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Canadian National Exhibition

TORONTO, ONT.

August 26th to September 11th

1905

PREMIUMS:

\$40,000.00

Entries for Live Stock and Dairy Products close **Monday, August 7th.**
Entries for Grain, Field Roots, Garden Vegetables, Horticultural and Horticultural
Products, and Honey, close **Monday, August 14th.**
Entries for Poultry and Pet Stock close **Saturday, August 19th.**
Entries for Dogs (see special Prize List) close **Saturday, August 19th.**

For Prize Lists, Entry Blanks and all information, address:

W. K. McNAUGHT,
President.

J. O. ORR,
Manager,
City Hall, Toronto, Ont.

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A bonus of \$25,000 has been granted to H. K. Wampole & Co., of Philadelphia, by the town of Perth, Ont., to erect a large factory for the manufacture of milk sugar. This is a new industry in Canada, and its development will be watched with interest.

The Farming World

And Canadian Farm and Home

Vol. XXIV

TORONTO, 15 JULY, 1905

No. 14

A Tribute to Canadian Agriculture

AMONG the names on the list of honors to be bestowed on the King's birthday, none stand out more prominently than that of Prof. J. W. Robertson, late Commissioner of Agriculture for Canada. His Majesty the King has been pleased to make him a Companion of St. Michael and St. George, an honor which he richly deserves. It is a striking testimony to Prof. Robertson's personal worth and at the same time a splendid tribute to Canadian agriculture. At no previous period in our history has such an honor been bestowed upon anyone closely identified with Canadian agriculture. It is gratifying, therefore, to know that Canada's greatest industry has been so recognized and that a man so worthy in every way as Prof. Robertson is, has been selected for the honor.

It is nearly twenty years since Prof. Robertson entered upon his public career. Canadian dairying was his first love. But as the years passed his field of usefulness widened and agriculture in nearly all its branches came under the influence of that indomitable energy and faculty of his for doing things and doing them well. Movements initiated by him are now strong factors in moulding the agriculture of Canada.

He aimed at some new movement for the betterment of the farmer's calling being set on foot every year. That his ideal was nearly if not altogether realized, a glance over the busy years since 1890 will show. His recent retirement from government service and his entrance upon his duties at the Macdonald Agricultural College at Ste. Anne de Bellevue, marks an important division in his life. But if a man's past is any indication of what he will accomplish in the future, Prof. Robertson's work in this new sphere of activity will be both effective and lasting. He deserves well of his

King and country. Every Canadian farmer will join with us in extending to Dr. James W. Robertson, C.M.G., our heartiest congratulations.

The Cattle Embargo Again

The Toronto Globe of Saturday last attacks THE FARMING WORLD for its attitude on the embargo question. It is, to say the least, funny to have a journal, that has in recent months fathered the "straw-stack," steer to be reading THE FARMING WORLD a lecture on the cattle business. In-

making cattle breeding and feeding a success.

But be that as it may, the chief reason advanced by "The Globe" for the removal of the embargo is because of the great difficulty which farmers have in obtaining farm help. It says:

"The outstanding obstacle in their way is the scarcity and high price of labor, and they are forced to content themselves with raising young cattle for others to feed, instead of feeding their own until they are fit to kill."

It is quite evident that "The Globe" is about as far astray on the farm help problem as it is on the cattle question. The majority of our farmers engage help for the summer months only, a practice that is neither conducive to permanency nor efficiency in farm help. If farmers would do more feeding and fitting cattle for market in winter they would be enabled to keep their help all the year round and would not be compelled to scurry about every spring for men, as many have to do today. Besides, there are the rough feeds, which are grown in abundance on nearly every farm, especially in Ontario. What is the farmer to do with these if he does not feed them to live stock? By engaging men by the year



Dr. James W. Robertson, C.M.G.

and utilizing their time in winter in converting this rough feed into finished beef products, the farmer serves the two-fold purpose of finding an excellent market for his coarse grains, etc., and securing steady help to work his land. There are hundreds of farmers today who are not suffering for want of help because they make yearly engagements with their men and find profitable employment for them during the winter in feeding and fitting cattle for market, and there are many others who could do the same thing if they tried.

The main objection which Canadians have to the embargo is that

and utilizing their time in winter in converting this rough feed into finished beef products, the farmer serves the two-fold purpose of finding an excellent market for his coarse grains, etc., and securing steady help to work his land. There are hundreds of farmers today who are not suffering for want of help because they make yearly engagements with their men and find profitable employment for them during the winter in feeding and fitting cattle for market, and there are many others who could do the same thing if they tried.

it implies that disease exists among our cattle, an implication that has not the slightest foundation, in fact, at the present time. If the British government would frankly state the true reason, which is that the embargo against Canadian cattle exists as a measure of protection for the English farmer and not to prevent the introduction of disease, little or no argument could be advanced by Canada in behalf of its removal.

Is Our Agriculture Over-Organized?

The proposal to organize county societies in affiliation with the parent organization, as announced in the draft constitution of the Dairymen's Association of Eastern Ontario, to be submitted for ratification at its next annual convention, brings up a question deserving of a little consideration at this juncture. Are not those engaged in agricultural pursuits, especially in Ontario, now sufficiently organized to meet all their present and future needs? May there not be a danger of over-doing the organization question if we go on multiplying associations and societies as we have been doing in recent years? Do not our farmers' institutes, agricultural societies, dairy, live stock, fruit and kindred associations form sufficient organization material to carry on all that needs to be done to help the farmer and his calling? Those interested in promoting additional associations should consider these questions carefully before attempting a further tax upon the farmer's time and energy by increased organization.

We presume the object of these county dairy associations, if they are formed, will be to carry on an educational campaign in the interests of better dairying. But why not use the farmers' institute system for this work? It is a live organization and has already done effective work in the interests of better dairying. If dairying is not being given the attention it deserves on the institute program, why not arrange with the superintendent for a series of dairy institute meetings similar to the seed institutes held a few weeks ago. Co-operation in this way between the existing provincial dairy associations and the institute system would supply everything needed to educate the farmer in advanced methods of dairying that local dairy associations would and relieve somebody of a great amount of work which might better be expended in other directions.

Organization has done and is doing a great deal to promote better agriculture in Canada, and we would not like to see its effectiveness in any way lessened. At the same time there is a danger of the farmer becoming surfeited if his time and energy are too greatly taxed in maintaining unnecessary associations and societies. May it not, therefore, be the part of wisdom to utilize the organizations we now have to their fullest extent rather than to increase the burden upon the farmer by multiplying associations and societies.

Mistook Pollen for Midge

Those "who know" are having no little fun over some lecturers at the recent seed institutes held in Ontario, mistaking pollen in the clover blossom for midge. One speaker was so sure of his ground that several clover seed growers could hardly get home fast enough, so eager were they to stem the ravages of the midge by cutting the clover. The lecturer had mistaken the pollen in the clover for the destructive clover seed midge, and as no one was there to point out his mistake, there was no little excitement among the farmers present. Another speaker at an institute was misled in the same way, but fortunately was put right by a person "who knew." While anyone is liable to make a mistake of this kind, persons who presume to give information to farmers at institute meetings should be very sure of their ground before giving advice. It is better to admit ignorance of a subject than to lead people astray by giving unreliable information.

However, it is all too true that there is a great deal of clover seed midge this season. The only way to overcome its ravages is to cut the crop early.

EXHIBITION NUMBER

The eighth annual exhibition number of THE FARMING WORLD will appear on Sept. 1st. This number is THE FARMING WORLD'S big issue of the year and it is always of interest to every farmer. The coming one will be equal if not superior to those that have gone before, and we can promise something real good in agricultural journalism.

An extra large edition will be run off for distribution at the fall fairs. If our subscribers would kindly send the names and addresses of friends who would be interested in this number we shall be glad to send sample copies free of charge.

Advertisers requiring space in the exhibition number will do well to apply to the business office early in order that good positions may be secured.

Pedigreed Seed Grain

The report of the annual convention of the Canadian Seed Growers Association, published elsewhere in this issue, will bear careful reading. The association is engaging in a field of work destined to be of untold value to the farmers of Canada if it can be carried out according to the scheme laid down. Nearly two hundred and fifty farmers scattered throughout the Dominion are now engaged in the production of selected and improved seed. Already surprising results have been obtained. Increased yields and better quality have been the outcome of this effort in nearly every case and there is no longer any doubt that the crops in every locality can be greatly increased and improved by selecting and growing from year to year seed from these same crops. In other words, the farmer does not have to look abroad for change of seed. By careful selection, year after year, of the best grain from his own crop, he will soon be in possession of a strain of seed, healthy and vigorous and peculiarly suited to his own environment and conditions.

The Seed Growers' Association and its officers are therefore engaged in a work that cannot but be of lasting

benefit to the agriculture of Canada, and we bespeak for it the hearty co-operation and support of every farmer interested in good seed. Pedigreed and registered seed is just as feasible and reasonable as pedigreed and registered live stock, and the advantages to be derived from it will be just as far-reaching.

Want an Agricultural High School

A deputation from Lennox and Addington waited upon Premier Whitney and the Hon. Mr. Monteith on July 4th, and asked that an agricultural farm and school be established at or near the town of Napanee. The matter was promised consideration. Those in close touch with the Government seem to think that the request will be complied with at an early date.

Editorial Notes

If there were any doubt about the bigness of the Dominion, it is removed by the announcement that the total appropriation for the fiscal year ending June 30th, 1906, will equal nearly \$82,000,000 or about \$14 per head of the population of Canada. This country is certainly growing.

After an investigation extending over several months, eighteen representatives of the Dominion industries of the United States have been indicted for breaking the laws regulating freedom of trade, etc. The consuming public will await with eagerness the result of the trial.

After a prolonged debate of several months during which a lot of time has been wasted and unnecessary religious strife engendered, the famous autonomy bills have become law and Sept. 1st will see two new full-fledged provinces added to the Dominion. No province has started on its career with a brighter outlook than Alberta and Saskatchewan.

There is some agitation for more strenuous efforts on the part of the provincial authorities to secure a better milk supply in the towns and cities of Ontario. The authorities, whether provincial or civic, cannot be too exacting regarding the quality of the milk supplied for human food. Pure, clean, flavored milk is of more importance than rich milk.

"No rust yet," is the remark that brings a smile to the Westerner these days when reference is made to the wheat crop. Estimated as to the yield are mounting higher and higher as harvest approaches. A month ago 90,000,000 bushels was the estimate, now it is 100,000,000. What will it be when harvest arrives?

Colorado is to have a seed grain competition similar to the Macdonald-Robertson competition so successfully carried out in Canada a few years ago. The competition is open to every boy and girl in the state under 18 years of age.

Will Meet at Ingersoll

The board of directors of the Dairymen's Association of Western Ontario have decided to hold the next annual convention of the association at Ingersoll in January, 1909.

We want capable persons in every district to represent The Farming World at the fall fairs. You can win your fall show and make a little pin money at the same time. Write for particulars to The Farming World, Toronto.

Farming in Holland

BY OUR ENGLISH CORRESPONDENT—No. II

THE CATTLE OF NORTH HOLLAND

The great attention paid in Holland to the advancement of the dairy interests and to the manufacture of butter and cheese has of late years aroused more interest in the improvement of live stock. The cattle are pretty well of one stamp throughout the whole of Holland and Friesland, that is, black and white, with an occasional brown and white one. They should not be confused, however, with the Dutch belted cattle. The cows are all of the milk type, and have large, well developed udders, which, however, are apt to be a bit fleshy; the bulls, too, lack that masculine character which an Englishman prizes so much. At Hoorn, which is situated on the banks of the "Rolling Zuider Zee," I had the opportunity of personally examining a large number of typical animals drawn from the surrounding neighborhood, and good animals they were. May I insert, in passing, that all the pasture is considerably below the level of the sea, and is of a rich and succulent nature. Formerly, only the outward appearance of the bulls used

further rearing. The societies for cattle rearing are financially supported by the committee for promoting cattle rearing in North Holland, while the latter receives a government and provincial allowance. The committee has a right to control the activities of the societies, which control, as far as it concerns the productiveness of the cows, is entrusted to the provincial dairy instructor. The further expenses are paid by the members, viz., per controlled cow so much to meet the expenses. As mentioned, the 14 rearing societies have been amalgamated into a federation of rearing societies, which looks after the common interests.

HOW EDAM CHEESE IS MADE

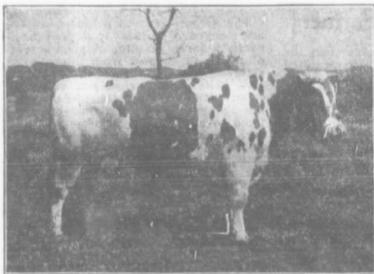
I have already described at some length the principle upon which Gouda cheese is manufactured, and now I propose to explain how Edam cheese is made in North Holland. Formerly Edam cheese was made twice a day, immediately after the cows had been milked; but this has been altered, and now cheese is made only in the morning. The evening milk is left untouched during the

milky liquid then appears, which is called "frosied" (rennet). The cheeses are wrapped up in a small cloth and pressed during four or six hours, and then salted. After that they are put in cheese presses in order to preserve the shape.

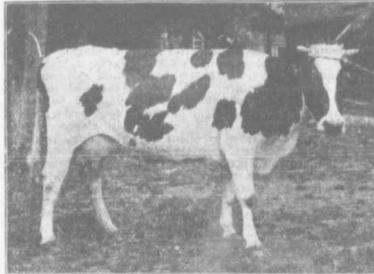
Salting lasts three to seven days, according to the size of the cheese; after two or three weeks they are taken to the market, and are transferred to the cheese merchants. Previously to taking the cheese to market the crust is oiled. The Edam cheeses are made in three sizes. The ordinary small ones weigh two kilos (4 lbs.); "the commissie" (commissie) four kilos (8 lbs.); and "the middle-sized" (middlebaar), six kilos (12 lbs.)

VEGETABLE AND SEED GROWING

Round the decayed town of Enkhuizen, once the headquarters of the East India company, considerable attention is being paid to the raising of potatoes, cabbage, and vegetable seeds. Enkhuizen itself is a very interesting old town. In its palmy days the population numbered about 70,000, but then it was a centre for a large trade with the far East, whereas now the harbor has silted up, and its trade is gone, the population numbering only some 6,000, and these



A Dutch Bull



A Good Dutch Milk Cow

was taken into account, but at present attention is being paid to the origin and the productiveness of the dams. In order to further these efforts a cattle rearing society was formed at Hoogkarspel in 1897; at present there are 14

CO-OPERATIVE SOCIETIES

working in co-operation. The society appoints a controller, who visits the different farms at regular intervals, in order to weigh and take samples of the evening as well as of the morning milk. Next morning he tests the milk for specific gravity and percentage of fat, and writes the results on forms specially prepared for the purpose. After the end of the lactation period, the summaries concerning the milking facilities of each cow are published. Where they reach the minimum as concerns the produced quantities of fat and solid matter free of fat and the average percentage of fat, the cows are registered in a herd book providing they, according to inspection points, have been approved of by a testing committee. The intention is to rear cattle not only good as regards inspection points, but also as large milk yielders.

In spring and autumn bull calves descending from registered cows are judged by inspection, and the best calves get a prize to encourage their

night, and after the small layer of cream that has formed has been taken off it is mixed with the full morning milk and then worked into Edam cheese. In many towns the farmers have established a cheese factory on co-operative lines, but the system of manufacture is identical. There is a great variety in the way of making, but practically the process of making Edam cheese is as follows: The milk is brought to the proper curdling temperature—80 to 84 Fahr.—thereupon color and rennet are added, and also, in most cases, a liquid containing lactic acid bacteria—for instance, "sour whey," "cheese-running whey," or rennet. The sour whey is a liquid whey and contains a "streptococcus" which has the property to turn lactic acid into a slime matter, so that the whey turns slimy, and when poured out forms threads. The rennet is the same sour liquid which is also supplied in the cheese and butter-making factory to get the cream sour. The milk is curdled for half an hour, and then the curdled milk is worked with a curd-stirrer or knife till it has turned sufficiently dry and solid. The curd lump is warmed up to 10 Fahr. in the whey, and then put into the cheese press, sometimes in large lumps, sometimes previously crumbled. In the latter case it must be strongly kneaded. A

are dependent upon agriculture or fisheries.

The cultivation of early potatoes, followed by cabbage and white cabbage and cauliflower, is general, and by this means, varied by that of vegetable seeds (spinach seed, seeds of the cabbage species, radish seed, and horse-radish seed), a very large turnover is made, sometimes £34 and more per acre.

This culture is entirely in the hands of small farmers, who often make a good living on no more than five acres of ground. It is true that much labor and money are spent for manuring and business expenses, but it pays well. The potatoes and cabbage are generally sold at public auction marts. At many places in North Holland auction societies have been established for that purpose, the board of which arranges the sales, looks to the exact filling of hampers and sacks, solves the differences between merchants and producers, and settles the account. The year 1904 was a very advantageous year, as high prices were realized.

BULL GROWING

Dutch bulls are known the world over for their good qualities, and they are largely grown in North Holland, principally in the district adjacent to the ancient city of Haarlem. The

area under bulb cultivation already covers 7,500 acres, and, according to the latest returns, is steadily expanding. Hyacinths and tulips are the principal bulbs raised; at present the former is the favorite, and a few years ago there was a boom in these flowers, when as much as £130 sterling was paid for a single bulb. Tulips, too, have had their palmy days, and it is on record that over 250 guineas have been paid for a special variety. Other bulbs raised include anemones, ranunculus, narcissus, crocus and iris.

The number of cultivators has greatly increased of late years, and the cultivation has extended in the whole district between Haarlem and Leiden. About 1850 thirty export firms were established in Haarlem and locality, a number which has increased to 150. Besides these there are in the bulb trade 2,000 independent bulb growers, who do not export, but regularly sell their bulbs to the exporting firms.

