to wash it. The practice is more apt to hurt the man who does the washing than the sheep. I have, however, not washed a sheep in ten years, but I believe we would get more for the wool if it were washed, especially with the fine and middle wool sheep, as they do not get so dirty as the long wool sheep do."

CANNOT BUT BE INJURIOUS.

Mr. J. H. Jull, Mt. Vernon, Ont., writes : " In regard to the practice of washing sheep before shearing, I would say that it is neither advisable nor necessary. In fact, it is really cruel, and a damage to the sheep the way most breeders and farmers go through the operation. They drive their sheep one, two, or four miles to the washing place, and plunge them in the water for from five to ten minutes, and then let them out to lug home their heavy, wet fleeces. Could anyone think that such an operation would be anything but injurious to the sheep? If sheep require washing at all, and sometimes some of them do need it, they should be washed with warm water after they are shorn, kept in a warm place until dry, or if it were a very nice warm day they could be turned out in the sunshine. We had four this year in our flock of one hundred and fifty-three whose backs were very dirty. How they got so I cannot tell. The rest were clean.

"Unwashed wool sells for about two-thirds as much as washed wool, but there is no way that the breeder can devise to tell which pays better to have his wool washed or unwashed. The manufacturer, however, can ascertain what per cent. of scoured wool he gets out of washed and unwashed wool, and in these times of competition, he is likely to offer as high a price for the one as the other, according to the percentage.

"There is another loss the breeder sustains if he washes his sheep. He has to wait until the water is warm enough for the man who washes them to go into. Hence the sheep suffer a month or six weeks with their fleeces on, and lose some of the wool, and after washing a lot more wool is lost.

"We have not washed any sheep before shearing for eight years, following the example of a large breeder near us. The practice of non-washing has increased fast the last year or two. Today (May 6th) most of the sheep in this section are shorn unwashed. There is time and inconvenience saved, but we have to pay from one to two cents more per head to get them shorn.

"I have understood that in the United States dealers pay as much for unwashed as for washed wool when they intend to store it and wait for a raise in prices, as the unwashed wool will keep longer and better than if washed. But I do not know how true this is."

PREFERS SHEARING UNWASHED.

Mr. R. H. Harding, Thorndale, Ont., writes : "In reply to your favor, inquiring about shearing sheep, washed or unwashed, I might say that I favor shearing unwashed for several reasons. First, I can clip them at least six weeks earlier than they can be clipped if I wait to wash them, thereby doing away with the necessity of dagging them, and saving the loose wool that occasionally falls off at this season, also saving the wool that is commonly rubbed off on fence corners, briars, etc. Flocks are generally more or less troubled with ticks in the spring, and by shearing the flock early in April, what ticks are left on them will climb into the little lambs to get protection from the cold, then by dipping the lambs in about a week or ten days afterward, you practically get rid of the ticks. While the wool may not net you quite as much money as washed wool will, the average sheep will, I believe, be ten pounds heavier at June 1, than the sheep that carries its wool and sweats until that time.

"Of course, this is just one side of the question. As to finding a ready market for unwashed wool, if it became a universal practice among sheep men to shear unwashed, I cannot say. Everything considered, so long as I can get two-thirds as much per pound for unwashed wool as the highest price for washed wool, I will continue to shear unwashed early in April. I do not think it is injurious to the health of the sheep to wash them, providing they do not have to be driven too far to a suitable stream."

Lamb-Feeding Experiment.

Last week Clay Robinson & Co., Chicago, sold for the Illinois College of Agriculture 16 grade Shropshire lambs, fed for experimental purposes at the college station. They averaged 87 lbs., and were bought by Nelson Morris & Co., at \$5.25, highest price paid for lambs of their weight. The object of the test was to determine the

relative fattening value of various rations. With this end in view they were divided into four lots of four head each, which, for convenience, we designate as Nos. 1, 2, 3 and 4. Lot 1 was fed shelled corn; Lot 2, a ration composed of two parts shelled corn to one part gluten meal; Lot 3, equal parts of shelled corn and oats, while Lot 4 received oats alone. They were fed twice daily, morning and evening, consuming, on an average, two pounds of grain per head. Each lot had clover hay for roughage. Lot 2 (corn and gluten meal) made the largest gain in weight, while the carcasses, though second in percentage of dressed meat, ranked first in quality of flesh, in the judgment of the packing-house people. Lot 1 (shelled corn) showed the largest percentage of meat to offal.

The slaughter test showed the following results :

Lot.	Live weight.	Dressed meat.	Percentage.
1.	350 lbs.	194 lbs.	55.4
2.	360 lbs.	191 lbs.	53.1
3.	350 lbs.	170 lbs.	48.6
4.	330 lbs.	155 lbs.	47.

The sixteen lambs weighed 1,010 lbs. when purchased Jan. 29, and 1,390 lbs. when slaughtered, showing an average gain of 24 lbs. per head.

Food for Breeding Ewes.

Among the many good suggestions by Instructor W. J. Kennedy, of the Illinois Experiment Station, we find the following: There is no food so good for breeding ewes as clover hay, fed twice a day, and a liberal feed of whole oats for a midday meal. By a liberal feed I mean about one-half quart per ewe per day. Ewes thus fed will always thrive well and produce strong lambs. Too much corn has a tendency to make the ewes too fat, and thus produce weak lambs.

Every farm should have its flock of sheep, as they will do well on the wastes of the farm, such as the weeds in the fence corners, etc. The sheep is a scavenger, thus no farm should be without a flock. They produce two profits a year—one from their wool and another from their lambs—and they require very little extra labor in the way of care.

YOUNG LADY: arriving home after her first night at the evening continuation cookery class. "Oh, mother, if you only knew how well I got on. Why, I made bricks without straw!"

The lesson was bread-making.

"The late editor's wife is something of a humorist."

"Indeed?"

"Yes; took a line from his original salutation and placed it on his tomb-stone."

"What was it?"

"We are here to stay!"

The Sugar Beet World

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

EDITED BY JAMES FOWLER.

ONTARIO BEET SUGAR ASSOCIATION. OFFICERS FOR 1901.

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Sugar Beetlets.

Make your seed bed as fine as a garden by repeated harrowing and leveling, which usually should be done at right angle or diagonally from the plowing. It is very important that this part of the work be done thoroughly in order to get a good stand.

Care should be exercised in watching the drill when at work to see that it does not become clogged.

The beets want sunlight, and in planting north and south the sun certainly gets a better show as the leaves begin to spread.

If the soil is warm and moist seed will germinate in six or eight days, while with different conditions it may take from twelve to fourteen.

To insure both quantity and quality it is necessary that a full stand be secured, and this can only be accomplished, by using plenty of seed—not less than 15 pounds, and 20 under ordinary conditions would be still better. No one ever used too much seed, but there are hundreds who have used too little.

Get your seed in moist ground if possible. One thing to remember is that early planting ought to be somewhat shallower than later planting.

By commencing the cultivation very early not only will it be easier to keep down the weeds, but the plants will secure a more vigorous start.

It is not the quantity of land one has but the way it is used and handled that determines the success.

The farming of root crops is gardening on a large scale, requiring close and careful work, not only in preparation of the soil before planting the crop, but also in caring for the crop during the growing season.

Every farmer should be an experimenter. Of course there will be disappointments, and they will be expected, but only by experiment can the best results and least expensive methods be attained.

The man with agricultural inclinations and who has a large family, has

an advantage over his less favored, heretofore termed more fortunate brother who has few or no children, since he can reduce expenses very much by giving his boys, and girls as well, pleasant and profitable work during a part of their vacation. And while they are lessening expenses, they are also learning to be industrious, and that leads to thrift and enterprise.

The sugar beet pulp is going off freely at Lyons, N.Y., says the *Freemont News*. The demand increases from day to day as cattle owners learn of its true value as an article of food.

But the farmer is not the only one that is going ahead; the manufacturer who takes his crude product and converts it into those beautiful crystals is with him.

Purity is one of the greatest values to the manufacturers.

A beet sugar factory touched all classes of people, and helped all.

Likes the Crop.

Dr. Stone, of Bay City, and a gentleman who takes much delight in country life, will this season put in 100 acres of beets, for the Bay City factories, on his farm in this county. The doctor is a sugar beet enthusiast, and grew a large acreage last season.

Alvinston Also.

They have the sugar beet fever bad up Alvinston way. Joshua Sisler, who distributed the Government beet seed at Alvinston, says, in a letter to the *Aylmer Express*, that the farmers in that section are thoroughly alive to the importance of securing a sugar factory in that place, and are not going after it in any half-hearted way. They are contracting this year for several hundred acres of beets for a Michigan factory at \$3 a ton, and are taking from five to seventeen acres each. The farmers are signing contracts for a factory to be built at Alvinston just as fast as possible, and

a number of business men of the town are renting from 100 to 200 acres of land, and will raise beets on a speculation, hiring every bit of the work done.

Profitable Business.

Some of the profits which accrued to farmers in Michigan last year at the Caro factory, taken at random, were as follows: Product of two acres, factory paid \$154.30; from twelve acres, \$770.64; from six acres, \$481.84; from five acres, \$261.50; from three acres, \$244.33; from six acres, \$682.18; and so on in the case of 100 or more farmers. One man had ninety-three acres of beets, the factory paying him the snug sum of over \$6,190.

A Sugar Beet Harvester.

Mr. John R. Hyslop, of South Easthope, through his solicitors, Messrs. McPherson & Davidson, has been granted a patent for an ingenious contrivance in the way of a machine for harvesting sugar beets, mangolds, or turnips. The machine first cuts off the tops and then elevates the roots into a wagon. It is thought that the contrivance can be constructed at a price that would allow its being sold at \$50 or \$75, so that it will be within the reach of all farmers.