The keen demand for land suitable for bulb growing has driven prices up enormously, and has led to the loss of good bulb land in the centre of the district will fetch from £300 to £335. The extent of the trade may be judged from the fact that the exports amount to nearly 10,700 tons annually, which means that the exports have doubled

during the last seven years.

Bulbs are exported into nearly all countries and parts of the world, and about 70 per cent. of the whole production is sent to England, the next best customers being America, Germany and Russia.

The success of bulb culture is mainly due to the extraordinary favorable condition of soil and climate. The coarse grained sort of sand and the climate along the inner downs are exceptionally suitable for their cultivation, while the height of the water can be regulated at any time by the regulation of the sluice draining the polders. Manuring consists mainly of cow dung, applied in large quantities.

With the increase in the trade co-operation has made great strides. In 1860 a general society for the purpose of bulb cultivation was established, and it has at present 30 local sections, with 200 members. It owns a newspaper, an exchange at Haarlem, and regularly holds exhibitions. There are also special societies for the purpose of looking after the interests of the exporters and bulb growers. The main exporters' society has a mutual cash and intelligence office, which is in possession of information about more than 20,000 foreign consumers.

Rape and What It Will do for the Farmer

Although we have been favored with an abundance of rain this season, and there is on every hand plenty of good pasture, with every prospect of a good hay crop, yet on many stock farms rape is probably sown. The comparative cheapness of the seed, the excellent returns per acre secured, with the ease with which it can be grown on a great variety of soils, and the relish with which it is eaten by all kinds of farm stock, these qualities combine to make this plant one of the most important of our forage plants.

There are several varieties of rape but only one has given satisfaction in Ontario, and that variety is the Dwarf Essex. For this reason, the seedman, from whom the seed is to be bought, should be made to guarantee it to be true to name. The seed is of a dark purple or black color and can scarcely be distinguished from the seed of the ordinary Swede turnip. In many cases this seed has been sown in mistake for turnip, and the young plants, which resemble young turnips, treated as a root crop until the great development of the leaf as compared with the small spindly root revealed the true nature of the plant. The seed is very oily, and many varieties of this plant have been grown as a source for oil. The seed usually germinates in about ten days after sowing. Fresh seed should always be sown. It is seldom advisable to use seed that is more than three or four years old as the vitality decreases very materially after that age is reached.

BEST SOILS FOR RAPE

While the plant gives good returns on almost any soil, the best results are usually obtained from dark rich loams. Such soils are generally rich in nitrogen, which stimulates leaf growth, and as this is the desired end in rape culture such soils are very satisfactory. One may take it, as a general rule, in the preparing of the land for this crop; that it should be regarded as a root or hoed crop. Following this rule, sod should be plowed some time previous to the

sowing of the rape in order that the grasses and roots may become rotted and thoroughly incorporated with the soil so that the cultivation following will produce a fine friable seed-bed. Land which has been newly cleared, stumpy land, or in dry seasons, low flats give good pasturage when sown to this crop. Farmers in this locality who, instead of summer fallowing, sow rape as a preparatory crop for wheat, explain that it does best on land which has never before grown it, and some even go so far as to maintain that the longer it is grown on the same soil the smaller will be the returns. In order to supply water for the great evaporating surface of the leaves, the roots are very numerous and penetrate deeply into the soil. They are more numerous in fact, than those of any other of our common farm crops. The effect of these roots is of obvious importance in the use of this crop in preparing land for winter wheat or in fact for any of the shallow rooted crops.

WHEN AND HOW TO SOW

In certain rape favored parts of Ontario, rape, it is claimed, may be sown with good results as early as the last few days in April. However for the greater part of the province the best warm days in May will generally be plenty early enough. It is seldom advisable to sow later than the middle part of August. Good pasturage may be counted on eight weeks after sowing. Stock should be turned out with full stomachs and left on when the rape is a good height and the leaves have a bluish cast. Stock may be allowed to feed on it until quit late in the season, as this plant, like its near relative, the turnip, will stand quite a heavy frost.

It is most commonly sown broadcast at the rate of 4 lbs. to the acre. Most of our experiment stations, however, recommend it being sown in drills and its being treated as a hoed crop. When sown in this manner the drills should be twenty-six inches apart and one pound of seed should be used. The drills may be placed wider apart to facilitate cul-

tivation, but the greater the distance apart the less the yield. On most farms implements narrow enough can be secured to do the cultivating when the drills are placed twenty-six inches apart. With the soil on low or wet ground it is advisable to sow in ridges while the flat method usually gives the best results on the drier soils. By the drill method of sowing a greater yield can be secured. It has also the advantages of a hard crop in that by the cultivation it receives, moisture is conserved and weeds and insects are kept at bay. The stock where pasturing on it (especially sheep), will follow the rows and as a result there is less of the crop lost by tramping.

When sown with grain it is seldom a success. If the catch of rape is good, the leaves of it which have been cut with the grain, on account of their juicy nature prevent the rapid drying of the sheaves. High cutting of the grain, in seasons when straw is plentiful, is more satisfactory. Rape is sometimes sown along with the corn in the last cultivation but as the corn field is usually exceedingly dry at this time, and the corn itself so high and leafy as to exclude all sunlight, the rape is seldom a success. Even if it can survive these adverse conditions, it is severely treated in the harvesting of the corn.

AS A FODDER CROP

The uses of rape as a fodder crop are many and varied. It is pre-eminently a sheep pasture. A good acre of rape will support from fifteen to eighteen lambs for two months and give good gains. However, on account of the omnivorous nature of the sheep's appetite, which should be catered to at all times in order to secure the best results, it is good practice to allow the lambs to run on some good mixed pasture as well as the rape. The ewes will also do well on this pasture, and in the fall may be got in good shape for breeding by the same feed.

Nor are sheep the only class of farm stock that do well on this pasture; all kinds of young stock, as well as the more mature, make rapid gains on it, but should have other pasture as well. Nearly all steer-feeders regard rape as the best possible feed preparatory to winter feeding or fattening. Stock should be turned on with a full stomach, in the middle of the day, and left on. A small amount of clean oat straw or hay is often relished by the stock when on this pasture.

When one considers the great amount of pasture yielded by one acre of this crop in one year, a good year will grow about 10-12 tons of forage), its great palatability to all kinds of farm stock, the large and rapid gains secured from its use, one wonders, to say the least, why it is not more extensively grown. With the seed of the crop within easy reach of all there is no excuse for the farmer with small or unthrifty stock.

H. McFAVVEN.

Cardwell Co., Ont.

"The fools are not all dead yet," said the angry husband. "I'm glad of it, dear," calmly replied the other half of the combination; "I never did look well in black."

We want capable persons in every district to represent The Farming World at the fall fairs. You can visit your fall show and make a little pin money at the same time. Write for particulars to The Farming World, Toronto.

The Clydesdale or the Percheron

Live Opinions from Practical Horsemen as to the Merits of these Two Breeds

Percheron His Favorite

Editor THE FARMING WORLD:

I have been following with some interest the discussion in your paper regarding the comparative merits of the Clydesdale and the Percheron. So far, no one except Mr. Ballachey has favored the latter breed. I should therefore like to say a few words in support of the Percheron, and also in examination of the arguments brought forward by those advocating the Clydesdale. I shall consider the latter point first.

Mr. Smith, writing in your issue Clyde man and is not in a position of June 15th, admits that he is a to give an opinion upon the comparative merits of the two breeds from a farmer's standpoint. This is a very frank admission, and therefore when he goes on to say in the next breath that his reading and observation lead him to favor the Clyde, that neither Mr. Ballachey nor his Brantford friends have had any experience of his chosen breed to outrun his discretion and his balance of mind, not to speak of his logic. It is light that is wanted, not heat. Mr. Smith will be given the same opportunity to advance the Clyde as any one else is given to advocate the Percheron, but it is desirable that both sides keep within sane and just bounds.

Mr. Thos. McMillan, writing in your issue of the same date, very fairly and moderately advocates the Clyde. Evidently his experience with the Clyde has been happy, or his experience with the Percheron either unhappy or wanting. At any rate there is one argument of his that does carry weight. If the Clyde is in demand as a dray horse, the man who wants to raise and sell dray horses should keep with the popular breed. Whether or not this touches the question of the relative merits

of FARM HORSES each may decide for himself.

Dr. Reed's letter, in your June 1st issue, should command the attention of horsemen everywhere, because Dr. Reed is a recognized authority in that line. I cannot but feel, however, that, apart from a statement of the greater demand for Clydes, the doctor's only arguments in favor of the Clyde are its superiority in the show ring and the alleged necessity of "sticking to type"—breeding mares with Clyde blood in them to Clyde sires. I doubt whether the show ring test will give the same results as the farm test; and, in regard to the second point, the same argument would favor the Percheron if it had happened that most of our mares had a strong infusion of Percheron blood instead of Clyde blood. However, Dr. Reed, deserves our thanks for giving his opinion so frankly.

Mr. Robert Ness relates some

INTERESTING EXPERIENCE

of his French neighbors. It is open to question, however, whether or not this experience is distinctly unfavorable to the Percheron. In the first place there was only one Percheron sire tested, and it is never safe to generalize from one concrete

case. In the second case, it is more than possible that the poor results which Mr. Ness relates were due to the strong variation from type, so reprehensible in Dr. Reed's opinion. I cannot see, therefore, that Mr. Ness' letter can carry much weight as an argument.

The experience cited by Mr. J. G. Clark can also be interpreted in several ways, and is by no means conclusive.

As far as my own experience and observation go, I do not lay much stress upon them. The single individual's experience is, as a rule, so limited, that it would be presumptuous to generalize on such a narrow foundation. So far as it goes, however, I may say that as farm horses

I PREFER THE PERCHERONS

to the Clydes. I have not had any pure-bred animals of either class on my own place, but have had some that were half-bred—of both breeds. The Percherons were tougher, lighter and more active than the Clydes, which qualities I consider desirable in a farm horse. Six years ago I had some experience with a team of nearly, or quite, pure-bred Clyde mares, which sold for \$400. I drove them on a binder for about two weeks, with another native nondescript mare, on a Manitoba wheat field. I never want to drive another team of such sluggish, lumbering, lazy brutes as those. My own little horses—there is some Percheron blood in them—can do and are doing far more work than these two Clyde mares did, and they do not weigh over two-thirds of what the latter did.

In this locality I do not think there is any predominant breed, although the Clyde has perhaps

THE GREATEST FOLLOWING

Many of the Clydes are doubtless splendid horses, and it is quite possible that my own experience with them has been disproportionately unfortunate. Personally, however, I do not like a big, heavy horse for the farm. I would rather have four

twelve hundred pound horses than three sixteen hundred pounders. There is so much of my work—such as scuffling, drilling, mowing, cutting grain, running to town with a medium load, etc., etc., which requires quickness and agility, together with endurance, that I do not want any ponderous horses. Others, however, may be differently situated and may have different tastes. They will, therefore require differently built horses from those which I myself require. Each to his liking, and let there be a free field and fair competition with no exclusion.

W. C. GOON.

Brantford, June 27th, 1905.

Has Tried Both Clydesdales and Percherons

Editor THE FARMING WORLD:

I have read with interest the discussion in response to my letter in your issue of May 15th, about the Percheron and the Clydesdale. As none of your correspondents as yet agree with me, perhaps I may again be permitted to write. So far none of them speak from actual farm experience with both breeds and therefore they have not had the best opportunity of judging. This would lead one to think that there are very few Percherons owned by your readers, and judging from the opinions expressed it is also probable, that some poor specimens unobtainable in the United States at good prices, have been dumped into this country where the breed is not so well known.

One of your correspondents, Mr. Wm. Smith, credits me with saying that all Percherons are superior in the points mentioned to the Clydesdale. If my letter conveyed this meaning, it is not what I intended. The former would indeed be a wonderful breed if this were so. Mr. Smith, while admitting that he has not had an opportunity of comparing the breeds, and notwithstanding my statement that I drew my conclusions from experience, also ventures to say that I have not had such opportunity; and, as is usual with those who speak without knowledge, is entirely wrong.

HAD BOTH CLYDES AND PERCHERONS

My father, some years ago, imported and bred both Clydesdales and



Imported Hackney Stallion Income, sire Rosador, dam by Garton Duke of 1 caught two of England's best famous sires. This colt won first in two-year-old class at Industrial, Toronto second at Toronto Horse Show as a three-year-old, 1903, with fourth place as stallion best suited to sire carriage horses. Owned by W. C. Quickfall, Glenora, Ont.

Percherons and had for years several of each breed on his farm at the same time. I therefore consider that this afforded very good opportunity for comparison. One of my father's Percheron mares was never beaten in the show ring whether shown against her own breed or against others. This was a pretty fair test, at least of her superiority. I might also compare two horses which I myself have owned, a Percheron and a Clydesdale, which I consider typical of those that I have used. The former was a noble animal with well developed muscles and good legs and feet; in fact I could not find fault with him except his excitability after a period of illness; it was as needed, he worked him; no whip was a pleasure to the word and was as willing at night as in the morning. Notwithstanding his high spirits and hard work,

HIS WELL-SPRUNG EARS

were always covered with good firm flesh, not labby fat which some sluggish horses have. The Clyde, though perhaps the better worker of any that I have had experience with, is never ready; one has to speak several times before he starts. His lines are always slack, no matter how slow his mate, and if one has no whip it is necessary to throw stones or clods at him to keep him going. He is also stupid, and cannot get accustomed to gigs, cars, engines, etc., and though he drew a threshing machine for years the sound of escaping steam sets him wild. Now, I do not maintain that all Percherons and Clydes are like these two, but my

experience has led me to believe that they are very often similar.

INDISCRIMINATE CROSSING

whether of horses or of other animals is foolish. If a man has Clydes it would not, in my estimation, be wise to cross them with the Percheron or any other breed, and further, if a man breeds heavy horses for sale, and the Clydes sell best, by all means let him breed them. I think, however, that the Percheron is more likely to mate well with an ordinary mare. I have seen many raw-boned, shaggy-legged, flat-footed horses from Clyde sires, and very few such from Percherons. My father and I have owned some very fine half-bred Percherons. Most persons would think a Percheron, Shetland cross, most ridiculous. Two Shetland ponies and an Iceland pony on our own farm got with foal to a Percheron colt. Two of the colts made remarkably fine ponies, regular Percherons, but very little bigger than the dams, and as tough as whalebone. One of them is now used as a delivery horse by a grocer in Brantford, who will not part with him.

I am not advocating the Percheron out of self interest, for I am not a breeder of them, nor are any of my friends. I advocate them simply because, as a farmer, I consider them better than the Clydesdale. I would still like to hear the actual experience with both breeds of others, for conclusions drawn otherwise than from such experience are apt to be prejudiced.

G. M. BALLACHEY.

Brant Co., Ont.

Let them set the standard and throw all inferior hogs out of the market and the farmer will in every instance cater to the appetite of the consumer. There is a way a fast and loose game in every trade, and the bacon hog trade is no exempt. Every aggressive farmer wants a fair and square market price for the right kind of a bacon hog. First class hogs and first class prices are his aim and standard.

The hog industry has been the means of building up the farmer and it should be the aim and ambition of every farmer to be one factor in building up the trade and not hamper the industry with inferior graded hogs. The bacon hog trade means much to the farmer. It means ready cash in pocket.

The following are answers to your questions:

- (1) Chester Whites.
- (2) I found them profitable.
- (3) I feed the sows well on chopped oats and barley and sugar beets. These juicy roots insure a good flow of milk. When eight weeks old I wean them, keep a nice, clean straw bed for them, keep them warm, allow them to run in and out of hog house at their leisure, feed chopped oats and barley in mess, sloppy food and the by-products of the dairy until I get them growing nicely, when I change food, and feed corn with other feed and roots. I give them factory work to drink.
- (4) If hogs are good eaters and good fat producers, I have them ready for market at seven months. A good deal depends on the nature and temperaments of the hogs.
- (5) Buyers make no difference in prices between the best and the worst, and this is the idea we are trying to get at, or at least trying to teach. The buyers are the men who hamper the trade.

OLD FARMER.

Norfolk Co., Ont.

What the Hog Was Doing

Peter McArthur was telling of traveling down South when he sprung this one. He said that his train had stopped at a railroad station in North Carolina, and a red-complexioned hog was seen rubbing himself on a telegraph pole.

"That hog seems to be troubled with fleas or the mange," observed Mr. McArthur to a native.

"Mange nothing," replied the native to whom the remark was addressed.

"That hawk is a razorback an' he's stroppin' hisself!"

A Splendid Time to Visit Western Canada

On July 20-28 Western Canada's great industrial fair will hold in the city of Winnipeg. This is a most opportune time to visit Western Canada. The very best of its live stock and agricultural exhibits are to be seen at the great fair. In live stock especially the Winnipeg Fair will compare favorably with any other annual fair held in Canada, excepting perhaps Toronto, and even here it will not be far behind in some classes.

Besides the live stock and agricultural exhibits, which interest a farmer no matter where he is from, the exhibition is a fair, as in the past, have provided a list of amusement features not to be excelled at any similar exhibition this year. The outing, therefore, will be both pleasant and profitable, and will give one an impression of the progressiveness of the West that will be lasting. Those who enjoy a good horse race will experience a rich treat if they visit Winnipeg Fair.

More Good Advice for the Packer and Drover

Looking for Thick Fat Hogs

Editor THE FARMING WORLD: I am glad to know that you have taken up this very important question through the columns of your paper: "Our Bacon Trade in Danger."

The government has spent considerable money, as well as some of our packers, in trying to bring the standard of our bacon hog to a more uniform type. Good work has been done through the Farmers' Institutes and at our Winter Fair, Guelph.

A few years ago the drovers made a difference between selects, fats and light, but now they are classed all the same to the farmer. Who is to blame for this state of affairs, the drover or the packer? I am inclined to put the blame on the packers. Many of the packers are buying hogs now at a flat rate and paying points. Nearly all the hogs in this section are bought by the drovers without ever seeing them till they are landed on the scales. One price is paid for large or small (except sows) poor type or good type, the only commodity we have on our farms that is not sold on its merits.

WILL OUR TRADE IMPROVE

under the conditions of go back? I am inclined to think the latter. The majority of farmers still have the opinion that there is more money in feeding the short fat hog than the bacon hog. I believe that this to be quite universal in my four years on Institute work. On my trip last winter I found many farmers who were raising a nice class of hog, quite dissatisfied at the way hogs were bought by the drovers. Many of them remarked that they would go back to the fat hog again, as their neighbor who was raising them got just the same prices.

In my own section two years ago nothing but Tamworth and Yorkshire boar were in use. Now many farmers are driving miles to use a Berkshire boar or some other fatter breed. Can this sort of thing be continued without injuring the quality of our bacon trade? We should improve instead of going back. The packers admit that they can pay much more for No. 1 bacon hogs. Who should have this extra price? The farmer who breeds and feeds them, or the man who still sticks to the short fat?

As it is at present, the latter gets it. We find at our leading shows where large prizes are given for bacon hogs that the awards go to the Yorkshire or Tamworths as being suitable for the bacon trade. Then why not encourage the hogs of best bacon type and pay the farmer a premium to raise them?

J. W. CLARK.

Brant Co., Ont.

Drovers Hamper the Trade

Editor THE FARMING WORLD:

I have read with great interest the discussions in regard to the bacon hog in the recent issue of THE FARMING WORLD. The bacon hog does pay and pay well and when I say this I believe I am speaking the sentiments of every farmer in the Dominion. The ideal bacon hog in my estimation is the one that weighs from 160 to 200 lbs. That is the kind of a hog that I have always put on the market, live weight, although I have never received any more money than those who sold inferior ones. However, I got the well earned approbation of the buyer.

I do not blame farmers very much. This is a vexed question which should be settled by the packers and drovers.

The Grading of Butter and Cheese*

The Views of Practical Men in the Trade

Producer Entitled to Fullest Information

EDITOR THE FARMING WORLD.

I desire to thank you for your reference to the new classification and standards for cheese and butter.

I certainly think it would be a good thing to have these standards adopted all over the country. I have had that in mind all along. I take the ground that the salesman or maker is entitled to the fullest possible information concerning the defects which may be found in cheese or butter. I do not know of any better way of giving him this information than by having the standards clearly defined and published in such form that they will always be available to those who are interested. The old system of classifying all butter and cheese into either "finest" or "under finest," without any very definite standards, was not satisfactory. The term "under finest" is a very loose and indefinite description, and may mean almost anything. It seems to me that it would be in the interests of the trade as a whole if the various cheese boards were to adopt the No. 1 grade as the basis for all sales.

The standards have been carefully considered and several conferences were held between the Montreal Produce Merchants' Association and instructors for the different provinces. You will remember that this matter was first introduced by the writer at the conference of cheese makers held at Ottawa in November, 1903. A resolution was read to the convention of the Eastern Ontario Dairy-men's Association at Belleville the following winter, and received the hearty approval of the meeting. The resolution referred to suggested the adoption of three grades instead of two, but did not take up the question of standards. In adopting the standards it was necessary to use expressions and terms which are intelligible and have a definite meaning, not only to the cheese and butter makers, but also to the dealers in these products.

I am pleased to note that some of the cheese boards have already adopted the new classification and standards as a basis on which to sell their cheese and butter.

J. A. RUDICK,
Dairy Commissioner.

Ottawa, Ont.

Grade All Export Butter and Cheese

EDITOR THE FARMING WORLD.

The grading of cheese and butter is a matter which is certainly of great importance and which I have, for some time past, given considerable thought to. The suggestion made in the editorial section of last week's issue of your paper would, no doubt, if applied, broaden the field of usefulness of the grading standards issued by the Department of Agriculture. It seems to me, however, that unless there are some strong objections to its adoption, it is practically amounting to insurmountable difficulties—we should strive to work towards the system of grading all cheese and butter for export purposes. This would not only do away with some existing evils in our dairy business, some of what might be termed

* We would be pleased to have the views of anyone interested in this question. A number of letters have been held over for lack of space.
—EDITOR.

tricks in the trade, but should act as a powerful stimulus to the producers of cheese and butter to strive to turn out a better article. For instance, if one factory were turning out an article of cheese that was being graded as superior in quality and an adjacent factory were regularly having its cheese placed in a lower grade, the latter would practically have to make a choice between doing better work and going out of business. Once the patrons of a factory were to learn that their cheese were not grading as high as that of their neighbor, and consequently not selling for as much, they would begin to ask that all-important question, Why? and this would lead to a search for the location of the cause, after which the remedy or remedies would soon be applied. If the cause were the supplying of inferior milk to the factory there would be an honest effort on the part of the manager to procure and the patrons to supply a better quality of milk, and to force careless ones to do better work. If the cause were the factory or its equipment or surroundings, such as an unsuitable curing room, unsanitary conditions, or a bad water supply, an effort would soon be made to improve along these lines. Again if the trouble were due to the employment of a cheap, incompetent maker, employers would soon learn that this was a penny-wise pound foolish policy, and that the best maker procurable is the cheapest in the long run.

Our dairy industry is a national industry, and we cannot afford to allow any of our factories to turn out an inferior quality of goods, and so tend to hurt the reputation of Canadian dairy products. Nothing should be hidden in connection with the work, but rather the fullest publicity should be given. If a factory turns out an inferior article of goods this should be known and particularly should it be known by all connected with the factory, so that defects could be remedied, and I know of nothing that would help to bring this about more quickly and more effectively than the grading of our cheese and butter.

J. W. MITCHELL,
Eastern Dairy School Kingston, Ont.

Hard to Work Out in Practice

EDITOR THE FARMING WORLD.

I have a copy of THE FARMING WORLD which you refer editorially to the standards for grading cheese and butter. So far as I can see there would be no objection and possibly some advantage in having these standards apply to cheese and butter all over Canada, although up to the present, so far as I know, there has been very little demand for such grading outside of Montreal. The chief advantage of such standards is where the cheese and butter are graded as in New Zealand. The difficulty in making these standards apply to all of Canada would be to secure competent men to classify. What one man would grade as No. 1 another might grade as No. 2, and so on. Unless there are competent men employed by the Government whose judgment could be relied upon, it strikes me that this idea of grading and classifying would be very difficult to put into practice.

H. H. DEAN,
O.A.C. Guelph, Ont.

Does Not Favor Grading Cheese and Butter

EDITOR THE FARMING WORLD.

As a manufacturer of cheese and butter for the last thirty years, I should like to say a few words through the columns of your excellent paper with regard to the classification and standards of cheese and butter which appeared in your issue of the 13th inst.

As a preliminary, I might say that if the grading referred to is for the sole guidance of the official referee, any criticism as to its merits and its practical application to the manufacture of cheese and butter would, perhaps, be superfluous; but there appears to be a pretty general opinion that this grading of cheese and butter is going to inaugurate a golden era for those industries, and, therefore, I think that a little criticism of the matter would not be out of place.

First, as to its being of any benefit to the manufacturer or to the dairyman. Such will not be the case. To prove this, let us take the system of buying and selling now in force. All our cheese is sold, in the first instance, either on the board or privately, as "finest," and if, on inspection, there are found not to be so, they are rejected. The original transaction is then at an end, and the rejected cheese is made the subject of a new transaction—the buyer offering a price more in accordance with what he considers the cheese is worth, the seller, of course, being at liberty to accept or refuse the new offer. Here I would say that I know of no instance where the buyer has given, or did not, in fact, voluntarily make known to the seller the particular fault or faults on account of which the cheese were rejected.

MANUFACTURER KNOWS FAULTS

The manufacturer was well acquainted with all the various faults set forth under the two grades long before any classification was made by the Dairy Commissioner. Hence so far as his knowledge of these faults is concerned, he is better off than he was before, and, as he is still selling under the same system, derives no advantage from the faults being classified, for the simple reason that he has to sell, and rightly so, his cheese at their market value. It might, however, be urged that he now has a more definite idea of what is meant by "finest," and, moreover, being able to refer any dispute as to quality to the official referee he does not now stand so good a chance of being taken advantage of by the buyer. To this it may be truly said that he has always had a means of redress were an unfair advantage taken of him. In short, he could invoke the aid of the law if he is having a better knowledge of what constitutes "finest," there is not, I am sure, a cheese manufacturer of any note who has not understood the matter quite as well as the exporter.

WILL NOT BENEFIT DAIRYMEN

Second, as to the grading and classifying benefiting the consumer. This question can also be answered negatively. Whatever the fault of the cheese, the man who provides the milk bears no loss—the manufacturer guarantees him the full market price. He is, however, indirectly, and equally with the manufacturer and the exporter, interested in the quality being kept up. Will the grading and classifying tend to a greater production of finest or cheese of a better quality? I have no hesitation in saying that it will do neither. On the contrary, I think that if it is made

The Movement for Better Seeds

Farmers Lose by Poor Seed—Insect Pests and Remedies

The second annual convention of the Canadian Seed Growers' Association was held in Ottawa on June 27-29 last. The attendance, though small, was representative, and a most profitable meeting was held. The association's aim is to bring about an improvement in the class of seeds sown on Canadian farms by means of special selection and breeding. The association has on its roll 245 farmers actively engaged in seed selection. Many of these have been engaged in this work for several years, and have demonstrated the value of this work. These farmers are divided as follows: Maritime Provinces, 54; Quebec, 51; Ontario, 99; and Manitoba and the West, 42. The association issues certificates to members who comply with its rules and regulations, and so far have issued 1,430 for hand selected; 1,550 for improved, and 184 for crop seed. As high as \$4.75 per bushel was paid last spring for certified crop seed in the west, said Secretary G. H. Clark in concluding his report.

Prof. Robertson, president in his opening address referred to the association as one of the important factors that is making for agricultural progress in Canada to-day. Seeds and weeds are the two things that should have the consideration of every farmer. Good crops from good seed and the suppression of weeds would lead to greater prosperity on Canadian farms.

PROGRESS OF THE WORK

The reports of the district superintendents gave a very comprehensive review of the work of the association in the different provinces.

For the Maritime Provinces F. W. Broderick reported an unfavourable season in 1904 owing to drouth. The seed plots were well looked after and fairly free from weeds. He advised holding a central seed fair for the Maritime Provinces, and also spring seed fairs and short courses for seed grading and selection.

J. C. Côté, for Quebec, stated that farmers had been deceived in buying seed said to come from reliable sources, but which were very unreliable. A leading farmer should be chosen in each district to take up the work. The work of the association gave good satisfaction. Wherever seed selection had been tried larger yields and cleaner grain resulted.

In Ontario, L. H. Newman reported that it was difficult to get the members together. The association must be visited at least once a year to keep up the interest. The scope of the work was practically unlimited. There are many conditions of soil and climate, and hence the need for more varieties. Unless selection was practiced home grown seeds were not always the best, and it was advisable sometimes to bring in new seed. About 12,000,000 bushels were required to sow the annual acreage, and a great deal of this might be very much improved. He advised forming local associations.

Reporting for the West, James Murray stated that since July, 1904, the number of members had increased from 18 to 42. There was great apathy in the west regarding good seed. Many farmers sell all their good wheat and buy the screenings or poor wheat from their neighbors for seed. But the better class of farmers recognize the value of good seed. The large farmer of the west often considers

it beneath his dignity to bother with small seedlings as a seed plot. Some of the western members do not take enough care to keep the seed pure.

IMPROVING FIELD CROPS.

The chief feature of Tuesday evening was an address by Dr. Wm. Saunders, director of the Dominion Experimental Farms, on the introduction and breeding of field crops and the distribution of the seed obtained.

The main factors in successful farming were preparation of the soil, plant food, moisture and the sowing of good seed. Some of these were controllable and some uncontrollable. When the Experimental Farms were established in 1886 it was enacted that they should test varieties of seeds and distribute worthy ones among farmers. Efforts were at once made to secure varieties of early maturing grain for the more northerly localities. Varieties were sought for, including shrubs and plants, in all the leading grain growing countries of



L. H. Newman, B.S.A.
Secretary Canadian Seed Growers' Ass'n.

the world. As a rule varieties got from high elevations were not as productive as the best sorts grown in Canada. The crops from the best sorts grown on the Farms were distributed among farmers in small lots. In 1905 42,000 samples were distributed, making a total of 500,000 samples in all distributed since the Government farms were started. Continuing, Dr. Saunders said that the improvement of seed grain could best be brought about by bringing in new varieties, by cross-fertilization and by selection.

He was followed by the Hon. Mr. Fisher and Dr. H. Wetber, of Washington, who gave brief addresses. The former amid great applause stated that he believed in the work the association was doing, and that he would set apart \$2,550 in the estimates to meet the financial needs of the association for the coming fiscal year.

THE SCOPE OF THE WORK.

Seed Commissioner Clark, in discussing the scope of the work of the association on Wednesday morning, stated that for the present it should give attention only to the work laid down in the constitution, and leave cross-breeding and kindred subjects to experimentalists. He advised the forming of branch associations and the issuing of an annual catalogue giving the names of members who have seed for sale.

COPPER SULPHATE AND FORMALIN.

Mr. Frank T. Shutt, chief chemist, Dominion Experimental Farms, took up the action of certain smut preventives on the vitality of seed. Mr. Shutt pointed out that while bluestone (copper sulphide) and formalin

are the treatments generally made use of, a special preparation—sold under the name of "agricultural bluestone"—was extensively used in the North-West last year. On analysis it was found that the latter consisted of one-third sulphate of copper and two-thirds sulphate of iron. These three preparations, and sulphate of iron as well, were made the subject of experiments conducted by Mr. Shutt with a view to learning the effect of each in preventing smut, and the effect also on the germinating power of the seed to which the application was made.

In one experiment, in which various lots of seed were sprinkled with different solutions, these results were obtained: Seed sprinkled with sulphate of copper solution showed 73 per cent. of germination. Seed sprinkled with "agricultural bluestone," which is two-thirds sulphate of iron and one-third copper, gave 80 per cent. germination. And seed sprinkled with sulphate of iron alone, 99 per cent.

In two other experiments with formalin, made in different years, the germinating power of wheat was reduced from 92 to 70 per cent. in one case, and from 100 to 86 per cent. in another.

But while the bluestone and formalin were most injurious to the vitality of the grain treated, they were also by far the most effective as preventing smut development. There was practically no smut in the grain crop where the seed had been treated with either formalin or bluestone; on the other hand, the treatment with sulphate of iron alone seemed to produce no effect at all, and the extent of the effect of the "agricultural bluestone" was determined solely by the proportion of sulphate of copper contained in it.

It has been found that the addition of lime to bluestone—the Bordeaux mixture—prevents the burning of foliage in spraying fruit trees, while at the same time the effect of the bluestone in preventing fungus disease is not thereby lessened. Thinking that the same might hold good in the treatment of seed grain, Mr. Shutt made an experiment in dipping seed grain in lime water directly after it had been sprinkled with bluestone. It was found that this had a very material effect in reducing the injury to the vitality of the grain by the bluestone, but this effect was wholly offset by the lessened effectiveness of the treatment in preventing smut.

Three general conclusions may be drawn from this experiment. Either formalin or bluestone will be found wholly effective in preventing smut. Equally good results will be obtained by soaking for five minutes or sprinkling. The grain should be dried and sown as quickly as possible after treatment, since the longer seeding is delayed the greater will be the reduction in the germinating power of the seed. Allowance should be made, in the case of treated seed, for the destruction of a quarter to a third of the grain to treatment.

FIGURE 1348
"On the average insect pests collect as their toll to per cent. of all the cereal crops grown." So said Prof. Lockhead in his address on insect and fungus enemies of cereal crops and their treatment. But the farmer is not helpless. By following certain cultural methods he can prevent the ravages of these pests to a very great degree. These are: (1) Clean farming, destroying all plant refuse where insects multiply very quickly. (2) High culture, vigorous healthy plants overcome insect and fungus weak ones, hence the need of high

culture to insure vigorous plant growth. (3) General farm management, such as crop rotation. Short rotations help insects; change the crop as frequently as possible. (4) Time and method of plowing, harvesting, etc., have considerable effect on insects. Deep fall plowing is advisable for the wire worm and white grub. Harvest early for the clover seed midge. Co-operation of farmers is necessary to make this effective. But losses do not end when the crop is harvested. Insect enemies follow the grain to the granary, and to 20 per cent. of the crop is frequently lost. This loss can be prevented by the carbon bisulphide treatment. Allow the chemical to evaporate in a tight granary, and the vapor will pass all through the grain, and destroy the weevil. One pound of the chemical is used to 100 bushels of wheat.

Dealing first with the cause of rust, Prof. Loehhead said that most weather was not the cause of the evil, although the disease is usually more abundant in damp seasons. Rust is undoubtedly more prevalent in fields of wheat located near barberry hedges, but that the propagation of the disease is due to the barberry is shown by the fact that it was found in the West last year, where there is no barberry. One of the greatest investigators had expressed the opinion that the germ of the disease was in the grain itself, and that the development or non-development depended upon favorable or unfavorable conditions. As a means of prevention, the development of varieties which are locally rust-resisting was recommended—a matter of great difficulty, since a variety may be rust-resisting in one section and not in another.

He also referred to the "corn-borer," an insect working in the corn in Kent county, mentioned in THE FARMING WORLD recently. He recommended complete destruction of the old stubble and stalks in the fall as a means of preventing the evil from becoming worse another year.