In view of the prospective sugar beet industry this invention should prove a valuable one, and as there is no such harvester in existence to-day, the invention, although it has been so recently patented, is attracting considerable attention, the German consul at Toronto having written asking for particulars regarding its construction and price. The back-breaking system now in use in the pulling of roots does not appeal to any person in any other way than as hard toil, and an invention such as this will be wel-

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Build and Remodel Beet
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Beet Seeds and all Neces-
sary Supplies.

comed by all farmers and will prove an incentive to the growing of roots to a greater extent.—*Beacon.*

The Safety of the Beet Crop.

At a meeting of farmers held at Newmarket, Ont., last fall, Mr. J. G. Hamilton, vice-president Oxnard Construction Co., New York, delivered an important address on the sugar beet question, from which we take the following:

There is no crop that the farmer can produce that will result more lucratively to him than that of raising sugar beets, provided that he does so on the proper soil and in an intelligent manner. It is the safest crop he can produce; it has less enemies; can withstand more dry weather; more rain; more frost; and is absolutely free from speculative influences, which attend nearly every other crop produced on the farm. Corn, wheat, oats, tobacco, cotton, hogs, and nearly every product of the farm is to-day unfortunately controlled by the speculative traders in our large cities, so, that where the crop is either large or small, the speculator knows it long before the farmer can market his crop, and he, and not the farmer, receives the benefit from speculation. In growing a crop of sugar beets for a factory, this question of speculation is absolutely eliminated; the farmer receives from the factory a contract to take at a specified price all the sugar beets he can raise, upon a stated number of acres of land; hence the only risk the farmer takes is as to what kind of an agricultural season he will have, and as the sugar beet grows under the ground, if the farmer will use intelligently the proper methods, it is nearly impossible for him to have a failure of his sugar beet crop, which, when it is ripe, he delivers to the factory, where the beets are tested, and he is paid for them, according to their saccharine contents.

The price paid for sugar beets varied according to the locality in which they are grown; in California they can be produced at a less cost by the farmer than in any of the more Eastern States, for when the rainy season in California is over, and the fields once cleaned of weeds, the entire work is done by horse power, and the crop absolutely assured. In Colorado and Utah, the farmers are meeting with immense success in raising a very heavy tonnage of rich beets with high purity. In Southern Colorado last year, many farmers produced as much as thirty tons per acre, and their beets running as high as twenty per cent. and over. These beets are raised on land under a perfect system of irrigation, and the countless days of beautiful sunny weather gives the beets a high saccharine content. It requires about four months for the sugar beet to mature after the seed is planted—when the crop is ready, the beets are harvested, and those which are not taken into the factory at once, are siloed on the fields where they are produced, and brought to the factory from time to time. The

factories' contract with the farmer, arranging to pay more for December, January and February deliveries of siloed beets than those delivered during September, October and November, and also giving the farmer who grows a large number of acres of beets, the same ratio of deliveries as the one who shall grow a less number of acres; in other words, treating every farmer alike. When these beets are ready for delivery, the farmers select a chemist and weigh-master to represent them, who has the privilege of checking all the weights, tares and tests made by the employees of the refinery.

All the refineries that I am connected with furnish to the farmer the seed that he uses at cost price, deducting the cost of same from the first delivery of the farmer's beets. We also have an Agricultural Department connected with each of our plants, which gives to the farmer, free of charge, agricultural advice; selects the seeds best suited to the land to be planted; aids him in selecting and procuring, at the lowest possible cost, the most suitable and improved agricultural implements; and in a word, helps him in every way possible to make a success, realizing that he is practically a partner with the factory. The better the beets produced, the better is the sugar, and the more easily and economically can it be extracted. Therefore, in starting out to develop this industry, the capitalist must recognize the importance of paying to the farmer a figure for his beets which shall make the crop a profitable one to raise, and he must be positively sure that the right quality of beet in an abundant quantity can be counted upon, that the factory may have a full run. The farmer must also recognize that the factory takes a very large risk, for while the farmer's risk is divided among many, and under ordinary conditions cannot prove a failure, the factory may, on account of poor beets or a short run, or a low sugar market, meet with temporarily much heavier financial loss. The machinery of a properly built and well equipped factory costs a great deal of money; it wears out, and it is very expensive to carry a plant over a dead season; many high salaried men have to be engaged by the year; there is insurance, taxes, heavy wear and tear, and

very many expenses to be taken into consideration; therefore, a farmer should realize that a plant cannot be successful that pays an unfairly high price for the raw material (the beets). In the case of the so-called "Sugar Trust" they buy their raw material at a time of the year when the new crop of sugar is being pressed upon the market from all sugar-producing countries, and they take advantage of the low prices in the raw sugar market, and buy their raw sugars at such times as in their judgment would seemingly be most to their advantage. With the sugar beet sugar refinery it is quite different, for when they sign the contract with the farmer for his beets they have fixed the price of their raw material. Incidentally I may say here, that the interest of the "Trust" raw sugar refineries is to procure their raw material from sugar-producing countries at the lowest possible cost; hence they would like the raw sugar to come in free of duty, while they desire a high tariff on the refined article; for a "Trust" sugar refinery simply takes the raw sugar, melts it and turns it white; while a sugar beet sugar refinery takes the beet from the farmer and turns it into a standard granulated sugar; therefore the interests of the sugar beet sugar refinery would naturally be to have a high tariff on both raw and refined sugars.

Carbohydrates.—The nitrogen-free extract and fibre are often classed together under the name of carbohydrates. The carbohydrates form the largest part of all vegetable foods. They are either stored up as fat or burned in the body to produce heat and energy. The most common and important carbohydrates are sugar and starch.

Fibre, sometimes called crude cellulose, is the framework of plants, and is, as a rule, the most indigestible constituent of feeding stuffs. The coarse fodders, such as hay and straw, contain a much larger proportion of fibre than the grains, oil cakes, etc.

Fat, or the materials dissolved from a feeding stuff by ether, is a substance of mixed character, and may include besides real fats, wax, the green coloring matter of plants, etc. The fat of food is either stored up in the body as fat or burned to furnish heat and energy.

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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.

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

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.
 A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.
 A member of the Sheep Breeders Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 8,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.
 A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

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

List of Stock for Sale.

DOMINION CATTLE BREEDERS' ASSOCIATION.

Shorthorns.

Birdsall, F., Birdsall.—Heifer; heifer calves; bull calf.
 Bonnycastle, F. & Sons, Campbellford.—Yearling bull; bull calves; cows; heifers.
 Bright, J., Myrtle.—10 bulls and bull calves, 5 to 22 months; heifers and young cows.
 Douglas, J., Caledonia.—5 bulls, 7 to 17 months; young cows and heifers.
 Gallagher, R. & Son, Perm.—3 bulls; 5 cows; 6 heifers.
 Graham, H. C., Ailsa Craig.—2 bulls, 8 and 18 months.
 Sibbald, F. C., Sutton West.—3 bulls, 13 and 14 months; 3 yearling heifers; 3 heifers, 2 years.
 Weber, L. H., Hawksville.—3 bulls, 10 to 12 months; 2 heifers, 1 and 2 years; 2 cows.
Ayrshires.
 Reid, R. & Co., Hintonburg.—5 bull calves, 1 to 4 months.
 Smith, W. M., Fairfield Plains.—2 bull calves, 4 and 8 months; 4 cows.
 Taylor, F. W., Wellman's Corners.—6 yearling bulls; 3 bull calves; 4 heifers, a few weeks old.
 Yuill, J. & Sons, Carleton Place.—3 bull calves under 8 months; 5 females, all ages.

Jerseys.

Birdsall, F., Birdsall.—Bull, 9 months.

Herefords.

Brent, G., Watford.—3 bulls, 12, 18 and 22 months.
 Stone, F. W. Stock Co., Guelph.—4 bull calves, 10 and 12 months; cow and heifer calf.
Holsteins.
 Gifford, A., Meaford.—2 bull calves, 8 months.
 McGregor, J., Constance.—2 bull calves, 4 and 7 months; bull, 2 years; 4 cows, 4 to 6 years; 2 heifers, 1 year.
 Smith, S. E., Dundas.—Yearling heifer; 2 heifer calves; bull calf.
Galloways.
 McCrae, D., Guelph.—3 young bulls; 20 cows and heifers.

Polled Angus.

Phillips, F. W., Oakville.—Young and matured stock, both sexes.

DOMINION SHEEP BREEDERS' ASSOCIATION.

Cotswolds.

Bonnycastle & Sons, F., Campbellford.—7 shearing rams.
 McCrae, D., Guelph.—16 shearing rams; 20 shearing ewes.

Shropshires.

Switzer, N. H., Streetsville.—3 yearling rams; ram, 2 years; 7 yearling ewes.
 Yuill, J. & Sons, Carleton Place.—Ram, 2 years; ram, 1 year; ram lambs; ewes, all ages.

Southdowns.

McEwen, R., Byron.—Aged ram; 2 yearling rams; 15 yearling ewes.

Leicesters.

Armstrong, G. B., Teeswater.—Rams and ewes, all ages.
 Douglas, J., Caledonia.—Shearling ewes.

Dorset Horns.

Harding, R. H., Thorndale.—Stock, all ages.
 Phillips, F. W., Oakville.—Young and matured stock, both sexes.

DOMINION SWINE BREEDERS' ASSOCIATION.

Yorkshires.

Barr, David, Jr., Renfrew.—70 pigs, both sexes, 1 to 9 weeks; 7 sows, 8 months; 9 sows and 1 boar, 3 years.
 Phillips, F. W., Oakville.—Young and matured stock, both sexes.
 Reid, R. & Co., Hintonburg.—Young pigs; 2 boars.
 Thurston Bros., Oak Heights.—Sow, 13 months; pigs, both sexes, 2 to 4 months.

Berkshires.

Bonnycastle, F. & Sons, Campbellford.—Young pigs, 6 weeks.
 McCrae, D., Guelph.—Young brood sow.
 Reid, R. & Co., Hintonburg.—Young pigs; 2 sows, 6 months.
 Yuill, J. & Sons, Carleton Place.—Young pigs, both sexes.

Chester Whites.

Birdsall, F., Birdsall.—Pigs, 8 weeks.
 Harding, R. H., Thorndale.—Pigs, 2 months.