BETTER CORN.

Prof. L. S. Klink, of the new Agricultural College, St. Anne's, Quebec, dealt with corn breeding in the corn belt. The corn belt was the agricultural belt of the central and western States. There were a bush. less yield per acre in this belt than in the Eastern States. The object of the work conducted to improve this crop was not to increase varieties but to develop those grown to suit localities. Stock feeders want more protein in corn. Ordinary corn has too much oil for bacon purposes. There are no two corn plants alike, they are infinitely variable.

In this connection Mr. Newman called attention to the serious loss in the corn crop in Ontario by barren stalks—stalks which do not bear ears. In Illinois this loss had, by selection, been reduced to the vanishing point.

Prof. Zavitz, of the O. A. C., stated that from samples tested last spring the germination of corn is to 95 per cent. The average germination of the corn planted in Ontario would be about 75 per cent.

Evidence of improvement in plants by selection formed the topic of a most valuable paper by Mr. Zavitz. We have secured a copy of this paper which we will publish later.

A FARMER'S GOOD WORK.

What individual farmers can do by selection is well shown by the experience of Mr. Donald Innes, of New

Brunswick, one of the successful competitors in the Macdonald-Robertson seed competition. Mr. Innes used White Fife on one plot applied to this competition. His first seed was good, because he obtained it from the Experimental Farm, Ottawa. Still, in three years, by selecting from year to year, he increased in yield, of a quarter acre plot, by 125 lbs., or at the rate of over eight bushels per acre. He increased the yield of a quarter acre plot by 138 lbs. in the same time. Part of this increase, Mr. Innes said, was doubtless due to gradually improving methods in cultivation, etc., but at least two-thirds of the result he attributed to careful selection of the seed from year to year.

Fred Kirkham, a farmer from Saltcoats, Assa., gave corroborative testimony. Mr. Kirkham said he had tested, while farming in England, the system of changing seed; he had tested since coming to Canada the method of selecting seed, and his experience convinced him the latter gave much the better results.

Midway between the two was the experience of a Quebec farmer, Mr. Davidson, who said he had, in the last six or seven years, increased his yield of general farm crops by 30 per cent., by means of selection.

Wednesday evening was given up to an illustrated lecture by Dr. Welber, in which from stereotyped views he showed what was being done to improve the cotton and orange crops of the Southern States by selection and breeding.

SELLING THE SEEDS.

Mr. S. E. Briggs, of Steele, Briggs Co., Toronto, gave one of the most practical addresses at the convention. Among other things he said: Members of the association have begun the business of producing clean seed; the practical question now before them is, how is this seed to be disposed of to the best advantage? It would be impossible for each individual member to dispose of his own seed in a retail way, the expense and the difficulty of forming a connection would form obstacles too great to be overcome. There were, to his mind, two ways only by which satisfactory results could be obtained: one was by co-operation on the part of members with a view of selling as a body, and the other by making use of two or three reputable seed houses. Mr. Briggs was of opinion that the latter would be found the more satisfactory way from the fact that these houses have brought trained intelligence to the work of selling and have all organizations extending from one end of the Dominion to the other for this purpose. If the system of selling through reputable seed houses were adopted, he would suggest that the members furnish the seed in sealed packages with the pro-

per certificate attached, and then it would be certain that the seed would reach the user in the same condition as it left the hands of the producer.

Mr. Briggs criticized the distribution of seeds made annually from the Experimental Farms, as they cost too much for the good which the country derived from it. Farmers given free seed in this way should receive special instruction how to grow and handle it in the best way.

PLANTS AND ANIMALS.

Mr. J. H. Grisdale, agriculturist, C. E. Farm, in a well thought out paper, outlined the common principles which underlie improvement in animals and plants. The best seed growers will be found among good stockmen. A balanced ration is best for both plants and animals.

In a brief address before the close of the convention, Dr. Fletcher promised his hearty co-operation in assisting members in fighting insect pests. To get a good crop of clover seed it is best to have the first growth eaten off or cut before the middle of June. Sowing at the end of September instead of in August, will help to get rid of the Hessian fly.

The closing paper was on the best method of giving publicity to the work of the association, and was prepared by W. J. Thompson, and was presented by W. L. Smith and J. W. Wheaton led off in the discussion.

OFFICERS ELECTED.

President—Dr. J. W. Robertson. Vice-Presidents—Prof. C. A. Zavitz, Guelph, Ont.; Messrs. G. A. Giguault, Deputy Minister of Agriculture, Quebec; John Mooney, Valley River, Man.

Secretary-Treasurer—L. H. Newman, B. S. A., Ottawa. Directors—Prof. C. A. Zavitz, Thos. A. Peters, Fredericton, N.B.; G. A. Giguault, Quebec; Thos. H. Wolford, Cardston, Alta.; Hugh W. Gibson, Woolsey, Assa.; W. L. Davidson, Bethel, Que.; Morris Middleton, Vernon, B.C.; Thos. S. Waugh, North Bedeque, P.E.I.; J. O. Duke, Olinda, Ont.; John Mooney, Valley River, Manitoba; M. Cumming, Truro, N.S.; Geo. Harcourt, Regina, N.W.T.; J. W. Wheaton, Toronto, Ont.; W. L. Smith, Toronto, Ont.; Geo. Batho, Winnipeg, Man.; W. J. Black, Winnipeg, Man.; Wm. Thompson, London, Ont.; John Readey, Charlottetown, P.E.I.; L. S. Klink, St. Anne de Bellevue, Que.; and Donald Innes, Tobique River, N.B.

NOTES.

The proceedings of the convention will be published in full. Farmers interested in good seed should write the secretary and secure a copy when ready.

Prof. Robertson announced that probably next year the C. P. R. will

(Continued on page 551.)

\$1 and upwards received on deposit. Interest compounded half-yearly at 3 1/2 %

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THE HOME WORLD



Look for things to be glad about. Insist on being happy. It is your duty; it costs effort, but it pays. Happiness comes only through making those around you happy. Get the happiness habit without delay.

If I Knew

If I knew the box where the smiles are kept,
No matter how large the key,
Or strong the bolt, I would try so hard—

"Twould open, I know, for me.
Then over the land and the sea,
broadcast

I'd scatter the smiles to play.
That the children's faces might hold them fast
For many and many a day.

If I knew a box that was large enough
To hold all the frowns I meet,
I would like to gather them, every one,

From nursery, school and street;
Then, folding and holding, I'd pack them in.

And turning the master key,
I'd hire a giant to drop the box.
To the depths of the deep, deep sea.

At the Carp County Exhibition

(From the Youth's Companion.)

THE day before the opening of the annual fair in Carp County, Gilbert Ware, the nineteen-year-old son of the president of the Agricultural Society, was in charge of the entry books in the administration building. The secretary, who usually attended to the matter, was busy superintending the erection of a new band-stand, the old one having at the last moment unexpectedly collapsed.

There were seven books open upon the long counter in front of Gilbert. Near them a stack of entry tags waited to receive the exhibitors' numbers, the names of their exhibits and the classes to which they belonged. Each entry-book contained a long list of articles for which premiums were offered with blank spaces for the exhibitors' names. It was really a very simple arrangement, and for the first hour, when the exhibits arrived slowly, Gilbert had no trouble. But ten o'clock found his table piled high with cucumber pickles, crocheted bed-slipper, cut flowers, dressed dolls, fruit, works of art, cabbages, and canary-birds in cages.

A score of impatient exhibitors were demanding exhibition tickets, calling attention to the merits of their especial brand of potatoes, and insisting upon being attended to at once. Some of the men were making pathetic attempts to give names to the articles of fancy work entrusted to them by their womenkind.

"One at a time," pleaded Gilbert, pressing his hands to his head. "It's this man's turn, Your name, please?"

"Olaf Oleson."
"Number two hundred and twenty-five. What have you?" asked Gilbert, writing the same.

"Apples, vinter cabbage, some yelly and yam for my voman, some sewing-work, some—"

"Hold on! Let's tend to the apples first. What kind—Duchess or Oldenburg?"

"Yaw."
"They look like Baldwins," objected a bystander. "They're Baldwins, aren't they?"

"Yaw," assented the Swede.
"No, they're Red Astrachans," said a second objector. "I've got some just like 'em."

"Well, fix it up with the head of that department. I've entered 'em plain apples. What's this cloth thing?"

"Sewing-work. My voman, she—"

"Yes, yes! But what's its name? Is it knitted, embroidered, or hem-stitched. Is it a table-cloth, a rug, or a sofa pillow?"

"Yaw," replied the man, obligingly. "I must have help!" cried Gilbert, springing up and making for the door. "I'll be back presently."

He looked up and down the road, but the prospect was not promising. The working force was inadequate, the heads overburdened, and the fair grounds were three miles from town. There were people enough, to be sure, streaming in at the gates with more exhibits for Gilbert to enter, but he saw none that were likely to make valuable assistants. Suddenly, however, he caught sight of a girl who was flying up the road on a bi-

cycle with a small parcel dangling from her handle-bars. He recognized in her a class mate, and one of the brightest girls in the high school.

"O Virginia," he shouted, "wait a minute!"

"Did you call me?" asked the girl, springing to the ground.

"Yes. Could you help a fellow that's in a peck of trouble? You don't need to go home, do you? I brought lunch enough for two. Mrs. Bailey is going to make coffee over the popcorn man's fire, and we're all to have lunch in her building. I need you awfully to help me with the entry-books. The fancy-work has gone to my brain. I can't see how a woman can work for a year on a piece of sewing and then not know what to call it when it's finished!"

"I'll do what I can," laughed Virginia, "with the prospect of one of Mrs. Bailey's good lunches to cheer me."

"I'm your friend for life!" said Gilbert, lifting the bicycle up the steps.

Virginia promptly separated the sheep from the goats to be accurate, the pumpkins from the Battenberg lace. When the secretary looked in an hour later things were going finely, the piles of entry-tags had been materially reduced, and the crowd of waiting exhibitors had dwindled to a few scattered individuals.

"Now, that was a bright idea," said the secretary, catching sight of Vir-



The City Girl (on a visit to the farm): "Oh, is that a bay fork? Do the cows eat with that!"

THE BOYS AND GIRLS.

The Two Sides of it

There was a girl who always said
Her fate was very hard;
From the one thing she wanted most
She always was debarred.
There always was a cloudy spot
Somewhere within her sky;
Nothing was ever quite just right,
She used to say, and sigh,
And yet her sister, strange to say,
Whose lot was quite the same,
Found something pleasant for herself
In every day that came.

Of course, things tangled up some-
times,

For just a little while;
But nothing ever stayed all wrong.
She used to say, and smile.

So one girl sighed and one girl smiled
Through all their lives together.
It didn't come from luck or fate,
From clear or cloudy weather.
The reason lay within their hearts,
And colored all outside;
One chose to hope, and one to mope,
And so they smiled and sighed.

How to Train Your Pets

Dogs, cats, rabbits, white rats and mice, guinea pigs—all may be taught. Of course the number and achievements of the dogs are always in the lead. Although some trainers suspect that cats have as great intelligence as dogs, their lack of obedience renders them far more difficult pupils. For tricks alone, there is no dog that learns as fast as the black French poodle. For general intelligence, "humanness," the bull terrier stands at the head of his class. The bull dog is intelligent, but too stubborn to be easily taught. The terrier has much the same temperament. A fox terrier is quick as a flash to understand, but it lacks the power of attention, it is scatter-brained.

A simple trick, such as sitting up, walking on the hind legs, shaking hands or "dropping dead," can be learned by the dog of average intelligence in a month at the outside.

So many of the tricks involve standing on the hind legs that this is usually the first course. Waltzing, jumping, begging, walking, all begin with the standing position. Induce the animal to do the trick; never

force him to do it unless there is no other way. The dog is not placed in a standing position; instead, something attractive is held above him and he unconsciously rises on his hind legs to reach for it. When he is once in this position it is an easy matter to lay an encouraging hand on his shoulder and show him by the tone of your voice that he has done the right thing.

After the dog has learned to stand on his hind legs the waltz step may follow. Hold the bit of biscuit above his head and teach him to stand there waiting for it as long as it is your pleasure to hold it. Avoid tiring him by imposing on his patience. When



A pair of Trained White Mice.

Aerial feats are the most successful for animals that climb. Cats and rats climb by nature and may be taught tricks that involve climbing. Rats learn to perform on a trapeze and to walk the rope. A cat in a show was once taught to make a balloon ascension and come down in a parachute. Not even one of its nine lives was endangered by this performance as it would have fallen on its feet. The guinea pig was never made for climbing and all of his tricks must be on the ground. He has a simple mind, and his performance seldom goes beyond the drawing of a toy wagon. The sight of hay or carrots will induce him to do this.

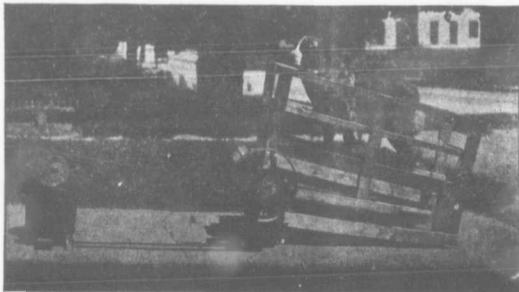
Jumping the rope follows simple jumping. The dog or cat is encouraged to jump for something held high; in time it does this at the command. After this feat is learned, the rope should be swung under it while it is in the air, and over it as it comes down. In time it will associate the rope with the feat.

How to Play "Turtle Race"

Any number may play, and no one player is "it," for all are "it" together. The game commences by each choosing the kind of turtle he intends to be. One, perhaps, is a land tortoise, another a snapper, another a mud turtle, and so on. Then they all sit in a row, resting their chins on their knees, and each holding his left ankle with his right hand, and his right ankle with his left hand. This is a very difficult position to keep. At a given signal the turtles start for a goal a short distance away.

It is the object of the game for the turtles to waddle to the goal and go back to the starting point without removing their hands from their feet. Many let go before the proper moment, the others shout "dead turtle" and keep on leaving their unfortunate companions in the background. The rules of the game demand that he wait there until the first successful racer reaches him on his way back and touches him with his elbow, by which he is supposed to instil new life into the poor dead turtle. The latter immediately starts out again, and finishes in the best style he can. As there are always several dead turtles, he is never lonely in his effort to succeed. The winner is, of course, the one who returns to the starting place first.

A passenger on a train, being greatly irritated by the voices of a drove of children in the same coach, scowled on the woman by whom they were accompanied and exclaimed: "What is this—a family or a picnic?" "These are all mine," replied the woman, severely, "and it is no picnic!"



The dog freezes the family ice cream.

THE KUCHE

When Baking Cake

No matter how good a recipe you have your cake will be a failure unless it is carefully baked, and it is sure to fail if it is taken out of the oven before it is done. It is the easiest thing in the world to tell when a cake is baked enough; press the cake gently with the finger and if there is no dent the cake is done. Some old and experienced cooks hold a cake to their ear and if they can detect the slightest noise they know the cake needs more baking. One woman whose "angels' foods" never fell always kept everybody out of her kitchen until the cake had been in the oven thirty minutes. A sudden jar will hurt any kind of cake while it is baking, so the oven door must always be carefully shut.

Five Good Ones

A NICE ESCALLOP—Mix together $\frac{2}{3}$ cups each of finely minced ham and bread crumbs; pack in deep patty pan tins; pour in a little milk; break an egg over each and bake in a moderate oven.

LADY DAINTY CAKES—Stir to a cream a cupful of fresh or well washed butter; add slowly a cupful of granulated sugar, three eggs, and two cupfuls of finely sifted flour. Mix and roll thin, then cut into small, round cakes. Beat a tablespoonful of powdered sugar into the yolk of an egg and mix with the yolks of the cakes with it, grate almonds over them and bake a delicate brown.

COLONIAL CAKE—Cream one cup of sugar with a third of a cup of butter and then beat in two eggs, the yolks and whites of which have been first whipped separately, a cupful of milk in which is dissolved a teaspoonful of soda, and lastly two cups of flour with two tablespoonfuls of cream of tartar sifted in it. This is an old-time recipe and used for both layer and loaf cakes.

DRESSING FOR TOMATO SALAD—Two eggs, one cup whipped cream, one-half lemon, sugar, two tablespoonfuls olive oil, salt. To the yolks of the eggs, beaten very stiff, add the oil and juice of the lemon very slowly, beating hard all the while, until it has all been added and is quite thick. Then add the beaten whites of eggs, salt and sugar to taste, and last one cup of whipped cream; whip all together until very stiff and set on ice until ready to serve.

CHERRY PIE—Take enough flaked wheat to make the crust. Add a little salt. Put in just enough milk to moisten thoroughly. Let stand two or three hours. Butter the tin to prevent sticking. Spread the wheat over the pan the same as pie dough. Then set in a warm place, probably on the shelf over the stove—till thoroughly dry. Take out cherry pits, add sugar, spread the cherries over the crust, then (for meringue) a layer of whipped cream. If made properly it makes a delicious pie. In the winter evaporated cherries may be used if soaked over night in just enough water to cover.

Hints for Canning

I am convinced that for handling fruits when canning or preserving, or anything else where there is dan-

ger of crushing, chopsticks are better to use than a fork or spoon, either one of which is apt to leave an impression. A little practice with the sticks is convincing.—I. R. D.

Having two small beds of raspberries, one red, the other black, I preserved and canned them together, sometimes one kind and then the other predominating. Only in this way did I have enough at one time to justify working with. When using them our family had a succession of pleasant surprises as each jar possessed a different flavor. The red berry lends delicacy to the black, while the black berry offsets the sickly flavor of the red, which is so objectionable to some people.—F.A.V.

In screwing the lids on my glass fruit jars I find by holding a piece of sandpaper in my hand it prevents slipping and that jars can be sealed tightly. The same method may be used to unseal the jars.