Tamworths.

McDonald, W. R., Ridgetown.—17 pigs, 1 to 4 weeks, both sexes.

Ritchie, W. G., Greenock.—6 boars and 4 sows, 5½ months; 10 boars and sows, 6 weeks.

Reid, R. & Co., Hintonburg.—Young pigs; 10 sows, 6 to 8 months.

Smith, W. M., Fairfield Plains.—Boar pigs.

Poland Chinas.

Smith, W. M., Fairfield Plains.—Boars and sows, all ages.

Duroc Jerseys.

Smith, W. M., Fairfield Plains.—Sows, all ages.

FARM HELP EXCHANGE

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, if person wishing to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to engage and references, age, particular department of farm work in which a position is desired, wages expected, and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.
 Every effort will be made to give all possible assistance, to the end that suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

Help Wanted.

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

Man wanted to work on a farm in York County, also a girl to do housework. Apply to Jas. White, Wexford, Ont. b

Herdman wanted for stock farm in Eastern Ontario. Must be a good milker and one who understands dairy cattle and pigs. Wages, \$35 per month to capable man. No. 809. b

Domestic Help Wanted.

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

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

Housekeeper wanted on a farm in Ontario County. Very small family. No. 810. b

Housekeeper wanted on a farm in Brant County, where cows are kept, but no butter made. The farm is situated about one mile from the village. No. 811. b

Middle-aged woman or girl 15 or 16 years of age wanted to work on a farm.

Steady employment and good home. Apply to Mrs. Michael Drumm, Brookside, Ont. b

Housekeeper wanted for farm home, where there are six in the family. Must be honest and truthful. No. 813. b

Housekeeper wanted on a farm in Perth County. Housework light. Two inmates, self and man. Will have to milk and take charge of poultry. Must have good health, also honest and trustworthy. Will pay \$9 a month to a suitable person. Middle-aged woman preferred. Good house. Give references. No. 812. b

Situations Wanted.

Situation wanted on a farm by a young man 22 years old, who is active, strong, and has had considerable experience. Wages required, \$15 per month with board and washing. No. 932. a

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 references.

Position wanted on farm out West, by young man 18 years old. No. 931. b

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

Farmers' Institutes.

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

G. C. CREELMAN,
Superintendent Farmers' Institutes.

Annual Meetings.

Prof. H. L. Hutt, O.A.C., Guelph, will conduct meetings in orchards at the following places:

York, East, Scarboro, June 4th.

Simcoe, Centre, Craighurst, June 5th.

Northumberland, East, Trenton, June 11th.

Bruce, South, Walkerton, June 18th.

Grey, Centre, Clarksburg, June 25th.

Essex, South, Leamington, June

Wentworth, South, Fruit Stations, June 20th.

The following Institutes reported too late for publication in last week's GAZETTE: West Elgin will hold their annual meeting on June 8th at Dutton, North Essex on June 12th at South Woodlee, and Welland at Welland on June 4th.

The date of Weston meeting has been changed to June 4th, and Agincourt to June 5th.

Farmers' Institutes of Ontario, 1900-1901.

Report of the Superintendent.

In presenting this, my second annual report, it again affords me pleasure to record a successful and progressive year's work. There has been a decided increase in membership; unusual interest shown in the meetings and a generally increased desire on the part of the farmers of the province for further instruction on matters pertaining to farm life and work.

A NEW DEPARTMENT.

In order that the printing of the sessional papers may not be delayed, the Premier has requested that hereafter our report should be published early in the year, rather than in the autumn, as has been the custom heretofore.

It has been usual to publish a report of each local Institute in detail, but as these reports are prepared at the annual meetings which do not take place until June, it is not possible to publish them at this time. It is proposed, however, to publish these statistics in our annual bulletin which is issued about the first of November.

ANNUAL MEETINGS.

Arrangements have already been made for a number of the Institutes to hold their annual meeting at the nearest Fruit Experiment Station. The directors of these stations have entered very heartily into the project, and we expect that the Institute members will be instructed as well as interested in the demonstrations of pruning, grafting, budding and spraying at this meeting.

POULTRY.

At a number of meetings held in different parts of the province during the past winter, poultry has been the special subject for discussion. In order to obtain reliable data a series of poultry experiments were conducted under the joint auspices of the Farmers' Institute and the Ontario Poultry Association. A full report of these experiments will be found in the report of the secretary of the Poultry Associations.

At these special poultry meetings Mr. W. R. Graham, manager of the Poultry Department of the Ontario Agricultural College; Prof. A. G. Gilbert, of the Experimental Farm, Ottawa; Mr. J. E. Meyer, of Kossuth, or Mr. G. R. Cottrell, of Milton, led in the discussions. The meetings were all of a practical nature, the speaker having live birds before him which were afterwards killed, plucked and dressed, according to the requirement of the home and foreign markets. These poultry meetings became so popular that we have already many requests for similar meetings next year, and as there seems to be a rapidly increasing trade for this form of farm produce, we propose to continue special poultry meetings next season.

HORTICULTURAL SOCIETIES.

At the request of the Ontario Fruit Growers' Association you saw fit during the past year to transfer the lecture work in connection with the Horticultural Societies to the Department of Farmers' Institutes. We have arranged and held thirty successful meetings. In the programme of these meetings some changes were made. Instead of one speaker as heretofore, two delegates were sent; one lady and one gentleman, and whereas up to this time evening meetings only were provided for in each place, it was arranged this year that the delegates should address the school children in the afternoon. Several secretaries have written to us to say that the innovation has been a most pleasing one, and that they hope the same arrangements will be made again next year.

WOMEN'S INSTITUTES.

Last June we addressed a letter to the women of Ontario asking their co-operation in the formation of Women's Institutes, as far as possible one in each riding, as the Farmers' Institutes are now. We hoped by interesting the officers of the Farmers' Institutes in the work to see at least a dozen Women's Institutes organized during the year. We were hardly prepared, however, to see the ladies take the matter up so enthusiastically, and we are pleased to report that thirty-one Institutes are now organized and holding meetings once a month. Some of these organizations have already over one hundred members, and are doing excellent work.

A special report was published for them this year, and their members also received a copy of the report of the Experimental Union, which contains the addresses delivered by such well-known ladies as Miss E. L. Richards, of Boston, Mass.; Mrs. Hoodless, of Hamilton; Miss Laura Rose and Miss B. Maddock, of Guelph, during the time of the annual meeting of the Union at Guelph in December.

EXCURSIONS TO ONTARIO AGRICULTURAL COLLEGE.

Many thousand farmers again took advantage of the cheap excursion rates and visited the Agricultural College during June. The popularity of this institution continues to increase year after year, and already every date between June 11 and 30 inclusive (Sundays excepted) has been secured by some Institute for an excursion this year.

PROVINCIAL WINTER FAIR.

We started early last year to advertise the Provincial Winter Fair and to endeavor as far as possible to secure the attendance of a large number of Institute members. The Fair Board allowed each Institute the privilege of free admission to all its members on payment of five dollars. Thirty-four Institutes took advantage of this offer and 1,518 members passed through

the gates. We have heard nothing from these members but the highest praise of the management of the Fair and the educational phases thereof.

All of the speakers who were to address Institute meetings during the winter also attended the Fair, and the annual meeting of the Experimental Union, which was held at the college during the same week.

A special programme was provided for the Institute workers, and the following speakers delivered instructive addresses, viz.: The Hon. Minister of Agriculture for Ontario; Dr. James Mills, President of the Ontario Agricultural College; Prof. I. P. Roberts, of Cornell University; Mr. F. W. Hodson, Live Stock Commissioner; Profs. G. E. Day, J. B. Reynolds, H. H. Dean, C. A. Zavitz, and W. R. Graham, of the Ontario Agricultural College; Mr. Thomas Southworth, Director of Colonization and Forestry for Ontario; Mr. Thomas Crawford M.P.P.; Mr. G. W. Clemons, St. George, and Mr. Dan. Drummond, Myrtle.

EXTENSION OF THE WORK.

One new Institute was organized during the past year, namely, "West Nipissing." The Superintendent attended the organization meeting at North Bay, and afterwards meetings were held at Warren, Sturgeon Falls, North Bay, and Cache Bay.

This a portion of New Ontario where considerable settlement has been made within the last few years, and our efforts to help them in the way of better methods are being appreciated.

Special meetings were also held at Port Arthur, Fort William, and the adjoining settlements of Murillo, Haymer, and Slate River. A splendid meeting was also held at Dryden in March, 170 people being present.

SEED FAIRS.

Four Institutes, namely, East York, South Wellington, West Wellington, and South Grey, have each established an annual seed fair, in March, which is reported as a supplementary meeting. The farmers of the vicinity bring in their best samples of grain, and each sample is labelled with the owner's name and address, the amount he has to sell, and the price at which it can be secured. A competent judge awards the prizes and gives his reasons for doing so. A practical grain grower gives a talk on the best varieties of grain for that particular section, and the members arrange to buy or exchange these varieties with one another before seeding time.

COLD STORAGE.

The subject of cold storage and transporting and marketing of our perishable products has been a favorite theme at Institute meetings this year.

During the meeting of the Experimental Union all of the delegates visited the new cold storage plant at the Agricultural College, and were instructed in the different processes of refrigeration by the professor of physics. They also inspected the special car, which was fitted up under your direction for the carrying of per-

ishable fruit from the Niagara peninsula to Montreal for shipment to the Old Country. Each member of the staff also received copies of the Hanrahan Pamphlet, and the Pamphlet on cold storage and the utility of collecting stations. They were thus well equipped for their work, and from reports received much valuable information on this subject has been distributed, and has been highly appreciated.

ASSOCIATION OF CANADIAN FAIRS AND EXHIBITIONS.

At the last meeting of this association, held at the Old Court House, Toronto, on February 20, 21, 1901, the Superintendent of Farmers' Institutes was appointed assistant secretary and editor of the association. A number of valuable papers were read and some excellent addresses delivered by the former superintendent, Mr. F. W. Hodson, Mr. C. C. James, Capt. McMaster and others. We are now at work upon the report, which we hope to have ready for publication at an early date.