To Clean Coffee Pots

One housekeeper has found something better than the periodical boilings with various cleansing materials in order to remove the dark stains on the inside of the coffee pot, whether it be porcelain lined or tin. If a tablespoonful of sal-soda be dropped in the pot, and boiling water poured over that, a rub with a mop will take off the stain like magic. Rinse out with more hot water, dry thoroughly and your coffee pot will always be ready for the most rigid army inspection and best coffee making.

Old-time Buns

Mix to a stiff batter three cups of milk, one of sugar, a yeast cake (or cup of yeast, as it used to be), and the necessary quantity of flour. Mix at noon and allow the batter to rise until night, then add a cupful of sugar, one of currants, one of molasses, a teaspoonful of soda, one of nutmeg, one-half teaspoonful of cinnamon, the same of ground cloves. Mix again to a stiff batter, set to rise over night, make into shapes and when baked wash the tops with raw egg.

Jellied Cutlets

Put the best end of a neck of lamb in a saucepan with an onion, some bay leaves, pepper and salt, see the lid is fixed on tightly, and set over the fire to braise, until quite tender. Take out, and when quite cold cut into neat cutlets. Put some gelatine or some isinglass in some stock, and color a nice dark brown, dip the cutlet in this and put on one side until cold. Arrange them in the middle of a dish and put round some chopped lettuce and tomatoes cut in slices on the top.

Corn starch will remove grease most effectively. Rub a little fresh, dry corn starch into the soiled place, and it will at once begin the process of absorbing the grease. Brush the first used off carefully from the garment, and proceed in the same way with more until the disfigurement has entirely disappeared.

Order is a beautiful thing in the house, but as a writer in a recent magazine points out, it is not always understood properly. She says: "The order that makes for restfulness and for comfort

Windsor SALT

is all salt. Every grain is a pure, dry, clean crystal. That is why it never cakes—dissolves instantly—and goes farther than any other.

Insist on having
—WINDSOR
SALT.

is vital. It cannot exist in crowded rooms. Furniture is made to be used and books are made to be read. If the disarranging of a room or the misplacing of a book upsets the order something is wrong and that something is the crowded condition. Get rid of the superfluous. Most rooms have too many pieces of furniture, and all rooms have too many things."

Love is Catching

Love is catching—do not fear—No one ever died who caught it; It is wise to have it here, And it lasts if you have sought it.

Do not think to flee away

From this happy, best condition; For the law you must obey, Given by the Great Physician.

Moth Measures

In spite of care, moths are sometimes in evidence in the middle of summer in trunks or closets supposed to have been so impregnated with preventatives as to render their entrance impossible.

A simple and effective riddance is to heat stove lids or an iron shovelfor red hot, pour vinegar on the iron and let the fumes penetrate the cracks which could not have been reached by a powder gun.

Moths are particularly fond of new plaster and the setting of the walls of new houses affords them numberless hiding places, which cannot well be reached except by fumigation.

Burning sulphur is excellent for ridding walls of any sort of vermin, but the fumes of this are objectionable to many and do not pass off so quickly as those of vinegar.

Wisdom of a Baby

Neighbors rush in where father fears to tread.

Nothing succeeds like crying.

He that is down with measles need not fear spanking.

What can't be cured must be kissed.

Children should be cleaned, not hurt.

One bunch of candy makes the whole world kin.

A little baby goes a great way in a night.

Parental pride goeth before a squall.

Collie doth make cowards of them all.

They're never too old to learn.

Charity covers a multitude of sins (I got twelve pairs of booties when I landed).

IN THE SEWING ROOM

May Manton's Hints

TUCKED BLOUSE WITH POINTED YOKE,
CLOSED IN BACK 5083

The blouse that closes at the back is a favorite for the finer, daintier materials and unquestionably allows of greater variety of treatment than is possible for those that are closed at the front. This one is made of white lawn with trimming of Valenciennes lace insertion and is in every way attractive and desirable. The pointed yoke is a novel feature and the tucks are arranged in groups that alternately are full length and part length at the front, so giving a quite novel effect. The lawn and lace make a combination that are both fashionable and desirable, but there are countless others which might be suggested. Anything that is soft and fine enough to tuck is appropriate for the blouse itself, while the yoke and cuffs can be made from any banding that may be liked.

The waist consists of the front, the backs and the yoke which is cut in one piece and joined to them, while the neck is finished with a standing collar. The sleeves combine full puffs and pointed cuffs, the seams being concealed by the trimming.

BOX PLAIT SKIRT 5082

The skirt that clears the ground gains in favor week by week and month by month and is constantly appearing in new forms. Here is one of the very latest that is made to take graceful folds below the straps, which are applied over the plaits and seams for a portion of their length. The model is made of dark serge, simply stitched with belting silk, but it is one of those thoroughly useful ones that can be made available for almost every seasonable material. For



5084 Tucked Blouse, 6082 Box Plaited Skirt,
32 to 42 bust. 22 to 30 waist.

immediate wear, it is much to be desired in linen and other washable fabrics while it also suits silk and wool to a nicety.

The skirt is cut in nine gores, there being a box plait in each side and back gore and also backward turning plaits at each seam, which are formed by extensions below the straps. The trimming straps are of graduated lengths so providing the fashionable line that is longer from the waist to the front, shorter at the back.

BOY'S RUSSIAN BLOUSE 5083

There is no garment that suits the active young lad better than this one. It is absolutely loose and comfortable and allows him to climb and play to his heart's content while it is becoming, tasteful and satisfactory

to the looker-on. In the illustration the material is percale, but many others also are suitable, white being liked for those of afternoon while color is preferred for the blouse of harder usage. The pocket at the left of the front means both style and gratification to the young wearer and the sleeves are the new ones that are tucked at the wrists, but made with openings which render them easy to slip on and off and which are closed with buttons and buttonholes.

The blouse is made with fronts and back and is simplicity itself, being shaped by means of shoulder and under-arm seams. There is a narrow



5083 Boy's Russian
Blouse, 4 to 12 years

5080 Missie's "Peter
Thompson" Suit,
12 to 16 years.

standing collar at the neck and the closing is made well over to the left in conformity with the Russian style.

MISSIE'S SAILOR BLOUSE SUIT 5080

There is no costume that suits the active young girl better than this one made in the favorite "Peter Thompson" or regulation style. It is a marten effect, girlish, and very generally becoming while at the same time it allows perfect freedom and activity. In the illustration the dress is made of dark blue serge with the collar and shield of white and banding of black over white, but the model is a favorite one for linen and similar washable materials as well as for serge, flannel and the like, and it is correct in white as well as in color so that many variations can be made. White flannel and white piqué are peculiarly charming for the cool warm weather, and while they have the disadvantage of soiling readily, also can be cleansed easily and successfully.

The dress consists of the blouse and the skirt. The blouse is drawn on over the head, there being only a slight opening at the front, and is finished with a big sailor collar, beneath which the shield is attached. It can be faced to form the yoke or left plain as preferred. The sleeves are the favorite ones that are gathered at the shoulders and tucked at the wrists. The skirt is cut in seven gores and is laid in a plait at each seam, which is stitched for a portion of its length, pressed into position below.

The price of each of the above patterns postpaid is only 10 cents. Send orders to The Farming World, Morning Building, Toronto, giving the size wanted.

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do the locality where you live. Send us your address
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Nature About the Farm

By C. W. NASH

NIGHTHAWK—WHIP-POOR-WILL

The other day I was asked by a correspondent to explain the difference between a whip-poor-will and a nighthawk, my correspondent stating that in his part of the country people could not distinguish one from the other, and that many believed the two species to be identical. I am under the impression that this is the prevailing belief throughout the country, but it is a mistake, the two birds being quite distinct. Of course, as they are closely related, belonging in fact to the same family, they possess certain peculiarities of construction in common, and by reason thereof, there is a certain general resemblance in their mode of life. In this family of birds the mouth is highly specialized to enable them to capture their food when flying, the gape being enormously wide, while the beak proper is very small. The plumage of our species is peculiarly soft in texture, much marbled and mottled with black, brown, gray and yellowish white, the combination forming a splendid example of protective coloration. Their wings are long and powerful, well adapted for sustained flight. The legs and feet are very small and apparently feeble, yet they can run rapidly for a short distance on bare ground. On the middle toe is a curiously pectinated claw, the purpose of which has not yet been positively ascertained, though the Rev. Gilbert White, of Selbourne, writing of the English species, says: "I saw it distinctly more than once put out its short leg whi" on the wing, and by a bend of the *d* deliver something into the mouth. If it takes any part of its prey with its foot, as I have now the greatest reason to suppose it does, I no longer wonder at the use of its middle toe." The pectinated claw, however, may serve other purposes besides assisting in the capture of prey. Both our species usually rest upon the ground, though occasionally, and particularly after being disturbed, they will alight upon the branch of a tree. In such cases, as they sit close and lengthwise with the limb, they are apt to be mistaken for a knob or some excrescence of the bark and so readily overlooked. No nest is ever constructed by either species, the eggs, two in number, being deposited on the ground in the locality frequented by the birds. The coloration of the eggs so closely resembles that of their surroundings as to render it almost impossible to discover them, unless the sitting bird happens to be flushed.

NIGHTHAWK

The name of this species is rather misleading. It is not exclusively a bird of the night, for it is even very notably connected with the hawk tribe. On cloudy days, and even in bright weather, just before its departure at the end of summer, it may be seen flying an hour of the day. During the hottest part of our season, however, it generally rests inactive until about sunset, when it starts out on its aerial hunt for flying insects.

The plumage of the nighthawk above is curiously mottled with black, brown, gray and tawny, the black predominating; below from the breast to tail it is marked with blackish on a pale reddish gray, or nearly white ground; tail blackish, with pale cross-bars and a white spot on all the feathers towards the end, wings dusky, with a patch of white on the five

outer primaries. Throat of the male with a large patch of white. In the female the white of the tail is wanting and the white patch on the throat is replaced by tawny. When flying the white wing patch is very distinct and renders these birds easy of identification.

Its range in Canada extends from the Atlantic to the Pacific and there are records of its occurrence from as far north as lat. 62 deg. N. on the Yukon river. It is not a very early migrant, rarely reaching Southern Ontario before the fifteenth of May, or Southern Manitoba before the twentieth, nor does it stay late, the majority leaving early in September, though I have occasionally seen stragglers up to the twenty-fifth. When migrating, the nighthawk travels very rapidly, its average speed when going northward in the spring reaching thirty-four miles per day. This high rate is attained by birds of this class probably by reason of the fact that they are not compelled to arrest their progress in order to feed. On the return journey in the autumn they do not seem so hurried, but rather appear to loiter along, feeding as they go, though always well ahead of the first flocks. They spend the winter south of the United States and find their resting ground and summer haunts north of 37 deg. North latitude.

Soon after the birds have commenced their summer home the ceremonies of courtship and mating begin, and are carried on partly in the air and also upon the ground. Early in June, 1882, in Manitoba, I was fortunate enough to witness the proceeding of a pair of nighthawks both of which were so much absorbed in their own affairs that they paid no attention to my near approach. The spot selected for their meeting was at the end of some scrub evidently where an old campfire had been made. About this open space the male strutted, posturing most gracefully before his mistress, reminding one somewhat of the antics of a male, tame pigeon, when similarly engaged. After a time they both flew off, the male in close pursuit of his mate; in wide circles they mounted almost out of sight, uttering continually the peculiar shriek which is their usual note. Suddenly the male dashed downward thirty or forty feet, and as quickly turned and swerved up again. Just at the lowest point of the curve, he produced the strange, hollow booming sound, which is difficult to describe and not easily explainable. Some naturalists suppose it is caused by the action of the air upon the wing feathers, or in the open mouth of the bird and it is quite possible that this is correct, yet it should be remembered that the European goshawk, a closely related species, also utters a peculiar whirring sound when perched upon a branch and that this sound is undoubtedly produced by the bird's vocal organs. During the mating season and while the female is sitting, these aerial performances may be witnessed on any evening in the localities frequented by nighthawks, but after the young are hatched they gradually cease and the birds only make their presence known by their perpetual harsh scream. No nest is made, the two eggs, dull buff, much mottled with brown, black and lilac, being deposited on the bare ground or the turf in an old meadow. A very favorite place is a cultivated field, after it has been harrowed. (O) late years the birds have frequently

been found resorting to the flat gravel roofs in cities. When the eggs or young are approached the parents display great anxiety and will tumble about on the ground before the intruder, feigning lameness and using many devices to induce him to follow them and leave their treasures. It has frequently been said that when either eggs or young have been disturbed, the old birds will remove them from their original place to a place of safety. I have never seen any evidence of this, but have often seen newly hatched young ones run off when touched, or even closely approached; they will run quite rapidly for a few yards and then squat like little partridges, trusting no doubt to their protective coloration for concealment.

The food of the nighthawk consists entirely of insects, most of which are captured and devoured while the birds are on the wing. At times, however, they undoubtedly feed upon the ground for their stomachs have been found filled with crickets, grasshoppers and crawling insects of various kinds; these are probably taken at times at places where especially abundant, but they are not required to travel much in order to obtain them, for though the nighthawk can run rapidly for a short distance upon the ground, its short legs, weak feet and feeble bill would seem ill-adapted to the purposes of a bird which habitually fed upon these active inhabitants of the fields.

Of late years nighthawks have become much less abundant than they used to be, probably because they have been largely destroyed by an ignorant class of so-called "sports" who cannot resist shooting at a large bird whether its body is of any use to them when killed or not, and as the nighthawks only produce one brood of two young in each season, their extermination may be quite easily accomplished. The greater part of the mischief was formerly done in the United States, but as that country now has stringent laws for the protection of these and other valuable insectivorous birds, we may hope to see their numbers increase.

Soon after the middle of August they begin their migration towards the south when they may be seen moving in straggling flocks, feeding leisurely as they work their way to their winter home; occasionally one will swoop down and produce its booming notes, but as a rule only the eternal scream is heard as they pass over.

In our next issue I hope to give illustrations of both nighthawk and whip-poor-will, so as to show the distinguishing marks of both.

Fruit Prospects

The Fruit Division, Ottawa, has published its regular report on fruit prospects of date, June 27, 1903. Favorable conditions for fruits of all kinds continue on the whole most excellent. Early fruit suffered in some districts from late frosts. In apples every individual tree has a means to full crop in the Maritime Provinces except for early varieties, which do not promise more than a light crop. A medium to full crop is the prospect for most sections of Ontario. Pears and plums promise an excellent crop. Allowing for the winter killing of 1899 and 1903, the prospects for peaches are very promising. The indications are that cherries and plums will be an abundant crop in nearly every district. The late frosts injured the strawberry crop in some places.

In nearly every district more spraying has been done this year than ever before. The English apple crop, according to late advices, will be a short one.

B. C. Fruit Lands

The members of the British Columbia Fruit Growers' Association recently visited the fruit and prospective fruit areas in the interior of that province. While there are many sections where an abundance of good fruit of nearly all kinds is being produced, there are many districts splendidly adapted for fruit culture yet untouched. The possibilities of development in fruit growing in the Pacific province is therefore immense. Some of the points visited in the recent trip are Enderby, Vernon, Kelowna, Pentiction, Keremos, Fairview, Summerland, Pechland, Armstrong, and other places in the Okanagan country. The trip was an eye-opener to many who had seen these points for the first time.

Commuting Statute Labor a Success

The fourth annual convention of the Eastern Ontario Good Roads Association was held at Brockville on June 28th and 29th. There was a fairly large attendance. In the absence, owing to illness, of Mr. E. Cummings, of Ottawa, Mr. J. C. Bradley, warden of Carleton County, presided. Mr. Cummings' address, which was read by the secretary, showed that the association had

made rapid progress since its inception. When the association started not a township east of Kingston had commuted statute labor, and not a township or county council was constructing cement culverts or even knew how to construct them. Now fully one hundred municipalities are using concrete culverts exclusively. Today over half the townships in Carleton county have commuted statute labor and are delighted with the plan. Mr. D. Bonis, of St. Mary's, Ont., in dealing with the commutation system, condemned it as it discriminates between large and small holdings. For instance, a man who is assessed for \$1,200 does three days statute labor, while a neighbor on an adjoining lot for say \$1,205 is liable to four days, the line fixing the number of days, being drawn at the former amount, and an increase of \$5 entailing an additional day's work. So inconsistent and unfair is the working out of the statute labor system that it is generally conceded by those giving the matter consideration, that the only equitable adjustment is to be found in its complete abolition, root and branch, commutation on the basis of statute labor days work carries with it all the injustice of the old system. Mr. Bonis contended that all the disbursements for roads should be taken from a general fund set apart for the local improvements, an equal rate being levied and collected on the basis of assessment.

Mr. A. W. Campbell, Commis-

sioner of public works for Ontario, in an address, referred to the statute labor system as follows:

Commutation has already shown that it accomplishes better results than statute labor. In the latter there is a kind of double taxation in labor and cash. Commutation at even 50 cents a day will on the average accomplish more than can be done by statute labor. Statute labor on account of its inefficient placing of the burden equally upon the ratepayers has in many cases placed a premium upon idleness and indifference. With the amount of money expended on statute labor during the last ten years in many of the counties, the whole of the roads in those counties might be macadamized throughout. He contended that road building should be let by tender and carried on in a businesslike manner. He said that a system capable of finishing the work commenced by statute labor must and can be evolved that will result in the statute labor law being entirely obliterated.

Mr. James H. Macdonald, Highway Commissioner for Connecticut, and several others addressed the convention.

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The Farm Cream Separator.