All of which is respectfully submitted. G. C. CREELMAN,
Superintendent.

Poultry Production for Boys and Girls

By G. R. Cottrell, Milton.

Our fisheries add annually to our wealth about \$20,000,000, our mines \$40,000,000, the forests about \$80,000,000, and agriculture no less than \$600,000,000, or four times as much as the other three sources of wealth combined, and yet we fall below the mark in supplying the English markets.

In Western Canada we have a tract of country capable of settlement by millions of people, but before these districts can be built up with manufacturing towns it must first be settled with the agricultural classes. "Perfect agriculture is the true foundation of trade and industry. It is the foundation of riches of countries," as Seibig tells us. Prof. C. C. James also says: "Before preachers preached, doctors practised, lawyers argued, and teachers taught, man began to produce his daily bread by the sweat of his brow—this ancient order preceded that of dukes and earls, kings, queens, presidents, monopolists, magnates and political losses. If length of years, antiquity and priority add importance to any calling agriculture stands first and foremost."

BOYS ON THE FARM.

During past years it has been quite common for many farmers' sons to leave the farm and secure employment in towns and cities, which has certainly been disastrous to Canada's welfare. It is unfortunate that the boys should lose interest in what is the foundation upon which all the wealth has been built.

The question has often been asked why the farmer's son loses interest in farm life, and the answer is usually—"Because they never have anything of their own to give them an interest." Now, you will say, "I cannot give them

the revenue from my horses, cows, pigs," etc. But there is yet another interest connected with the farm; one that takes less capital to begin with, and one that looks promising and encouraging to any person to start in, either old or young, and that is the poultry industry.

During the past four or five years poultry raising has developed in a marvellous manner. The poultry raiser recognizes with a clearness hitherto unknown the great importance of producing the highest or superior quality of poultry flesh. Poultry raising has been put on a scientific basis, methods have been revolutionized, and with the aid of the Government, and otherwise, assistance of a practical and scientific nature has been extended to those who want it. The output of this province has greatly increased, not only for home consumption, but also for the great English market. And yet there exists a class of people who think this industry of little or no importance.

THE EXTENT OF THE POULTRY INDUSTRY.

The poultry output of the United States far exceeds the gold output, and is away ahead of the wheat product and the cotton product. England imports every year over \$20,000,000 worth of eggs, of which Canada supplies but \$1,000,000 worth. The poultry and game importation amount to \$3,500,000 of which Canada contributed only \$30,000. We also learn that England imported \$24,000,000 worth of cheese. Here we find that the Dominion furnished more than half of this importation, the market being gained by cheese of superior quality. It is just in the same way that the poultry trade can be increased.

Now, if the farmer's time is so taken up with the other interests of his farm, that he cannot pay attention to this branch, let him delegate this department to the boys and girls, and they will surprise him in a very few months by their management. Do not be afraid to give the boys an opportunity along this line, for should they meet with one or two reverses—as a great many prosperous men do at first—the capital invested was not much, and it will not take a great deal to start them up again. Were this practice followed the boys and girls would not only help the poultry industry, but the experience and pleasure derived would be helpful to the boys and girls of our farming community. I have no doubt that in many cases where the boys are inclined to leave the farm and look for occupations in the cities, they might be led to remain, by the interest created, as they watched their little business grow, and learned to admire the hen. In all probability as they grow older their interests would reach out to other stock, and it would be unreasonable to believe that the girls would not take an interest in poultry, because to their sex belong the great admirers of the birds of the air, of which 170,000,000 are slaughtered every year for the decoration of the ladies' bonnets.

To be continued.

Farm Implement Department



Grounds and Fountain in Russian garden supplied by Brantford Windmill.

Brantford Windmills in Russia

We are pleased to be able to present our readers with two interesting engravings, reproductions from photographs sent from Russia. The second shows a Brantford steel windmill and tower, supplied Mr. Trepani, at Charkow, Russia, by the Goold, Shapely & Muir Co., Limited, of Brantford, Canada, and used by him to pump water for his house and garden. The first illustration is of a small portion of the garden and fountain which is supplied with water from the tank in tower with windmill.

Mr. Harry Gaffney, of Brantford, while in Russia last year for the Massey-Harris Co., was shown Mr. Trepani's outfit, and also his fine garden, which Mr. Gaffney says is one of the most beautiful he ever saw. Mr. Trepani expressed great pleasure as to the durability and good working qualities of his Canadian windmill and sent the photos to the Goold, Shapley & Muir Co., Limited, with a hearty commendation of the outfit.

The New Butter Wonder.

The Columbia air churn, as it is called, is a perfect marvel of scientific and inventive skill, simple in construction, and unlike anything yet invented for butter-making. It operates on an entirely new and modern principle, and is guaranteed to produce from 15 per cent. to 50 per cent. more butter, of a higher grade and better keeping quality, from sweet or sour milk or cream, in one-third the time with less labor and greater ease and facility in washing, than any churn ever constructed.

In the Columbia air churn the separation of the globules of butter fat from the cream is accomplished by a steady stream of air being drawn down through a hollow wooden cylinder revolving at a high speed.

This creates a vacuum, which draws the cream into contact with the air, and immediately liberates the butter granules from the albumen sacs, and by reason of the greater specific gravity the albumen sacs are forced to the

bottom of the churn apart from the butter, and are drawn off in the buttermilk. The butter granules, being lighter, float to the surface, and are gathered together in firm, solid granules of equal size.

To fully appreciate the vast importance of this new invention, it is necessary to consider that casein or albumen is a substance found in all milk or cream. The presence of casein in the butter roll is plainly indicated by the white, curdy streaks; it very soon becomes rancid, thereby spoiling the butter.

It is claimed that through a perfect aeration not only is the casein eliminated from the butter, but all offensive taints, and other foreign substances as well. Upon the absence of casein and albumen depends the high grade and keeping quality of the butter. A large number of diseases are often introduced into the human system by impure and improperly made butter.

The inventor of this churn says: "In my early experience as a butter-maker I became convinced that pure, wholesome, healthy butter could not be produced by friction, concussion or agitation churns, which beat the butter fat and casein or albumen sacs into a greasy mass; to devise a churn or butter machine which would liberate the butter fat in the quickest possible time, and by the same operation separate the unsavory, unhealthy casein, has been the work of my life, and that this object has been accomplished in the Columbia air churn is well demonstrated by the endorsements of the most scientific and expert butter-makers.



Brantford Steel Windmill and Tower in Russia.



The Columbia Air Churn.

"This churn likewise proves the fallacy of the theory that long churning is the best, the purest butter being produced from sweet or ripened cream in less than seven minutes.

"A demonstration was given before some of our most prominent dairymen in this city, and they were surprised at the results obtained from cream almost direct from the separator."

To meet the growing demand on the part of the people, who realize the importance of this [new] invention, the Columbia Air Churn Co. of Canada intend to start a factory for the manufacture of the churn, which will turn out between one hundred and one hundred and fifty churns per week, giving employment to a large number of men, which will no doubt be a welcome addition to our industries. At present the firm have their head office in the Confederation Building in Toronto, where the churn can be seen at any time.

Lining and Roofing Buildings.

Paper as a Material for this Purpose.

In dealing with this subject the writer will confine himself exclusively to its application to the building trade of Canada. Commencing with the foundations of our buildings, we find practical

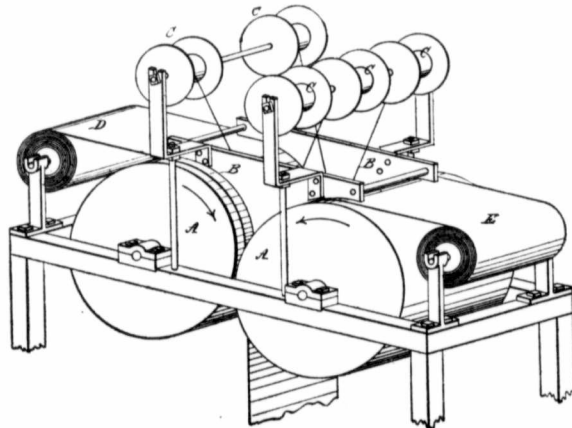
ly no change in construction since the early settlement of the country, stone being still used for the better, and cedar posts for the inferior class of buildings. The rough logs used by our forefathers have given place to lumber, brick and cut stone in the construction of the walls, while for roofing our buildings, the old fashioned but durable split shingles have been superseded by those of the sawn variety, in addition to iron, tin, steel, tarred paper, slate, and tile. Although to the uninitiated the roofing of a building appears a very simple matter, it is a well established fact that architects, builders and property owners, have been searching in vain for many years for a satisfactory material with which to cover our roofs. A material which would prove satisfactory in a country of moderately even temperature is practically worthless in Canada where the temperature varies fully 120 degrees, thereby causing immense contraction and expansion in any material susceptible to the effects of heat and cold.

What we require in Canada for covering the majority of our buildings, particularly in the country, is a fire-proof durable roofing material, not affected by heat or cold, easy to put on, and reasonable in price. Of all the different roofing materials at present available, none would appear to meet these requirements so well as tarred felt paper, or roofing felt, as it is generally called, when used for covering buildings. By firmly cementing together, with waterproof composition, three sheets of tarred felt paper, a roofing material is obtained, consisting of these three sheets above referred to, and two interposed layers of waterproof composition, exclusively of the coating of this latter material, which is applied to the roofing after it has been put on the building. This material is called ready or prepared roofing, from the fact that it is sold in rolls containing sufficient to cover 100 square feet of surface, and has simply to be nailed on the roof, no skilled labor or expensive outfit of tools being necessary.

AMERICAN FIELD AND HOG FENCE
FULLY GUARANTEED.
 Best steel wires heavily galvanized. Strong, economical, efficient, durable. Local agents everywhere. If no agent in your town write to the makers.
 American Steel & Wire Co., Chicago or New York.