The Cream Separator for farm use is here to stay. It has proven its utility, and we want to impress upon those of our readers with milch cows the absolute necessity of making use of its undisputed advantages. In many cases it will be more profitable to sell one of your cows to pay for a separator rather than do without one. For we know of instances where farmers with five to ten cows have found that the cream separator actually added to the profits as much as another cow would, and remember that this profit kept right along with the use of the separator. You would have to pay for the keep of the extra cow, but the separator makes the profit and "keeps" itself.

Some farmers prefer to sell their cream to the creamery, others to churn it at home. Dairymen with a select butter or cream trade, have learned that they can only obtain and hold the extra price they receive by producing a high grade article possibly only by using a separator.

Moreover, a separator keeps the valuable skim milk right at home in its best condition, ready to feed to the young stock when warm and fresh. Many farmers are now losing the profit from this by-product of

their herd, and may be contracting a whole lot of trouble in the cold sour lot of mixed skim milk brought home from the creamery. We certainly advise our readers to purchase a cream separator.

In looking at a separator, pay careful attention to the construction of its operating parts. A cheap separator, like other cheap apparatus, gives cheap service. A well-made machine will wear for years, soon saving its cost over the old skimming methods by the increase it makes in your product, and the profit continues after the machine has already paid for itself. Be sure the separator you buy is a clean skimmer. It is prudent to consider the reliability of the makers back of the machine. The Vermont Farm Machine Co., Bellows Falls, Vt., manufacturers of the famous United States Cream Separators, that hold the world's record for closest skimming, have applied to the separator problem a successful manufacturing experience of over thirty years. Any of our readers may obtain from them a handsome little book, entitled "The Dairy," which contains highly profitable information for every farmer milking cows. Drop them a post card for one.

QUESTIONS AND ANSWERS

Lame in Hind Leg

Horse in good condition, eating and feeling well, is suddenly taken lame in hind leg. He will raise the foot from the ground and seem to be in great pain for an hour or two and then go off all right, but when put to work soon goes lame again. When first taken will sweat profusely but dries off as pain ceases. No swelling visible.—C.A.F.

A disease of the large blood vessels of the leg at the part where they connect with the main trunk of the body will produce the symptoms noted. A prolonged rest will be the best treatment for him, so you might as well turn him out on the grass for a month or two.

Worms and Bots

Please publish remedies for worms and bots in horses.—Subscriber, Ontario.

Worms in horses may be got rid of by first starving the horse well for twenty-four hours, during which he should get only water. Then give two drachms santonin, two ounces turpentine, and one pint linseed oil. This is for an average sized horse of say 1,400 lbs. weight. Vary the dose to suit lighter or heavier ones. As for bots, they are very difficult to dislodge unless near the time for their annual migration in June, when they naturally leave the horse to go through their metamorphosis into a winged fly. At this time they can be removed by a simple purgative, while at other seasons it requires a violent or heavy one. As for dislodge them, Carbon bisulphide is used for this purpose, but should be administered by a skilled practitioner.

Injury to Shoulder

While driving about a month ago, mare stubbed her toe and was unable to move for several hours. She will get partially over her lameness and

then get bad again. She has slight swelling about top of shoulder blade. Please give remedy for colt that scours.—E. F. C., Nova Scotia.

1. You had better blister her over the swollen part and give her a good long rest. 2. The colt that scours should get the following: Bismuth subgallate twenty grains, Salol, ten grains. Repeat every four hours until scouring ceases.

Gives No Milk

Young cow, calved a week ago, second calf, in good condition, and is fed plenty hay with bran and fed twice a day, but does not give any milk. What is the cause and is there anything to do for it?—Subscriber, Ont.

A case of this kind should be taken hold of at once or there is not much chance of getting any flow of milk. Let the calf suck the cow, feed her plenty of bran mash, and if possible fresh grass, and give a tablespoonful of ground aniseed in each feed.

Heaves

I have a horse that for the past three or four days has had both its flanks going like a bellows. It eats and drinks well, but it appears languid, and hair is coming off its coat. I believe it has heaves. What is the cause? Should I still feed it on hay and oats as usual and let it have all the water it wants?—E. A. L.

You are very likely mistaken about your horse having heaves, as the symptoms point to an affection of the lungs known as hydrothorax or "water in the chest." This is the result of pleurisy, and is, in all likelihood, caused by taking cold. You should blister the sides of the chest with mustard, and give the following: Filix ext. digested in two ounces, pot. iodide four ounces, water sufficient to make a sixteen ounce mixture. Give a tablespoonful three times a day. In some cases, it is necessary to perform an operation called "tapping" in order to remove the fluid from the chest.

ABOUT RURAL LAW

In this column will be answered for any paid-up subscriber, free of charge, questions of law. Make your questions brief and to the point. This column is in charge of a competent lawyer, who will, from time to time, publish herein notes on current legal matters of interest to our readers. Address your communications to "Legal Column," *The Farming World*, Toronto.

Wants to Revoke Order

A gave an order to B in 1903 for a monument from design, the monument to be erected on May 1st, 1904, and the first payment made on May 1st, 1904. A, having seen the same design in another cemetery and not liking it, decided to make a change. B was willing to have this done. A got the opinion of a competent man as to setting of the monument and was told that it would be difficult to make a good job of this as the lot was too small. A then cancelled the order to B, but B, with the promise that he would give B the first chance of another monument as soon as a new lot could be procured.

B has now delivered the monument—nearby two months after. Does your friend in the original order for the first payment to be made, Can B

collect for the price of same?—J. R. T., Iront Co., Ont.

By the 17th section of the statute, commonly known as the Statute of Frauds, it is enacted that "No contract for the sale of any goods, wares or merchandise for the price of forty dollars or upwards shall be allowed to be good except the buyer shall accept part of the goods as so sold and actually receive the same or give something in earnest to bind the bargain, or in part of payment, or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by such contract or their agents thereunto lawfully authorized."

By section 4 of the same statute it is enacted that no action shall be brought whereby to charge any person upon any agreement that is not to be performed within the space of one year from the making thereof unless the agreement upon which such action shall be brought or some memorandum or note thereof shall be in writing and signed by the party to be charged therewith or some person thereunto by him lawfully authorized.

From the information given us it is impossible to give you a definite answer, but you can possibly apply the above quotations to the circumstances of your own case. You do not mention at what date in 1903 the order was given, nor whether B agreed to the cancellation of the order by A in the fall of 1904. If B did agree to the cancellation of the order he cannot of course afterwards go on and fill it and collect for so doing. You also mention that B has now delivered the monument but you do not say whether A accepted or refused the delivery of the same. If A agreed to accept it and did accept the delivery by B he can collect from A the price of the monument since there would be a new contract between them.

Damages for Lunatic's Act

A, who is supposed to be of unsound mind, set fire to B's barn and the barn was burnt down. Can B recover damages from A?—H. E. M., Ontario.

A lunatic is civilly liable in damages to persons injured by his acts unless utterly blameless. If A was not utterly unconscious that he was doing wrong he is liable for the damage done.

Price of Horse

B sold a horse to C for \$150. B did not know C, but inquired from A who said C was all right and would pay for the horse. C has not paid B and B is unable to recover the price of the horse from him. Can B get the price of the horse from A?—J. E. L., Ontario.

No. In order to make a person responsible for the debt of another under such circumstances as the above, the representation or assurance must be in writing and signed by the party to be charged therewith.

It is enacted in R.S.O., 1897, chapter 146, section 7, as follows:—"No action shall be brought whereby to charge any person upon or by reason of any representation or assurance made or given or relating to the character, conduct, credit, ability, trade or dealings of any other person, to the intent or purpose that such other person may obtain money, goods or credit thereupon unless the representation or assurance is made in writing, signed by the party to be charged therewith."

The U.S. Apple Crops

The NEW YORK PACKER, in a recent issue, gave some information regarding the outlook for apples in the United States that will be of interest to Canadian fruit growers. This information has been obtained from growers, shippers and nurserymen in all parts of the country.

New York is the pivotal state whose crop usually sets a basis for prices. Consequently, the information from all sources, a two-thirds crop from all varieties except Baldwins, and a one-third crop of baldwins, is expected. The New England crop, taken as a whole, is put considerably below the average. West Virginia and Virginia are credited with 60 to 75 per cent. of a full crop. Pennsylvania will have a fair yield of apples, but nothing like the crops of 1904. Michigan on the other hand is put down for one of the greatest that state has ever had. In the middle states the outlook is not so bright, but by no means discouraging. Indiana will have a fair yield; Illinois better than last year;

Ohio a fair crop and Kentucky about the same as in 1904. Missouri and Kansas are put down for a fair crop, and Nebraska, Iowa and Colorado for a fine crop. On the coast the crop is placed at an average. The outlook for the Territories is rather gloomy, and they are eliminated from the PACKER'S estimate.

Entries Close August 1st

Entries for the great Canadian National Exhibition, to be held in Toronto, August 26th to Sept. 11th, close for live stock, dairy products, fine arts, natural history, women's and children's work on Monday, August 27th; for grain, field roots, garden vegetables, floricultural, horticultural, and honey on Monday, August 28th; for poultry and pet stock and dogs, for which a special prize list has been prepared, on Saturday, August 29th, with Manager Orr at the City Hall offices, Toronto, by addressing whom, entry blanks, prize lists, and any information can be obtained.

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FINANCIAL NEWS AND NOTES

Some Comparisons

The simplicity and convenience of matters financial in Canada, as compared with those of other nations, as we believe, not appreciated as it should be, and there is ample ground for a feeling of thanksgiving that we are free from many of the complications in these matters that rest on the people of other lands.

Take, for instance, our currency. At present it consists of silver and copper coin (five pieces only), Dominion notes and bank notes, to which will be shortly added gold coin of three denominations. A simple list truly, and one that causes no trouble, either financial or political. Compare this with the currency of the United States, where to the ten pieces of coin issued (which includes the "smaller") must be added gold certificates, silver certificates, United States notes, Treasury notes and National Bank notes, or compare it with the currency of Great Britain, with its antiquated system of pounds, shillings and pence, and besides the usual number of coins, notes in circulation of the Bank of England and English joint stock banks and English private banks and Scotch and Irish banks.

Another cause for gratitude is our freedom from a stamp tax with all its annoyance and expense, as, for instance, in Great Britain, where every cheque, draft, note, receipt, power of attorney, stock transfer and must be stamped in a certain manner and to the extent prescribed by the British Stamp Act. Some of us have a recollection of the time when such an Act was in operation in Canada, and also remember the feeling of relief when it was repealed.

Our banking system, too, is simple, consisting of but one class of banks acting under a uniform Bank Act, which applies to all our banks, thirty-four only in number, but with twelve hundred branches. In the United States there are State banks and National banks, and each State has different regulations for its banks, and that country has many thousands of banks independent of each other, and impossible to be kept in mind, as can our few large banks.

Attention was recently called by a gentleman from the United States to the ease with which banking accommodation can be obtained at a show point in Canada, as compared with the procedure necessary to this end in the United States. In Canada when the people of a village or town decide that a bank in their midst is necessary, and that there is sufficient business to warrant the opening of such, a requisition is sent to the head office of one of the chartered banks stating the request, and the favorable amount of business obtainable. If the bank authorities are shown that there is sufficient business in sight to warrant it, a branch office is opened there without delay, and at no further trouble to the townspeople. Moreover, that branch has all of the strength and experience and facilities behind it of the parent institution with its millions of assets. In the United States those under similar circumstances desirous of a bank must proceed to organize one, get a Federal or State charter, obtain sufficient subscriptions to the stock, arrange for directors, cashier and other officers. Premises, office forms

and supplies, and many other matters must be arranged for, all of which takes much time and trouble, and at the end what? A bank of possibly \$20,000 capital (or less), with little or no backing outside of its own slim resources, and with probably inexperienced men at the helm. Is it a wonder that bank failures are so frequent in the United States, or that our own system is so highly commended?

Bank Reports

A number of our Canadian banks have during the past two months been publishing their annual statements, and as these reflect largely the financial condition of the country, it is of interest to read what these statements contain, and besides, as a large number of our people have money deposited in one or other of these banks, it may be well to reassure ourselves of the safety of that money by noting the position of these depositories, even in these days when almost unlimited confidence is felt, and rightly so, in our chartered banks. Our system of banking trains good men for the management of these great institutions. The officers enter the service as boys, and through the practice of transferring them from branch to branch and from one class of work to another, by the time the years of ripened judgment are reached an intimate knowledge of the bank's business, and of the theory and practice of banking has been gained, and thus these men are well equipped for their responsible business of handling the people's money.

The history of our Canadian banks during the past twenty-five years shows that the confidence reposed in them rests on a good foundation. The Imperial Bank in their report of 31st May, showed total assets of \$3,309,525, against liabilities owing the public of \$2,703,777, and a paid-up capital and rest, which each amount to \$2,000,000. The deposits aggregate \$2,076,068. The year's profits were \$10,951 (an increase of \$6,537 over the previous year), and from these profits dividends of ten per cent were paid the stockholders and \$15,000 added to reserve, leaving \$176,516 to be carried in profit and loss account.

The Traders Bank also shows a good statement, with total assets \$22,330,016, against liabilities owing the public of \$18,091,380. The capital is \$2,996,715, and reserve fund, \$1,100,000. The deposits aggregate \$1,829,720. The profits of the year were \$27,144 (an increase of \$8,722 over last year), in which is added premium on new stock, \$100,000, and profit and loss account, \$22,978. Dividends of seven per cent were paid, and \$400,000 added to reserve.

The Standard Bank has not made such rapid progress as the above two institutions. Its assets aggregate \$16,652,801, with amount owing the public, \$14,500,686. Capital and reserve, \$1,000,000 each. Deposits, \$12,592,099. Profits for the year, \$135,995 (a decrease of \$26,012 from 1904, owing, it is said, to somewhat heavy losses). Dividends of ten per cent were paid the shareholders, and \$62,114 carried forward.

The Sovereign Bank at its third annual meeting reported capital \$1,300,000 and reserve \$400,000. Total assets \$11,666,995, against liabilities to the public \$9,427,270, including deposits of \$8,316,204. The profits of the year were \$133,975, and dividends of five per cent were paid the shareholders, \$20,000 was added to reserve. All of which contributes to make a very good showing for such a young institution.

THE SAVINGS OF YEARS

should never be risked in uncertain investments. Much better to be satisfied with the steady and reasonable interest, than to risk loss of the principal through the unwise depositary or any get-rich-quick scheme.

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THE BANK OF TORONTO

CAPITAL	\$3,400,000
REST	3,700,000
ASSETS	30,000,000

Pacific Coast Excursions

During June, July, August and September the Chicago and Northwestern Ry. will sell from Chicago round trip excursion tickets to San Francisco, Los Angeles, Portland, Ore., (Lewis & Clarke Expedition, Seattle, Victoria and Vancouver, at very low rates. Correspondingly cheap fares from all points in Canada. Choice of routes, best of train service, favorable stopovers and liberal return limits. Rates, folders and full information can be obtained from B. H. Bennett, General Agent, a East King St., Toronto, Ont.

The Ontario Bank reports assets of \$15,742,673, against \$13,348,589 owing the public, including deposits of \$11,649,325. Their capital is \$1,500,000, with reserve, \$650,000. Profits for the year were \$152,583 (a decrease from 1904 of \$23,072), from which dividends of six per cent were paid, and \$50,000 added to rest.

The following three Quebec banks also publish their statements at this time:

The Union Bank of Canada, with capital, \$2,500,000 and reserve, \$1,100,000, shows assets of \$22,767,100, against \$18,889,995 owing the public, which includes deposits of \$16,533,876. Their profits are \$38,173 (a decrease of \$59,527 from 1904). Dividends of seven per cent were paid, \$100,000 added to rest, and \$100,000 written off bank premises and real estate, leaving \$745,131 to be carried forward.

The Quebec Bank shows assets of \$13,793,032, against \$9,874,435 owing the public. The deposits are \$8,298,780, capital, \$2,500,000, and rest, \$1,050,000. Profits for the year aggregated \$261,474 (a decrease of \$21,527 from 1904), from which dividends of seven per cent were paid and \$50,000 added to reserve.

La Banque Nationale's capital is \$1,500,000 and reserve fund, \$500,000. Total assets \$10,515,744. Against \$8,437,577 owing to the public. Deposits are \$6,753,100. Their profits were \$104,684 (a decrease of \$12,093 from 1904), from which dividends of six per cent were paid and \$50,000 added to rest.

In the Poultry Yard

Chicken Cholera

The disease of chicken cholera, among poultrymen, is looked upon with as much terror and abhorrence as smallpox or cholera among the laity. And indeed they may, for it produces almost as much destruction among fowls as occasional epidemics of cholera or smallpox among men. There is no other disease that produces such ravages among pigeons, turkeys, chickens, ducks and geese, as cholera, or greater financial loss. Poultrymen were seeking everywhere for a preventive or cure, but until a comparatively recent date, nothing definite was known of its cause or prevention. Science, however, has discovered the causative agent and made known rational means for its prevention. While it is somewhat complicated as yet in its application, we hail with delight its discovery and live in hopeful anticipation of a greatly improved method.

The bacilli which is responsible for the disease was first discovered in the year 1878. It was at first thought that they belonged to a class known as cocci, or sphere, from their resemblance to small berries, but later investigation proved them to belong to a class of germs known as bacilli. They are short, broad bacilli with rounded ends, sometimes united to each other, forming moderately long chains.

When examined in the living condition they are found to be non-motile. They are cultured usually upon gelatin plates. They are, however, grown upon potato, agar-agar and blood serum. The introduction of cultures into the tissues of chickens, geese, pigeons and sparrows, is sufficient to produce fatal septicaemia, or blood poisoning. Feeding them with material infected with bacilli is also sufficient to produce the disease with pronounced intestinal lesions.

The autopsy shows that when the bacilli are introduced beneath the skin, a true septicaemia or blood poisoning, as it is termed by the laity, results. The liver and spleen are enlarged; circumscribed hemorrhagic (blood spots) and infiltrated areas occur in the lungs; the intestines show an intense inflammation with red and swollen mucous membrane, and occasional ulcers following hemorrhagic or blood spots. The bacilli are found in the organs. If, on the other hand, the disease has been produced by feeding, the bacilli are chiefly to be found in the intestines.

After having introduced the bacilli purposely beneath the skin of the fowl, or introduced into the intestines by feeding, a condition of weakness and apathy arises which causes them to remain quiet, seemingly almost paralyzed, with ruffled up feathers. The eyes are closed shortly after the illness begins, and the birds gradually fall into a stupor from which they do not awaken. The disease leads to a fatal termination in twenty-four to forty-eight hours. During its course there is a profuse diarrhoea, the frequent fluid, slimy, grayish white discharges containing numerous bacilli.

The bacilli of chicken cholera is one whose peculiarities can be made use of for protective vaccination. When cultures are allowed to remain undisturbed for several months, their virulence is greatly lessened, and new cultures planted from these are also attenuated. When chickens are inoculated with such cultures, no inflammatory occurs other than a local inflammatory reaction, by which the

birds are protected against virulent bacilli.

From these observations a system of protective vaccination has been worked out, in which fowls can be protected by first inoculating them with a very weak, then stronger, and finally with highly virulent cultures, with resulting protection and immunity. The unfortunate feature, however, is that it is somewhat complicated for general use.—Henry Wolf.

Helps to Beginners

Experience is a good teacher and one that makes a lasting impression upon the learner.

Farmer B—— had read in his county paper that there would be a farmers' institute at the cross-roads and at the request of his wife, he tended the mill, though he had no faith in them. The afternoon session was given to the interest of poultry culture and the gentleman who had charge of the meeting was a regular poultry crank. In the course of the meeting the question of "thoroughbred poultry" came up for discussion and then a round table meeting was in order, and the poultryman asked and answered questions in a way that made halters throw away their crutches and sign right before the president for a poultry paper.

"It was remarkable the way the ole farmers were took in" that day and among them was Farmer B——.

He always thought the dung-hill fowls were good enough for him till he heard one of them big fellows make them out the poorest scrubs and animals under heaven, and even aimed that a man who was guilty of breeding such monstrosities should be tattooed or something like it.

Our good friend came home all in a glee. The entire evening was spent in reading the poultry papers gotten at the institute. The second evening was spent in reading every advertisement in the papers and the third evening topped the climax by a gentleman in Ohio receiving an order for a ten-dollar rooster, as the farmer wrote it in his letter: "I want a good fellow, remember. A full bred-blooded Barred Rock rooster and one that will weigh twelve pounds or more."

In due time the bird came. He did not weigh twelve pounds nor ten pounds. He was but a cockerel rather gangling, but he had the bones and the making of a fine bird.

He was the talk of the community. All in all the farmer liked him and so he wrote to the Ohio breeder. Time went by and a big white feather put in its appearance in the tail. It did not scare the farmer, as he thought that was the nature of the creature. Soon the majority of the tail feathers were white, and then came some on the neck, but the innocent farmer did not think there was anything wrong, and time went by. One day he caught the fellow to lift him and he felt some fuzz on his legs and soon he had feet on him something like a Clydesdale horse. Every week the feathers grew longer, and every month the bird got bigger, and he was the biggest fellow in the country, but he did not look like a Barred Rock rooster. Till the 1st of October he was something in looks like Jacob's ring-streaked and striped cattle.

Some people called the farmer a fool and told him he was cheated, and that he ought to write that breeder a sassy letter and demand the return of his money, but do you

know, dear reader, when that farmer was brought to task about it by his good, indulgent wife, he said: "Mandy, fur the life of me, I can't tell whether I ordered a Rock rooster or a Dark Brahma, but I feel sartin I got just what I ordered!"

WM. HARRIS GUYER,
Inland Poultry Journal.

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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 variations in nomenclature 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.

The Royal Show

The great English Royal Show, held at Park Royal the end of June, was the best of the three held at that point. Whether it will prove better financially than the other two remains to be seen. The old country exchanges just to hand give pretty full reports of the show.

The best section of the show, not only in cattle but of the whole exhibition, was the Shorthorns. The numbers were so large that two rings had to be set apart for the judging. All the classes were strong, especially the younger ones. Mr. Robert Taylor, Pitliver, had the 1st prize aged bull in his Edinburgh champion Royal Emden (82154) a great massive, well fleshed, dark roan. He afterwards won the championship for the best bull of any age. Mr. Marshall's Roan Conqueror being reserve. For the best female, Mr. F. Miller's 2-year-old heifer, Lady Amy VII, stood first; the King's first prize yearling heifer, Reception, first reserve, and Mr. Dean Willis' White Heather second reserve.

There was a fair exhibit of Aberdeen-Angus but on the whole inferior to that of the Shorthorns. The gold medal for the best animal of the breed went to Mr. Hudson's Danesfield Jester (18949), a bull with a beautiful head and strong bred character. The Galloways were disappointingly few in numbers. The quality, however, was good. The Ayrshires made a capital display, the best made at the Royal for years.

The show of horses was good, and in particular the Shires among heavy horses and the driving classes among the light horses. The Clydesdale Horse Society's champions went to Baron Fyvie; a two-year-old winner at several of the spring shows and champion at Ayr. The best female was Lady Garnet, an outstanding brood mare winner. The championship Hackney was found in Evanthius (8463), by Polonus, a horse of the good level sort. He was hard pressed by Brounch Danegelt, one from Sir Walter Gilbey's stud.

In sheep the Scots breeds were very much at a discount. The Shropshires were as usual, perhaps the largest exhibit in the sheep section. The Lincolns made a rather sensational show, and with plenty of Argentine buyers in the field, were eagerly sought for.

All the pig breeds were represented. The large Yorkshires and the Berkshires were the most numerous and put up excellent exhibits.

Assistant Live Stock Commissioner

In the appointment of Mr. J. B. Spencer, B.S.A., as Assistant Live Stock Commissioner, the Government

seems to have selected wisely and well. Mr. Spencer comes from one of Canada's oldest families of stock breeders. His grandfather, Mr. John Spencer, imported into Canada the finest Devon cattle and Shropshire sheep, and he was the second man to import Southdown sheep, which was in the early fifties. His father, Mr. H. H. Spencer, of Dorset Farm, Brooklin, Ont., was for many years the leading breeder and exhibitor of Southdown sheep and Devon cattle in Canada. Later he took up the breeding of Shropshire and Dorset sheep, Shorthorn cattle, Clydesdale horses and Berkshire swine. With the subject of our sketch as his right-hand boy, he imported and exhibited Shropshires quite extensively in the early eighties.

Both by experience and association Mr. Spencer has had a good ground-work in live stock breeding. His home during the years of his boyhood and early manhood was situ-



J. B. Spencer, B.S.A.

ated in the midst of such noted breeders as the Drydens, Davidson's, Millers, Grahams, Beiths, Johnstons and other prominent stockmen, whose methods of breeding and feeding were observed and followed very closely during a series of years while managing his father's farm.

When twenty-four years of age Mr. Spencer entered the Ontario Agricultural College, completing the full course and securing the degree of B.S.A. Upon leaving the college he took up agricultural journalism, which he has followed ever since. His new duties at Ottawa began on July 15th.

Importing Shorthorns

Mr. H. J. Davis, Woodstock, Ont., landed at Quebec on July 5th, sixteen high-class Scotch Shorthorns. The importation consists of seven young cows and heifers and nine young bulls. These cattle have been carefully selected by Mr. Davis himself, and come from such well-known and famous families as the Roan Lady, Gilt, Mayflower, Kilbean Beauty, and Butterby. The mere mention of these

names is a guarantee that Mr. Davis' importation is of excellent breeding.

The importation will be out of quarantine and home at Woodstock on August 26th, when intending purchasers would do well to look them over before buying elsewhere.

Japs Want More Cattle

Mr. A. P. Westervelt, Secretary of the Ontario Live Stock Association, has received a letter from J. Nishimura, the representative at Vancouver, B.C., of a Japanese firm, saying that on behalf of parties who will arrive from Japan in a week or two, he intends purchasing pure-bred Shorthorn, Ayrshire, Devonshire and Summenthal (Swiss breed) cattle. He asks for particulars of prices and other information of such cattle in Ontario.

Mr. Flatt's Sale of Fillies, August 23rd

Messrs. Montgomery Bros. have cabled W. A. Flatt that owing to the scarcity of Clydesdale fillies in Scotland they are difficult to purchase, and that it will be impossible for them to ship in time to hold the sale at Hamilton on August 9th, as previously announced. Mr. Flatt has, therefore, arranged to hold the sale at the Pavilion, Hamilton stock yards, on August 23rd, instead of August 9th.

Mr. Flatt also desires us to say that he will not undertake to purchase or import another lot of fillies this year.

The Guelph Winter Fair

It has been decided that the next Provincial Winter Fair shall be held at Guelph, Ont., December 4-8. These dates are the same following the International at Chicago, so that exhibitors may be enabled to show their animals at both exhibitions.

The total value of cash prizes to be offered amounts to nine thousand dollars (\$9,000.00). This means that large increases have been made this year to the prize money of several departments. The prize list will be ready for distribution shortly, and any person wishing a copy may obtain it by sending its name and address to A. P. Westervelt, secretary Parliament Buildings, Toronto.

Open-air Horse Parade

The third annual open-air horse parade held in Toronto on July 1st, was a pronounced success in every way. Although the weather was threatening there was a large attendance of the general public. There were over 400 entries and over 600 horses in the parade, and the procession, which was about two miles in length, took an hour to pass a given point. Every kind of rig, from the four-in-hand down to the tradesman's cart, was represented in the procession. The show of horses was very fine all through, some splendid animals being entered in the different events. One of the very best classes was that for heavy horses. The teams were well matched and looked in the pink of condition. A feature of this section was the three-horse team of greys exhibited by Joseph Russell.

The ponies formed a most interesting class of pretty and well kept

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animals, which proved a strong attraction to the juvenile onlookers. No pains had been spared by the drivers in all classes to make the animals in their charge look as smart as possible. In every class, gold, silver and bronze medals and four handsome rosettes were awarded, and so great was the number of entries the two classes had to be divided, sets of medals being given to each.

There was a regular army of judges and the ribbon men placed in short order, there being one judge for each class. The judging was timed to begin at 9 a.m. and by 10 a.m. the parade had started on its tour of the main thoroughfares of the city, so quickly were the ribbons placed and the decisions given. With a few exceptions the entries came from the people of Toronto, who, since its inception, have evinced a keen interest in the show.

Among those who officiated as judges were Robert and Wm. Graham, Claremont; J. Gardhouse, Weston; W. A. Lawrence, Milton; Alex. Doherty, Ellesmere; John Gardhouse, Highfield; J. J. Quinn, Brantford; W. J. Stark, W. Staley Spark, A. W. Smith and Henry Wade.

Edmonton's Annual Fair

The annual exhibition of the Edmonton and District Agricultural Association was held on June 20th and 30th and July 1st. Twenty-five thousand people entered the gates during the three days, the receipts were larger than ever before and the character of the industrial and live stock showed a decided or flattering advance over previous years. Owing to the early date some classes of grains and farm products were not out in the abundance that they would be in a fall exhibition, but samples were generally of high excellence. Grasses in great profusion and variety were a prominent feature. Several sheafs of fall wheat, which is now succeeding well in the country, were exhibited. The grain was already well headed out and was over four feet in length. It was the Turkey Red variety.

Dairy products were an excellent display as were also the several departments of finer work by the ladies. The rapid increase in the interior display will necessitate the erection of a larger building for future fairs.

In live stock the cattle classes were best filled and of these the useful Shorthorn were but a great number and excellence. Herds from other parts of the Territories competed, but the honors were shared with local farmers. The herd prize went to J. Wilson with P. Talbot & Sons and A. F. McGill following close. J. Wilson had the honor of capturing the sweepstakes bull prize with a twenty-one months old Lincolnshire red of fine stamina and conformation. The sweepstakes for female all breeds was carried off by a local breeder, J. Tough, with a two-year-old Hereford of fine quality. Herefords were a fine exhibit but competition was light. Jerseys were well represented and a few Galloways were shown.

The general purpose classes in horses were well filled and indicate that the farmers of the district are raising a good class of farm and light draught animals. Registered draughts were limited to the entire classes. In the aged stallion class seven animals were out, premier honors going to M. Morrison, of Wrentham. Roadsters were a fair class, carriage horses were scarce, but the saddle classes were quite strong. Dr. Ferris exhibited a fine type of cavalry horse that was highly esteemed by

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the judge, Dr. Standish. Hackneys were not shown. The gentlemen of the local polo club had out a fine class of ponies of creditable conformation and performance.

In the swine classes, Tamworths, Yorkshires and Berkshires were exhibited and competition was quite keen. A nice exhibit of both purebred and grade bacon hogs attracted some attention.

Sheep were not a large exhibit and were not very creditable with the exception of a few pure-bred Shrop. bucks of good quality.

The awards in cattle, sheep and swine were made by W. W. Fraser, of Emerson, Man.

To Judge at Fall Fairs

Supt. Cowan has issued a partial list of the fairs at which expert judges will make the awards. The dates and lists of judges are as follows:

CIRCUIT NO. 3

Horses, Geo. Gray, Newcastle; beef cattle and sheep, Geo. Whitelaw, Guelph; dairy cattle and swine, John G. Clark, Ottawa, Sept. 26 to Oct. 12; dairy cattle and swine, M. Stonehouse, Sept. 20-22.

Stirling, Sept. 20; Frankford, Sept. 22; Cobourg, Sept. 20; Pieton, Sept. 27; Marmora, Sept. 28; Campbellford, Sept. 29; Colborne, Oct. 3; Bancroft, Oct. 4; Warkworth, Oct. 6; Horwood, Oct. 11; Fenelon Falls, Oct. 12, two judges.

Horses, G. H. Williams, Napanee; heavy horses, beef cattle and sheep, W. J. Gardhouse, Highfield; dairy cattle and swine, R. H. Williams, Guelph.

Shelburne, Sept. 27; Orangeville, Sept. 29; Cookstown, Oct. 4; Fever-sham, Oct. 6; Beeton, Oct. 11; Dundalk, Oct. 13.

CIRCUIT NO. 8

Horses, R. D. Dundas, Springville; beef cattle and swine, G. B. Hood, Guelph; dairy cattle and sheep, John Jackson, Abingdon.

Durham, Sept. 21; Neustadt, Sept. 22, two judges; Teeswater, Sept. 23; Mildmay, Sept. 26; Palmerston, Sept. 27; Warton, Sept. 28; Meaford, Sept. 29; Tara, Oct. 4; Arthur, Oct. 5;

Priceville, Oct. 6; Lion's Head, Oct. 10; Kemble, Oct. 11.

CIRCUIT NO. 9

Horses, T. R. Reed, Lion's Head; beef cattle and sheep, W. R. Elliott, Guelph; dairy cattle and swine, R. S. Stevenson, Ancaster.

Listowel, Sept. 27; Flesherton, Sept. 28; Harrison, Sept. 29; Atwood, Oct. 4; Lucknow, Oct. 5; Brussels, Oct. 6; Gorrie, Oct. 7; Underwood, Oct. 10.

CIRCUIT NO. 12

Horses, Dr. Standish, Walkerton; beef cattle and sheep, Wm. White-law, Guelph; dairy cattle and swine, Wm. Jones, Zenda.

Strathroy, Sept. 19th; Staffordville, Sept. 20; Woodstock, Sept. 21, horse judge on 22nd also; Ancaster, Sept. 27; Burlington, Sept. 28; Paris, Sept. 29; Onondaga, Oct. 3; Burford, Oct. 4; Otterville, Oct. 7; Jarvis, Oct. 11; Caledonia, Oct. 12, horse judge on 13th; Langton, Oct. 14.

CIRCUIT NO. 13

Horses, Wm. Bishop, New Hamburg; beef cattle and sheep, Garnet Thompson, Blenheim; dairy cattle and swine, C. N. Culver, Simcoe. Netherby, Oct. 3rd, two judges; Beamsville, Oct. 4th; Fort Erie, Oct. 5; Fenwick, Oct. 6—Mr. Adolphus Pettit for light horses.

FAIRS NOT INCLUDED IN CIRCUITS

Horses, R. S. Brownlee, St. Catharines; beef cattle and sheep, A. S. Gardhouse, Highfield; dairy cattle and swine, M. Stonehouse, Port Perry.

Barrie, Sept. 26; Midland, Sept. 29; Elmvale, Oct. 4.

Horses, Wm. Doherty, Agincourt; beef cattle and sheep, Wm. Elliott, Guelph; dairy cattle and swine, R. H. Williams, Guelph. Bradford, October 18th.

Horses, Wm. Doherty, Agincourt; beef cattle and sheep, Arthur Johnson, Greenwood; dairy cattle and swine, R. Honey, Brickley. Woodville, Sept. 15th.

Horses, A. G. Gormally, Unionville; beef cattle and sheep, C. P. Everett, Mt. Vernon; dairy cattle and swine, A. Kennedy, Ayr. Watertown, Oct. 3; Acton, Oct. 4.

Horses, A. G. Gormally, Unionville; beef cattle and sheep, H. R. Elliott, Guelph; dairy cattle and swine, R. H. Williams, Guelph. Wellesley, Sept. 15th.

Judges Appointed for Winter Fair, 1905

CATTLE

J. T. Gibson and one other not finally appointed.

Beef Carcasses—Prof. G. E. Day, A. W. Tyson.

SHEEP

Southdowns, Shropshires and Dorset Horns—J. C. Duncan, Lewiston, N.Y.; Reserve, Robt. Miller, Stouffville.