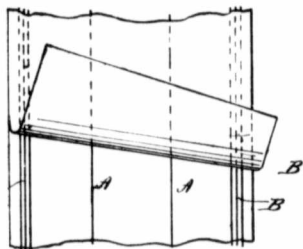
The advantages claimed for this ready roofing are that it is cheap, durable, sanitary, fire-proof, easy to apply, and a perfect non-conductor of heat and cold. The tarred felt paper used in the manufacture of this roofing should be made from pure woolen rags, as the coal tar with which it is saturated contains a small percentage of carboic acid, and which is injurious to paper made from any other material, with the exception of wood pulp, and the latter is too hard for roofing purposes.

The popular favor with which the ready roofing is meeting may be estimated from the fact that over 100,000 rolls were manufactured and sold in Canada during the past year. The public have been quicker to see the good qualities of paper for lining buildings than they were to appreciate its value for roofing purposes, and there are now very few wooden houses erected which are not lined with paper. In Manitoba, the Northwest Territories, and the northern portion of Ontario it would be impossible for the people to live during the winter months in wooden houses, were the latter not lined with two or three thicknesses of building paper, which renders them more comfortable than the average brick residence of Western Ontario. It has been proved beyond doubt that even one thickness or sheet of tarred building paper will exclude more cold and dampness than an average eight-



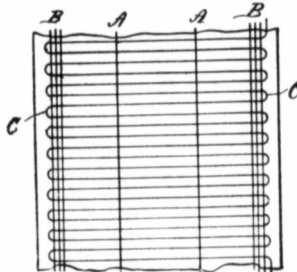
Cut No. 1.—Machine used for manufacturing Wire-Edged Ready Roofing.

inch brick wall, while the cost of the best qualities of building paper does not exceed twenty cents per 100 square feet. It is a somewhat paradoxical statement, but a true one nevertheless,



Cut No. 2.

that building paper will exclude cold in the winter and heat in summer, thereby affording us a more even temperature in our houses than we can obtain by any other means within the reach of the ordinary individual. This double and apparently impossible benefit derived from the uses of building paper is due entirely to its being



Cut No. 3.

an almost perfect nonconductor of heat and cold, and for this reason all modern refrigerators and cold storage buildings are lined with waterproof paper.

For general use, building paper made from wood pulp gives the best

tarred felt paper should be used, both on account of its non-conductive qualities, and also because it will protect the building in case of leakage.

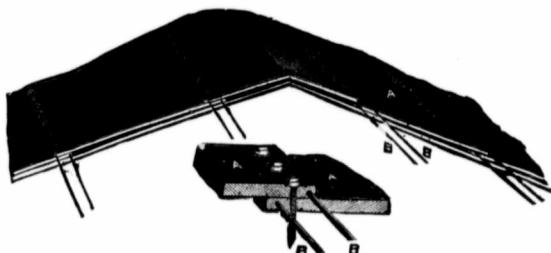
The accompanying cuts show some of the recent improvements for strengthening building papers and ready roofing felts, by the insertion of wires of strong linen threads in course of manufacture. Cut No. 1 shows one of the machines used in the manufacture of the above mentioned material. Cuts No. 2 and 3 show a modern building paper consisting of two sheets of chemical wood pulp, and an interposed layer of waterproof composition, in which strong threads have been incorporated for strengthening purposes. Cut No. 4 shows an improved quality of ready roofing in which wires have been inserted at both edges, thereby making it impossible for the roofing to tear from any cause whatever. In conclusion, I would urge those interested to thoroughly investigate the merits of paper for building purposes, as they have much to gain and nothing to lose by so doing.

—J. W. P.

The Agricultural Engineer.

As from the surveyor, the miner, the mechanic, the electrician have been evolved the civil, the mining, the mechanical and electrical engineer, respectively, so from the agricultural machinist, and to superintend the manufacture of agricultural implements and machinery, has been evolved the agricultural engineer.

Let us now consider what his training should be for the position which he is competent to fill. From what has already been said, it is evident that the agricultural engineer is a skilled mechanic who by natural genius, by acquired skill and judgment, and by much study either in the school of experience or in one of our technical schools, has risen above the ranks and has become a leader, and is competent to design, construct and manufacture new machinery and appliances which shall successfully fill the needs of the agri-



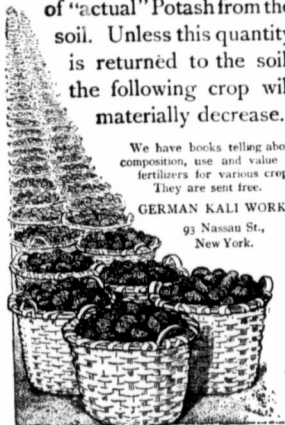
Cut No. 4.

satisfaction, as it can be used untarred when necessary without danger of its turning musty from the moisture absorbed from the walls of the building. Unless in rare cases, however, it is always best to use tarred building paper, as the latter is more sanitary, air-tight, durable and vermin proof than the untarred kind. Under shingles, iron, tin or slate a heavy sheet of

culturist. In a word, he is a mechanical engineer whose specialty is agriculture, and belongs to the same class or family as do the electrical, locomotive, or marine engineer, and should be the special subject of consideration of our

One Teaspoonful of Pain-Killer in hot water sweetened will cure almost any case of flatulency and indigestion. Avoid substitutes, there is but one Pain-Killer, Perry Davis' 20c. and 50c.

Two hundred bushels of potatoes remove eighty pounds of "actual" Potash from the soil. Unless this quantity is returned to the soil, the following crop will materially decrease.



We have books telling about composition, use and value of fertilizers for various crops. They are sent free.

GERMAN KALI WORKS,
93 Nassau St.,
New York.

agricultural and mechanical colleges. He should receive not only a most thorough grounding in the underlying principles of engineering sciences, but should in his senior and post-graduate years take such work in agriculture as will enable him to understand and to appreciate the problems of the agriculturist. He should be given a much more thorough course in shop work and in drawing than is given to the average agricultural student, because he must be something more than simply "handy with tools;" he must be as nearly a journeyman mechanic as it is possible for the schools to make him, and he must understand the principles underlying all shop manipulations and processes. As manufacturing may be his end, economics, labor problems, cost accounts, as well as problems in the mechanics of manufacture, should be carefully studied. Under mechanism should be included the study not only of those mechanisms now found on agricultural machinery, but the principles which will enable him to design new and adapt old mechanisms to new ends. Under the dynamics of machinery should be included not only the subject of animal mechanics and the draft of vehicles, plows, etc., but the dynamics of transmission machinery.

Now that steam boilers and steam and gasoline engines are so generally used in the field, on the road, and in the factory, it is desirable that the man who is to superintend them should have more than a superficial knowledge of them and of their construction and needs. The fellow who simply does not let the boiler explode and has sense enough to send to town for a mechanic when he thinks that his boiler may need some tinkering, possibly earns all the wages that he gets; but the man who by stopping all leaks by keeping the inside of his boiler clean, and by careful and thoughtful firing evaporates more water per pound of coal, frequently saves to his employer more money than he receives.

The Farm Home

The Census Man.

Are you ready for the census?
Have you read the almanac?
Have you studied your ancestors
For a dozen cycles back?
Have you counted up your freckles?
Have you figured up your sins?
For you know you'll have to tell 'em
When the census man begins.

Have you added up the children?
Have you figured up your cash?
Did you ever find a button
In a dish of corn beef hash?
Are you deaf or blind or ugly?
Do you toe out or toe in?
All of this you'll have to answer
When the census man begins.

Do you lisp or squint or stammer?
Ever had the whooping cough?
Are you handy with the hammer?
Ever do a stunt at golf?
Are you fond of checkered neckties?
Ever fall and bark your shins?
Did you swear? You'll have to tell it
When the census man begins.

—The Bismarck Tribune.

The Only Ghost I Ever Saw.

A True Story.

When I was young, Siah and I had to go over to Palestine one day, and night overtook us soon after we started for home. Hardly had we started ere we began thinking of the ghost that was said to be seen near the Jerrell graveyard, a place we had to pass on our way home. "Do you suppose, Ben, we'll see that ghost?" timidly asked Siah. "No, Siah," I answered, reassuringly, "we'll not see any ghost for there are no such things. When one leaves this world there is no probability that he will ever want to return, and it isn't possible even if he did want to. We can pass that graveyard safely and not see or hear any ghost," but Siah seemed uneasy, and begged that we take another and longer road to keep from passing the haunted place.

I would not agree to doing so, and laughed at his fears, saying, for we were now in sight of the place, "Don't you see how silly it would have been going the other way when we're already tired and sleepy? There is no ghost to be seen, I knew there wouldn't be. I never did believe it," but as if half doubting my words, I looked cautiously about still, and then seeing nothing unusual, I continued, in a spirit of confiding bravery, "To be honest with you Siah, I really wanted to come this way, partly because you were afraid, and I'd get to laugh at you, and also to prove there is no ghost here. I've always said there was none, and now you see, Siah, I've been right all the time, but—

"My God! Ben, look! look! the ghost! Oh-h!" said Siah, in a thrilling whisper, clutching my arm nervously.

And sure enough there was the ghost only a little way in front of us—a little child, clad in white, with arms

uplifted as though entreating some one to take it.

"Please, oh, please, Ben, let's go back and take the other road," whispered Siah with chattering teeth.

Had I consulted my inclinations just then I should have yielded to Siah's request, but I remembered how I'd often laughed at people for being afraid, and said repeatedly that should I ever, by any chance, see anything I didn't understand, I wouldn't cowardly flee from it, saying it was a ghost, but I'd go right up, and see what it was. And now the time had come when I must prove my courage, or be laughed at as a coward by father and my brothers, and though I'd have given all I possessed to be away from there, for I felt very superstitious and rebelled at the thought of investigation, I said as calmly as I could speak, not wanting Siah to know I was afraid—

"No; let's go right on. Whatever it is, it can't hurt us," but we'd scarcely taken a dozen steps when the child began rising slowly in the air, causing us to halt instantly and stare in stupefied wonder, but the instant we stopped so did the child, just standing suspended in the air, in the same entreating attitude.

"Oh, Ben, what do you suppose it wants? To whom is it reaching its arms? Oh, let's go back. I can't go any further," almost sobbed Siah.

My knees felt so weak I could scarcely walk, but I said courageously, "No, no, we'll not go back. Come; let's go a little closer. We must see what it is," and we started, but the child raised in the air as before, standing about as high as a man's waist.

I could feel the hair rising on end on my head as we again started. As we cautiously advanced, I said in low tones that trembled in spite of all I could do, "Let's go a little closer. We don't know yet what it is."

"Oh, Ben, if you just will go on, just let me talk to it. I've heard mother tell how you must talk to ghosts."

"You may certainly talk to it all you want to, for, I confess, I know not what to say to it, but we must see what it is, and what it wants. It would never do to turn back now."

We advanced a few steps, only to see the child rise as high as a man's shoulders, with arms still uplifted, and in imagination we could almost hear the spectral voice entreating, "Take me, take me!"

I had to take both hands to hold my hat on my head, as we advanced a few steps farther and saw it rise as high as our heads. We were almost within reach of it, and could plainly hear its breath.

Siah considered this an opportune moment, and in husky accents began stretching forth his hands in deprecation

"Oh, good ghost, O spirit child, O wandering angel, what dost thou want, and why art thou—"

But he never finished his speech for it turned around and stepped out of our path, and as he did so I recognized him, for I was well acquainted with him.

"Twas a huge black steer, with white face and white horns that my father had recently sold. I had fed him many and many a time. He was munching grass by the roadside, and, hearing us, lifted his head to listen and later to look.

"Now, Siah, are you not glad we did come on? Had we turned back I should always have believed we had seen a ghost. No one could have made me think it was a white-faced steer."

"No; nor I either, Ben. I am glad now we came on, but I never did have such a fright in all my life."—
Katherine Alierton.

Three Pies.

Lemon Cream Pie.—Bring two cupfuls of rich milk to scalding heat in a double boiler, beat the yolk of three eggs and one heaping teaspoonful of sugar until very light, add the grated yellow rind of one lemon and the juice of two, beat well, and gradually pour into the boiling milk, stirring constantly until it thickens; then add a teaspoonful of butter and a pinch of salt; remove from the fire and stir until butter is dissolved. Bake a deep shell, brush over the bottom with white of egg, pour in the cream, heap a meringue of the whites of three eggs and two tablespoonfuls of sugar over the top and yellow in a cool oven.

Cocoanut Pie.—Bring two cupfuls of milk to scalding heat; beat the yolks of two eggs and four tablespoonfuls of sugar until very light, add one heaping tablespoonful of corn starch, dissolved in four of cream, pour into the hot milk, and stir constantly until it thickens and is smooth. Remove from the fire, add one-half a freshly-grated cocoanut and cool; beat the whites of the eggs stiff, add one teaspoonful of vanilla and gently fold them into the custard. Bake a deep shell, fill with the custard, and bake in a moderate oven ten or twelve minutes, but do not brown. Spread fresh cocoanut over the top and serve very cold.

Chocolate Cream Pie.—Put three tablespoonfuls of water, two of sugar and three of grated chocolate over the fire, and simmer until it is melted and glossy. Make a boiled custard of two cupfuls of milk, two tablespoonfuls of sugar, one level tablespoonful of corn-starch, and the yolks of three eggs. When smooth, add the chocolate, stir well together, and add one teaspoonful of vanilla. Pour in a baked shell, heap meringue in even-sized spoonfuls over the top, having one in the centre, and one for every section of pie when served. Dust powdered sugar over the top, stand in a cool oven, but do not yellow.

The Farming World

▲ PAPER FOR FARMERS AND STOCKMEN.

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

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Business Notes.

A very interesting description of the manufacture of Ready Roofing is given elsewhere in this number, showing the machines used.

On page 980 an advertisement of an ideal skim milk weigher made by the Creamery Package Co., Cowansville, Que., will be found. If interested, write at once and obtain particulars.

Used Caustic Balsam for Fifteen Years.—M. C. Cotton, of Westchester, Pa., writes the Lawrence-Williams Co. the following: "For fifteen years I have been using your Gombault's Caustic Balsam with splendid results."

Investigate the merits of the Columbia air churn, advertised on front cover. It is guaranteed to produce more butter and better quality in one-tenth the time, with less labor than any churn on the market. A post-card will bring you all particulars.

A big thing is offered by the Atlantic Refining Company on the front page. Elastic carbon paint is specially adapted for farm buildings, in fact, anything that needs to be painted. Proof against weather, fire and rust. Write for full particulars.

Farm Scales.—C. Wilson & Sons have extended their two thousand pound, diamond steel bearing scales offer until the end of May. This is a big chance for every farmer to get a high class scale at wholesale price. This offer is to THE FARMING WORLD readers only.

On page 1,002 will be found the advertisement of a most convenient steam cooker, which is giving satisfaction to housewives. It cooks a meal on either a gas, gasoline, coal or wood stove. It reduces fuel bills. No burning of food. Write for particulars to 69 Adelaide street east, Toronto.

The most successful farmers in the world believe in subsoiling. The Vesnot Company, Joliette, Que., manufacture a subsoiler which works to perfection and is attachable to any plow without any extra draft on horses, and is specially adapted to preparing the land for sugar beet raising. The famous Joliette grinder is also manufactured by this company.

Montreal Horse Show.

The second annual Montreal Horse show was held on May 8-11. The success of this year's show makes the

event a permanency. Like Toronto show it has developed largely into a society function, where the latest gowns and the best in the milliner's art are displayed. Lord and Lady Minto were present, and the general attendance was good, though very few farmers were present.

The quality of the horses shown was excellent, and most classes were well represented. There was, however, a scarcity of breeding horses, while there was a superabundance of saddle and harness horses. Out of the fifty-three classes there were only three breeding classes—thoroughbred, roadster and Clydesdale or Shire stallions. In the heavy classes there were only five entries while the thoroughbred and roadster had seven entries each. Six horses were entered for the Gov.-General's prize given under the same conditions as at Toronto.

Did Good Work in the West.

Messrs. D. C. Anderson, Rugby; Andrew Elliott, Galt; T. G. Raynor, Rosehall, and D. Drummond, Brooklin, who were sent out by the Dominion Department of Agriculture to assist in Farmers' Institute work in the Northwest Territories and British Columbia, have just returned to their homes in Ontario after a very successful campaign. They report a good attendance at the meetings, and a keen interest in the addresses and discussions.

The following quotation from a letter written by Mr. J. R. Anderson, Deputy Minister of Agriculture of British Columbia, will give an idea of the way the work of these gentlemen is appreciated in the West:

"I am pleased to say that all these men have given the fullest satisfaction at all points, and it gives me pleasure to add my expression of appreciation of their work. I did my best to afford them the fullest opportunity of seeing the country during their stay, and I hope and believe that they bear with them a favorable impression of it. Of one thing I am certain, that the cause of the Farmers' Institutes is decidedly benefitted."

A Moth Catcher.

In several of the States of the Union a contrivance known as the "Haseltine Moth Catcher" is largely in use for capturing the codling moth, stingling fly, and kindred orchard pests. The advocates of this method claim that it is much superior to spraying. The efficacy of this machine depends upon the fact that the moths are attracted by a bright light at night. They are known to be repelled by heat, so this catcher is arranged to give out a bright and attractive light without at the same time giving out any heat. The moths seeking the light strike a smooth reflector, and fall into a basin which contains kerosene on the surface of the water below and are destroyed. One operator in the



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

Western States claims to have captured two bushels of moths, etc., by the use of sixteen of these catchers in a forty-six acre orchard. If any of our readers have tried a contrivance of this nature we would be glad to hear from them.

The Halton Institute.

The Halton Farmers' Institute and Woman's Institute will hold a basket picnic at the farm of Thos. and A. W. Peart, Burlington, Ont., on May 24. The programme will consist of a stroll through the orchard, with illustrations on grafting and pruning by experts. On this farm is situated the Burlington Fruit Experiment Station, which should prove a source of interest to visitors. A pleasant and profitable time is expected. Mr. J. L. Warren, Acton, Ont., is secretary of the Institute.

A Drench.

The question is often asked, "What is a proper drench for a cow?" Some good authorities recommend the giving of one pound to one and one-half pounds of Epsom salts, according to the size of the cow (the former quantity for a cow of 750 lbs., and the latter quantity for a cow of 1,000 lbs. weight or over); one quart of common molasses, two heaping tablespoonfuls of ground ginger, all dissolved in 3 qts. of hot water. All to be given as a drench at one time.

Books and Bulletins Received

Twenty-sixth Annual Report of the Ontario Agricultural College and Experimental Farm, containing detailed statements of work carried on in the various departments during 1900.
Report on Agriculture for the Province of New Brunswick for the year 1900. Published by authority of the Legislature. L. P. Farris, Commissioner for Agriculture.
Annual Report of the Agricultural and Experimental Union of Ontario, for 1900, giving a full account of the experiments conducted during the year.
Two Bulletins issued by the commissioner's branch of the Department of Agriculture, Ottawa, one on curing rooms and curing cheese, and the other on milk for cheese factories by J. A. Rudick, chief of dairy division.

Wash your hands in borax water instead of using soap. The milk pails are better and cleaner for having been rinsed in borax water. Use warm water to rinse with. Many dairymen who deliver milk to their city customers in the large tin cans rinse them out every day, once a day with a solution of borax water; a small handful of borax to a large dishpanful of water to wash the cans in. They use a brush to get them thoroughly clean inside. Borax kills the germs which cause milk to sour, and it costs so little everyone will be able to keep it. There is no harm in using borax in the water in which dairy utensils are washed, but adding borax to the milk—as some do—to preserve it, is objectionable.

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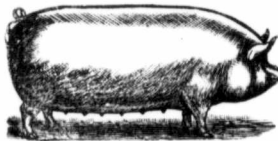
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PURE-BRED STOCK

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 flocks 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 earnestly 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.

Messrs. A. & W. Montgomery have this week sold two well bred Clydesdale horses, Fickle Prince (10344*) and Auldgrith (10692) to Mr. John Duff, Rockwood P.O., Ontario, Canada. Fickle Prince was bred by Colonel Holloway, Alexis, Illinois, and was got by the famous Cedric (1087). This horse had the Auchtermuchty premium last year, and is a big, handsome animal and a good goer. His sire was known as one of the best breeding Clydesdales on either side of the Atlantic, and his dam was bred by Mr. McTurk, Barlea, and got by the big prize horse Knight of Lothian, almost full brother by blood to Macgregor. Auldgrith (10692) is an extra well-bred colt, and own brother to the prize horse Palmerston (10380), which gained first prize at the Royal and at the Chicago Show last winter. He was selected as the premium horse for the Stirling district last year in lieu of Watchword, and the foals for this season are by him. His sire was the famous horse Royal Standard (98471), which gained first prize as a yearling and a two-year-old in the West of Scotland, and was subsequently premium horse in the Lockerbie district twice, and in Banffshire and elsewhere. His dam was the strong, powerful mare Countess Skelmorlie, a daughter of the successful breeding horse, Skelmorlie (4027), and whose sire was the famous horse, Top Gallant (1850). These are a couple of as good horses for the Canadian trade as have left Scotland for a long time.—*The Scottish Farmer.*

We understand that these importations landed in fine order without a scratch, and are already en route to Wellington county. We have not yet seen the horses, but Mr. Duff thinks Fickle Prince the best horse he ever imported, and he has had several good ones.

Cattle.

At an auction sale of Shorthorns held at Georgetown, P.E.I., on May 1, fair prices were realized. They were the property of Mr. F. G. Bovyer, well known to Ontario breeders. A number of the animals sold to go to New Brunswick and Ontario. The following is the list of sales made:

White Bull, Silver Chief, 20,500, calved March, 1894. Sold to Silas Lane, Mt. Mellick, for \$150.

Roan Bull, Gloster's Chieftan, 29,009. Sold to Samuel Cameron, Hampton, price \$122.

Roan Bull, Mollison, 31,787, calved September, 1899, sold to St. Dunstan's College, price \$93.

Roan Bull, Ruskin, 36,164, calved July, 1900. Sold to J. Hughes, Covehead, \$34.

White Bull, Jockey, 35,044, calved May, 1900. James McMillan, Cornwall, \$100.

Roan Cow, Rosemary, calved December, 1897. Sold to J. Leslie Poole, Montague, \$105.

Red Cow, Mina Mowbray, 27,042, calved April, 1894. Sold to Arthur Johnson, Greenwood, Ont., \$325.

Roan Cow, Rosedale, 31,442, calved April, 1895. Sold to Silas Lane, Mt. Mellick, for \$150.

Roan Bull Calf, Challenge Lad, calved March, 1901. Sold to Bliss Fawcett, Sackville, N.B., \$38.

White Heifer, Cranberry, 34,573, calved May, 1898. Sold to Robert McNeil, New Dominion, \$102.

Roan Cow, Mina Greenwood, calved April, 1898. Sold to Hon. John Yeo, Port Hill, \$140.

Roan Cow, Fashion, D. S. H. B., calved July, 1894. Sold to S. F. Drake, Pownal, \$90.

Roan Heifer, Mina Burns, calved April, 1899. Sold to Hon. John Yeo, Port Hill, \$151.

Cow, Berrybell, 31,432, calved June, 1898. Sold to George Fawcett, Sackville, \$62.

Roan Heifer, Mina Clara, calved Feb., 1900. Sold to Walter Johnson, Greenwood, Ont., \$120.

Heifer, Daisy Gwynne, 34,574, calved April, 1899. Sold to William Ross. Price \$83.

Roan Heifer, Challenge Heiress, calved March, 1901. Sold to Bliss Fawcett, \$72.

White Heifer, Fashionable, 34,575, calved May, 1899. Sold to Frank Auld, Covehead, \$75.

Bull Calf, Yellow King, calved March last. Sold to Silas Lane, Mt. Mellick, \$19.

Bull Calf, Easter Morning, calved 7th April last. Sold to S. Drake, Pownal, with dam.

The F. W. Stone Stock Co., Guelph, shipped on May 2nd to Brandon, Manitoba, nine head of pure-bred Hereford bulls from the celebrated Mereton Lodge herd.

Swine.

Brethour & Saunders, Burford, Ont., report a big sale of Yorkshires this spring. At present they have not a single boar over three months for sale. They report splendid success with their spring litters, and expect to have a superior lot to meet the fall trade. Several of these litters are the produce of the celebrated boar, Oak Lodge Conqueror. They have now on hand produce from eight different stock boars. Their stock now under preparation for the fall exhibitions are a grand lot, and will give a good account of themselves in the show ring. This firm expect to make quite a large exhibit at the Pan-American Exposition in September. They have recently given an order for a choice selection of Yorkshires from some of the best English herds.

One of the finest lots of pedigree white pigs ever sent from this country was shipped on Saturday from Glasgow, per the Donaldson liner *Tulonia*, which sailed for Canada. The animals were all selected from Lord Rosebery's well-known herd at Dalmeny Park, and were consigned to Mr. D. C. Flatt, of Millgrove, Ontario, a brother of Mr. W. D. Flatt, the eminent Shorthorn breeder. Mr. D. C. Flatt, of Millgrove, is one of the largest pig breeders in Canada, his herd embracing many first-class animals, both of his own breeding and imported from this country. Saturday's shipment will make a very important addition to the herd. The different lots were selected with great care, amongst them being many of the best pigs in Dalmeny, and which were only secured at big prices. We understand it is Mr. Flatt's intention to exhibit some of them at the ensuing American shows, a purpose for which, with luck on the voyage across, they should be admirably suited.—*North British Agriculturist.*

Our market reports are reliable and up-to-date. They are written specially for The Farming World and are of inestimable value to every farmer.

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Am not breeding for fancy or feathers, but size and quality, what farmers want. Old cocks in use weigh ten pounds each. Eggs \$1.00 per 13. Apply to

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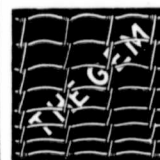
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Market Review and Forecast

Office of THE FARMING WORLD,
Confederation Life Building,
Toronto, May 20, 1901.

Though trade generally is in pretty fair condition for this season, there has been a little too much overtrading and speculation, with the result that orders are falling off in certain lines. This temporary check, however, will not likely have any material effect on future trade. On the whole remittances have been fair during the week, and are expected to improve through the greater movement of provisions. Money is ample, but steady, with call loans at 5 per cent., though a few are reported at 4½. Discounts remain steady at 6 to 7 per cent. as to name and nature of account.

Wheat.

Were it not for the speculative element, the wheat market would be rather "bearish" just now. On this point the *Trade Bulletin* of May 17th says:

It is a pretty difficult matter to advance the price of wheat in face of the continued good reports of the growing crop, from the principal winter wheat sections of the United States, and especially as we are so near harvest operations, the first new Southern samples being expected by the middle of next month. The Government report issued after we went to press last week was bearish, as had been expected, increasing the condition to 94.1, as compared with 91.7 a month ago. The effect of this, however, was offset by a decrease of about 2,000,000 in the winter wheat acreage, which reduces the suggested yield. The figures are as follows:

Period.	Condition.	Yield bus.
May 1, 1901.....	94.1.....	428,415,000
Apr. 1, 1901.....	91.7.....	450,063,000
May 1, 1900.....	88.9.....	374,131,000
May 1, 1899.....	76.2.....	315,470,000
May 1, 1898.....	86.5.....	351,000,000
May 1, 1897.....	80.2.....	302,000,000

Present prices are fully 7 to 8c. per bushel over those of a year ago. The world's total amount in sight, however, is 90,000,000 bus., being an increase of 2,444,000 bus. as compared with that of a year ago.

There is very little doing in the local markets, and prices are more or less nominal. The market here is firm on light offerings at 67 to 68½c. as to freight charges, etc. Goose is quoted at 66 to 67c., and spring at 69 to 70c. east. On Toronto farmers' market red and white bring 72½ to 73c., spring life 71½c., and goose 68 to 68½c. per bushel.

Oats and Barley.

Export prices for oats are lower and the general market is rather quiet. Quotations here are 33c. for No. 1 white east and 32c. for No. 2 white middle freights. On the farmers' market oats bring 37 to 37½c. per bushel.

Good quality of barley is rather scarce and prices are steady. Here barley ranges from 44c. to 50c., as to quality and point of shipment. On Toronto farmers' market barley brings 47c. per bushel.

Peas and Corn.

The market for peas is firmer. Quotations here are 65c. north and west and 66c. middle freights. On the farmers' market peas bring 65c. per bushel.

The corn market is firm, due to the attempt to corner the product at Chicago, where prices advanced to 60c. last week, which is 12c. above the export basis. At Montreal No. 2 mixed Chicago is quoted at 48 to 48½c. in car lots. American No. 3 yellow is quoted here at 49½c. Toronto.

Bran and Shorts.

Manitoba bran in bags is selling at Montreal at \$15.50 to \$16 in car lots. Ontario bran is quoted there at \$15 to \$16 and shorts at \$16.50 to \$17 in car lots. City mills here sell bran at \$15.50 and shorts at \$16.50 in car lots f.o.b. Toronto.

Eggs and Poultry.

The English market for eggs keeps steady, with a good demand, at 3d. per long hundred advance. The situation at Montreal is given by the *Trade Bulletin*, as follows:

"Several buyers from England have recently called upon their correspondents here; but they talk very low prices for the coming season, and, although it is difficult to draw any bids from them, one said that he thought he ought to buy his pickled stock for fall delivery at 6s. 6d. c.i.f.; another said he would take a few at 6s. 3d. c.i.f. Liverpool or Glasgow. In this market sales of 500 cases No. 1 fresh were made at 11c., and sales of 1,500 cases sold in the West at 10½c. cost and freight here, all of which will go into the vats. The price paid this week west of Toronto is 9½c. and east of Toronto 10c. A lot of Prince Edward Island eggs sold at 11c."

The market here keeps steady, with prices unchanged, at 10½ to 11c. for case lots. On Toronto farmers' market eggs (new laid) bring 10 to 13c. per dozen.

Hay and Straw.

There has been quite an advance in the English market, and last week Canadian hay in Lowry packed bales sold at 73s. 6d. at quay, and Canadian chopped hay at 80s. Good mixtures of Canadian hay have brought 85s. in London.

The Montreal market rules firm, though some dealers there are looking for an easier market this week. Car lots of No. 1 baled hay are quoted there at \$11.50 to \$12 per ton; No. 2 at \$10.50 to \$11, and clover at \$9.50. There is more offering here, and the market is easier at \$9.75 to \$10 in car lots on track. Baled straw is quoted at \$5.50 to \$6 per ton. On Toronto farmers' market hay brings \$12 to \$13; sheaf straw \$8 to \$9, and loose straw \$5 to \$6 per ton.

Cheese.

The prospects for a steady market for some weeks are good. There is a scarcity of the new make, and buyers find it difficult to fill orders. Though English dealers are not in the best of moods, owing to heavy losses on old stock held over, they seem very eager to secure new stock, and are cabling in some instances for best terms. The English demand is expected to increase from week to week as the field work begins, and if prices are not hoisted too high a good, steady trade is expected. A large make of May cheese is looked for, though the fact that prices are from \$1.50 to \$1.60 per box lower than at this time a year ago, and that there is an advance in the butter market, may have the effect of keeping it at a moderate compass. Grass, however, is good, and cows have plenty of good food from which to make milk.

Finest Western whites are quoted at Montreal at 8½c., and finest Easterns at 8½ to 8½c., which are fair values. At the local markets prices have ranged from 8 to 8½/16c., the general run being from 8½ to 8¾c.

Butter.

Though the English market is dull a considerable advance in the market here for creamery butter is reported. Prices are now 1½ to 2c. higher than at this time last year. The *Trade Bulletin* sums up the market of the week as follows:

"There is a good demand for export account, sales of choice creamery having been made in the Eastern Townships at 18½ to 18½c. f.o.b., a few fancy factories getting 18¾c., about 1,000 boxes being reported to us at these prices; but it is difficult to get over 18½ to 18½c. in the city. The Allan Grove sold about 150 boxes at 18½c. delivered here. The Compton Factory sold at 18½c. delivered here. It is said that this week's make of creamery is full grass; but we learn from factorymen themselves that up to the present, although all the cows are out on grass, farmers are giving them a feed of hay night and morning. Two lots of Eastern Townships dairy sold this morning at 16½ and 17c. respectively, a very choice lot yesterday bringing 17½c.; but it is almost equal to creamery. A few choice fresh tubs of Western dairy sold at 15 to 15½c. The exports during the past week were 1,848 packages."

Creamery sells here at 18 to 19c. for prints and 17 to 18c. per lb. for tubs and boxes. From 12½ to 13½c. are the ruling figures for best dairy in round lots. On Toronto farmers' market butter brings 13 to 18c. per lb.

Cattle.

Trade in live stock continues good, and the higher values of the last few weeks have been well maintained. Cables keep steady and the outlook is good. At Toronto cattle market on Friday the run of live stock was fairly large, consisting of 1272 cattle, 1705 hogs, 400 sheep and 20 calves. The quality of the fat cattle was fairly good. There was a large number of exporters on the market, but few were for sale as they comprised through shipments. More fat cattle of all classes would have found ready sale. There was a large number of outside dealers present looking for feeders, as well as butchers' cattle. Trade was good and prices, if anything, a little higher than earlier in the week.

Export Cattle.—Choice loads of these are worth from \$4.85 to \$5.25 per cwt. and light ones \$4.60 to \$4.80 per cwt. Heavy export bulls sold at \$3.85 to \$4.25, and light ones at \$3.40 to \$3.50 per cwt.

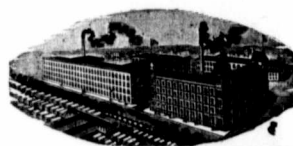
Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters', weighing 1,050 to 1,150 lbs. each, sold at \$4.65 to \$4.80 per cwt., good cattle at \$4.50 to \$4.65, medium \$4.25 to \$4.45, and inferior to common at \$3.50 to \$4.20 per cwt.

Feeders.—Heavy, well-bred steers, from 1,100 to 1,200 lbs. each, sold at \$4.30 to \$4.70, and other quality at \$4.00 to \$4.25 per cwt. Light steers, weighing 900 to 1,000 lbs., sold at \$3.75 to \$4.00 per cwt.

Stockers.—Yearling steers, 500 to 800 lbs. each, sold at \$3.25 to \$3.50, off colors, and inferior quality at \$2.50 to \$3.00 per cwt.

Calves.—These are lower at Buffalo, choice

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to extra bringing \$5.00 to \$5.25 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Milk Cows.—These sold at from \$30 to \$47 each. Choice cows would bring more money.

Sheep and Lambs.

The sheep market is easy, though lambs at New York on Friday were 10 to 15c. higher. At Toronto market on Friday prices were easy at \$3.50 to \$4 per cwt. for ewes and \$2.50 to \$3 for bucks. Yearling grain fed lambs sold at \$5 to \$5.50 per cwt., and barnyards at \$4 to \$4.50. At Montreal, yearlings are quoted at \$5.50 to \$6, and sheep at \$4.50 to \$5 per cwt., and spring lambs at \$2.50 to \$5.50 each.

Hogs.

There seems to be a regular boom on in hogs, and it would not be surprising to see values go even higher than they are at present. On Friday select bacon hogs, 100 to 200 lbs. each, sold at \$7.25 per cwt., and light and thick fats at \$6.75. Unculled car lots sold at \$7.15 to \$7.20 per cwt.

The Wm. Davies Co., Toronto, will pay \$7.25 this week for select bacon hogs, and \$6.62½ for light and \$6.75 for thick fats.

At Montreal, prices have advanced to \$7.40 per cwt. for light hogs and \$7.50 in some cases. Heavy averages bring \$7. These are the highest prices that have been paid on that market for thirty years. The *Trade Bulletin's* London cable of May 16, re Canadian bacon, reads thus: "The market is steady for Canadian bacon at an advance of 1s. with a fairly good business, No. 1 being quoted at 57s. to 60s.; fancy lean cuts 61 to 62s."

Horses.

A Montreal report in reference to the horse market there says: "There is a good demand for nearly all classes of horses from light roadsters and saddle horses up to heavy draughts and carriage animals. In fact, business is better than it has been for some time past, and prices are certainly advancing, owing to the export demand. There are about 900 horses in the city awaiting to be put on board the steamer "Anglo-African" for the Cape as soon as she arrives. The statement to the effect that these horses were purchased by the Canadian Government for shipment to South Africa is incorrect, as they were bought by Col. Dent, who represents the War Department of the British Government. In this market sales of light driving and saddle horses have transpired at \$100 to \$160 each, while heavy draughts have changed hands at \$150 to \$225."

Tuesday's and Friday's sales of horses at Grand's last week averaged very well, especially that of Tuesday; 65 to 70 horses were sold. Some good drivers were disposed of at values ranging from \$125 to \$190, the latter figure being realized for "Andy Sprague," a speedy driver with a record of 2:10¼. General purposes sold at from \$60 to \$120. No heavy horses were offered.

A notable sale during the week was that of a fine pair of carriage horses, broken both to ride and drive, for \$1,000 for the pair. They were well fitted and trained by W. Harland Smith, proprietor of Grand's, and were five and six years old.

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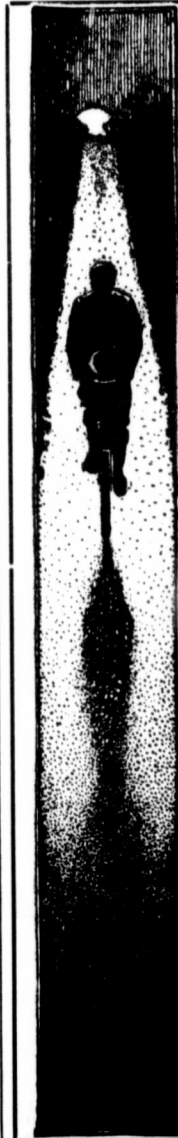
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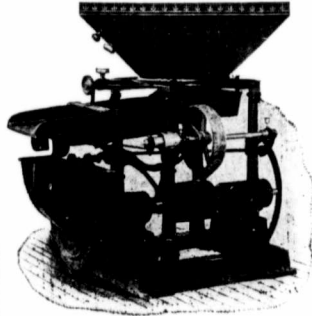
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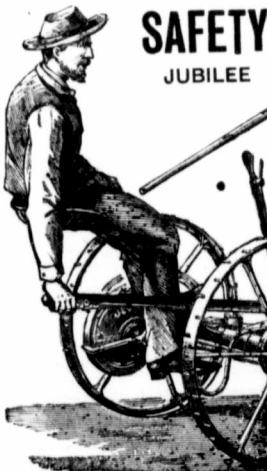
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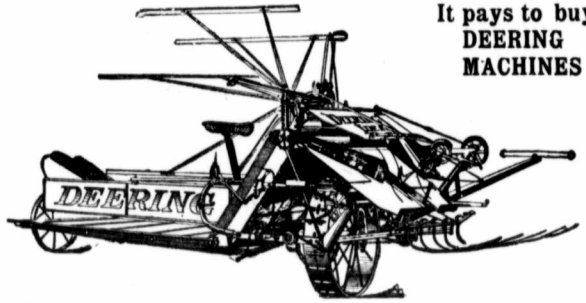
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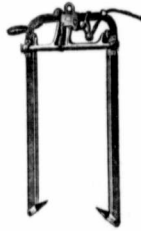
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