Cotswolds, Leicester and Lincolns—Jas. Snell, Clinton; Reserve, Geo. Weeks, Glanworth.

Oxford, Suffolks, Hampshires—Lazarus Parkinson, Greenock; Reserve, Wm. J. Arkell, Teesewater. Grades and Crosses and Sweepstakes—J. C. Duncan, Jas. Snell; Referee, Prof. G. E. Day.

Sheep Carcasses—Prof. G. E. Day, Geo. F. Morris, London.

SWINE

Yorkshires and Tamworths—Wm. Jones, Mt. Elgin; Reserve, A. C. Hallman, Breslau.

NOTICE

We have been greatly reducing our herds but still have a few good Jerseys and a number of Guernseys to dispose of. Breeders will find it to their advantage to correspond with us.

DENTONIA PARK FARM, Coleman, P.O., Ont.

Berkshires—R. H. Harding, Thorn-dale; Reserve, J. C. Smith, Hintonburg.

Chester Whites and Any Other Breed, Grade or Cross—G. B. Hood, Guelph; Reserve, Peter McEwan, Kerich.

Live Bacon Hogs—Prof. G. E. Day, Wm. Jones and Dr. F. J. Smale, Toronto.

Bacon Carcasses—M. Cumming, Truro; a second judge to be appointed.

DAIRY

Prof. H. H. Dean.

DRESSED POULTRY

W. R. Graham, Guelph, and Wm. Barber, Toronto.

JUDGING COMPETITION

Prof. G. E. Day.

Quebec in Line

At a largely attended meeting of the General Breeders' Association of the Province of Quebec, held in Montreal on June 13th last at which the Hon. Mr. Fisher was present, it was decided to join with similar organizations from the other provinces in the establishment of National Live Stock Records. The resolution adopted reads as follows:

"That the General Breeders' Association of the Province of Quebec, represented by the directors of its various sections and by the general board of management at a special convention called for that purpose, decide that it is expedient to be incorporated under the provisions of the federal Act respecting the incorporation of the Live Stock Record Association, to nationalize its various Record Books and to transfer them to the Department of Agriculture of Canada in the course of this fall where the registration of live stock will thereafter be made."

The meeting also decided that the foundation stud book of the French-Canadian horse be closed on Dec. 31st next.

Holstein Records

The sub-committee of the Canadian Holstein Association, after a careful investigation, report that the cost of conducting the business of the association in Ottawa as it should be conducted, would involve an immediate increase of \$350 in the annual expense of the association. The committee also report that they failed to come to a satisfactory understanding with the Minister in the matter of their records being conducted independently of the live stock division of the department as at present organized.

In the matter of the probability of their cattle being discriminated against in the matter of freight rates if they refused to nationalize their records, the committee found, after enquiry of the proper officials, that there is little likelihood of any such injustice being inflicted upon any cattle breeders' association that is incorporated, as they are, under a Dominion charter. They are, however, further investigating this matter and expect to report more definitely in the near future.

TROUT CREEK

SHORTHORNS

Bulls in service: Gold Cup (imp.), bred by W. Duthie and Ardlethen Royal (imp.), a Marr Princess Royal.

James Smith, W. D. FLATT, MANAGER, HAMILTON, ONT.

Wm. Grainger & Son
Hawthorne Herd of Deep
Milking Shorthorns

Aberdeen Hero, (imp.) at head of herd. Present offering, six good young bulls by Scotch sires. Come and see what we have. Londestbor' Sta. and P.O.

MAPLE LODGE STOCK FARM

Scotch Shorthorns, Choice Milking Strains, Prize Winning Leicesters, Young Stock for sale—imported and home bred.

A. W. SMITH, Maple Lodge, P.O., Ont.

Pine Grove Stock Farm
Rockland, Ontario, Canada.

Breeders of choice

Scotch Shorthorns and
Shropshires.

W. C. Edwards & Co., Ltd., Props. Joseph W. Barnet, Manager.

Menie Stock Farm.

Some fine young Ashshire stock for sale. As I have two herd bulls I can furnish pairs not akin. Write for prices.

A. HUME, - Menie, Ont.
Hoard's Station, G.T.R.

CHAS. RANKIN Wyebridge, Ont. importer and breeder of Shorthorn Cattle and Oxford Down Sheep. Herd headed by Prince of Scotland (imp.). Fair Sale—Females and bulls of all ages, from noted Scotch families.

HOLLYMOUNT STOCK
FARM

MITCHELL, - ONT.

Pure-bred Shorthorns of best imported strains. Present offering—A grand 12 mos. bull calf from imported sire and dam.

Address:

W. J. THOMPSON, Mitchell, Ont.

Shorthorns, Highlands and Shropshires for Sale.

Bulls and calves of approved breeding and quality. Clyde Hillie, imported and home bred. Shearing and ram lambs, imported. Mansell, Prices Moderate. G. A. WOODIE, Bethesda, Ont., Stouffville Sta.

BOOK FREE, entitled "How to Make Hogs". A post card to the Thompson Mfg. Co., Ltd., Grand Bay, N. B., brings it.

Remounts

Col. Bridge, of the British army, examined 140 animals in Toronto a week ago. Taken as a whole, the horses were of high quality, but they were hardly the kind demanded for the British army. Many were too light in the bone. Those that had weight enough were frequently lacking in speed, and where weight and speed were found combined, conformation was sometimes defective. The prices paid for the animals selected ranged from \$145 to \$200. Only a very small proportion of those offered were taken.

12,000 Animals Entered

It is interesting to note that no fewer than 12,000 animals will be on view at the one time in the buildings and on the grounds of the Canadian National Exhibition, from August 26th to September 11th. This vast total is made up of twelve or thirteen hundred horses, eight or nine hundred cattle, eleven or twelve hundred sheep and swine, eight or nine hundred dogs, and upwards of 4,000 poultry and pot stock.

Compton Model Farm to Be Sold

It is reported that the Provincial Model Farm at Compton, Que., will be sold by the local government. The property consists of 160 acres of cultivated land, with live stock, farm implements and buildings. The farm was acquired by the government in 1893 for \$11,000 and great results were expected from it for the advancement of higher agriculture in Quebec. The farm, it is claimed, never amounted to very much and has cost the government about \$75,000 without any direct return. One strong feature of the farm has been the dairy and we would be sorry to see its usefulness lessened. The dairy was erected at a cost of \$7,000 and has done some excellent work; butter made there has carried off the best prizes at the leading provincial and other fairs.

The establishment of the Macdonald Agricultural College at St. Annes, perhaps, makes a second agricultural college in Quebec unnecessary.

A Jersey Cow's Record

The attractive-looking cow, Dorinda Darling 146229, despite her sloping rump and some other points a little out of harmony with the scale, stood high as an economical producer of milk and butter. At her last demonstration, being the fourth Jersey in Class A, and receiving official diploma as fourth in best five cows of any breed, Class A. She did not get amongst the best in Class B, her herd mate, Prize May's Duchess 2nd, defeating her in this class by a margin so small as to be almost negligible. She freshened April 4, 1904, so had been seventy-two days in milk at the beginning of the test, June 16, her age being six years six months. Her official record during the 120 days of the test is as follows: Milk, 5,555 lbs.; fat, 255.32 lbs.; estimated butter, 300.51 lbs.; solids not fat, 468.76 lbs. It required nearly 18½ lbs. of her milk to produce one pound of butter (estimated).

Her daily average production was: Milk, 46.3 lbs.; fat, 2.13 lbs.; butter, 2½ lbs. Her highest single day's butter yield was 2.04 lbs., on July 3. The average percentage of fat in her milk was 4.6. During the test the fat percentage varied from 3.9 (on two days only) to 5.4. The average percentage of total solids was 13. For the sixty-five days preliminary to the

test, Dorinda averaged 47.6 lbs. milk and 2.23 lbs. estimated butter. For the last week of the test she averaged 44.4 lbs. milk daily, but 2 lbs. under her average for the test, showing splendid persistency. Her best week's production was 50.3 lbs. milk and 18.93 lbs. butter, September 13 to 19. From April 12 to the end of the official test, October 13, 185 days, she produced 8,649 lbs. milk and 445.68 lbs. butter, a daily average of 46.8 lbs. milk and 2.41 lbs. butter.

Dorinda was supplied with the following rations during the official test: 1866.8 lbs. alfalfa hay, 723.4 lbs. cut alfalfa, 54 lbs. clover hay, 1708 lbs. corn silage, 374.5 lbs. corn meal, 420.5 lbs. bran, 120.5 lbs. ground oats, 203 lbs. oil meal, 40 lbs. cottonseed meal, 394 lbs. gluten feed, 100 lbs. corn hearts, 80 lbs. hominy feed and 91 lbs. distiller's grains. This was an average consumption of 36.4 lbs. roughage and a little over 16 lbs. grain per day. This feed was valued at \$209.48.

In Class A, her butter was valued at \$75.128, leaving a net profit of \$46.08. In Class B the total value of fat and solids not fat was \$20.641, leaving a net profit of \$61.591. In other words, she earned 38 cents per day as a butter producer and 51½ cents per day as a milk producer.

Dorinda weighed at the beginning of the test 877 lbs., and at the end 908 lbs., having thus gained 31 lbs. in 120 days. This leads one to think that possibly she might have produced just as much milk with a little less feed and furnished a little higher net profit.

R. M. Gow.

Prince Edward Island

Fine weather again. On June 27 a heavy rainstorm set in which continued for two days. The weather was decidedly cool and overcasts were again appreciated. As the crops were beginning to suffer from drought the rain appeared to put new life into them. Everything looks well, especially the hay and clover. Our farmers are looking forward to an abundant harvest. Early turnips look well in some sections. Planting was late on account of the cold, backward spring. Some of our farmers were sowing late turnips on June 30. Cattle are milking well, and the factories are doing a rushing business. There has been a large crop of chickens this year. Our farmers are finding out that poultry raising pays well.

CHARLOTTETOWN MARKETS

Beef, small, 8 to 12c; oats per bus., 50c; butter per lb., 18 to 19c; eggs per doz., 15 to 16c; geese, each \$1; fowls per pr., 75 to 80c; hay per cwt., 75 to 80c; mackerel, 15c each; codfish, 10 to 12c each; honey, 25c per lb.; strawberries, 10c per tumbar; lamb, 12c per lb.; fresh pork, small, 12c per pound; cream, 20c per qt.; lettuce, 5c per bunch; potatoes, per bush, 20c; pork, carcass, 7c per lb.; oatmeal, per lb., 35c.

SUMMERSIDE MARKETS

Beef gr. per lb., 6 to 7½c, small, 6 to 12c; cattle, dressed, per lb. 6 to 12c; lamb carcass, \$2.50; butter, fresh, per lb. 18 to 20c; eggs per doz., 13 to 14c; flour per cwt., \$1.00; hay per ton, \$10; \$10 to \$16; calskins, per lb., 6 to 6½c; hides per pound, 6 to 6½c; oats, per bushel, 47c; wool per

lb., 24c; wheat per bus., \$1.10 to \$1.25; pork carcass per lb., 6 to 6½c; potatoes per bush, 15c; fowl per lb., 10 to 12.

A meeting of the Farmers' Institute was held at Eldon on June 28. Mr. Anderson and Mr. Moffatt delivered excellent addresses. The meeting was well attended and the speakers discussed the breeding, feeding and selection of dairy cows. Mr. Moffatt made an eloquent appeal to the farmers to stay in the dairy business, and insisted particularly that in order to keep only the best in the herd it was necessary to resort to the use of milk scales and the Babcock test.

Mr. Anderson pointed out the great necessity for care in the breeding and raising of dairy stock. He advocated the use of succulent food, such as roots during the winter months. A lively discussion followed on the ways and means of restoring soil fertility.

Two Ayrshire cows, owned by J. C. Moore and F. Haliday, were judged. Each farmer was supplied with a score card. Mr. Anderson first went over the cow and showed her strong and weak points. After the farmers marked their cards, Mr. Anderson corrected the score and had each man give his reason for making a cut on such points. A pure-bred Ayrshire bull owned by Mr. Haliday was also shown.

Horses are in good demand, and sell from \$100 to \$150.

The P. E. Agricultural and Industrial Exhibition prize list for 1905 is out. The exhibition will be held from Sept. 26 to 29th. Over \$6,000 in prizes are offered. The races will take place on Sept. 27 and 29. A.R.

Toronto Bench Show

We are in receipt of advanced proofs of the prize list of the 17th annual Bench Show in connection with the Industrial Exhibition at Toronto, which is to be held this year from Sept. 4th to Sept. 8th. There have been several changes made in the list as a whole, the chief one being the equalization of the prize money in the various classes, that is, the puppies, novice and limit classes have been brought up to the money offered heretofore in the regular open classes, viz.—\$8 first, and \$5 second. This makes a large increase in the amount of money offered. There is a full classification of puppies, novice, limit and open in the following breeds: St. Bernards, English and American Fox Hounds, Fox, English and Irish Setters, Cocker Spaniels, Collies, Bull-dogs, Fox Terriers, Smooth and Wire Bull Terriers, Boston Terriers, Irish Terriers, and Black and Tan. In the other breeds some have a very full classification, while others are not so large owing to the entries in the past not justifying the committee in enlarging upon the classes that we have had hitherto—Sept. A. W. Bell, Toronto.

MONKLAND HERD

YORKSHIRES

Good Quality. Easy feeders
JAS. WILSON & SONS,
Fergus P.O. and Sta., G.T.R. and C.P.R.

Large English Yorkshires.

A choice lot of bred sows, improved stock. Fat and trim-supplied, not skin. Ready for service, and a fine lot of Spring pigs from improved stock.

Address H. J. DAVIS, Woodstock, Ont.

Market Review and Forecast

The Trend of Markets—Supply and Demand—The Outlook

Toronto, July 12, 1905.

Trade is quiet, which is not unusual at this season of the year. Prospects are generally good. Call money is steady at about 4½ and discounts at from 6 to 6½ per cent.

WHEAT

The general crop condition on this continent seems to be favorable. There have been reports of rust in some of the western states, but so far this is local and affects the general yield but little. There have been rumors of rust also in Manitoba, but these have not been authoritatively confirmed. Estimates of the western crop have dropped a little and 70,000,000 bush. is put down by the Ogilvie Milling company as a safe figure. Through Ontario the crop outlook is excellent. In Western Ontario where winter wheat is mostly grown some are forecasting general yields of from 30 to 40 bushels per acre. The market at the moment is quiet with nothing exciting about it. Red and White are quoted here at 95 to 96c and goose at 78 to 80c., at outside points.

COARSE GRAINS

As with wheat, there is prospect of a big yield of coarse grains. Oats are likely to be a bumper crop. The U. S. crop, according to reports, is likely to yield, but the average quality will not be as high as last year. The market has ruled quiet of late. 50c is the highest quotation at Montreal and 47c here, which are good prices for this cereal. The barley and pea market rule quiet, but steady at quotations. Corn crop conditions in the United States, generally speaking, average about the same as they did last year at this date. The corn outlook here is not the best, though the recent spell of warm weather has improved things somewhat.

HAY AND STRAW

Canada will have at least a good average hay crop if not a "bumper" one. Reports from Quebec indicate that while new meadows will give big yields the old meadow crop will be on the light side. The weather has not been the most favorable for haying and consequently a good deal of badly cured hay will result. In fact some of this quality has already appeared on this market. While a fair demand exists at Montreal for good quality, the market here is dull at \$7.50 to \$7.75 per ton for baled No. 1 timothy in car lots, and \$6 for No. 2. Receipts are heavy.

Baled straw rules steady at \$5.75 to \$6 per ton, for car lots on track.

EGGS AND POULTRY

The hot weather has played havoc with egg receipts, many of them arriving in bad condition. Trade is steady, though very little is being done in an export way. Some English buyers, who have come to Canada for supplies, have been unable to buy owing to the price being too high. Straight stock at Montreal is quoted at 16 to 16½c. Prices hold steady here at 17c in a jobbing way. There is no movement in dressed poultry.

POTATOES AND BEANS

New potatoes are in good demand here at 80 to 90c per bushel and \$2.50 to \$2.75 per barrel.

Good beans are to be very scarce. Choice primes are quoted at Montreal at \$1.60 to \$1.65.

FRUIT

The outlook for apples seems to indicate a fair average crop of fall and winter fruit. A big apple crop is promised in the vicinity of Montreal. Receipts of small fruits here have been somewhat light, especially strawberries, which are selling at 9 to 11c wholesale. Raspberries and huckleberries have begun to arrive; the former are quoted at 12 to 15c and the latter at 9½c per qt. Sweet cherries sell in a wholesale way at \$1 to \$1.25, and red at 80c to \$1 per large basket.

DAIRY PRODUCTS

The cheese market is firmer and higher. An increased consumptive demand in England is said to be the cause. Stocks there are light also. Cheese are now quoted at 95 to 105 more per 112 lbs. in Great Britain, than at this time last year. Prices on this side are from 2 to 2½c per lb. better than a year ago. Notwithstanding those higher prices, our exports so far are considerably ahead of last year. Ontario cheese is quoted at Montreal at 9½ to 10c, and Quebecs at 9½ to 9½c. At the local markets, from 1½ to 1½c seem to be the ruling figures. The butter market also shows an advance. Choice creamery is quoted at Montreal at 27c., and undergrades at 26 to 26½c. The market here has

a firmer tone at 19 to 21c for creamery prints, and 18 to 19c for solids. Choice dairy rolls sell at 15 to 17c., and tubs at 15 to 15½c in a jobbing way. There has been large buying of creamery butter in the country of late and very little if any June make is in the factories. This butter is said to have been bought on English account.

WOOL

Wool prices keep up. London wool sales report all varieties from 4 to 10 per cent. dearer. At Montreal, Canadian pulled wool was quoted at 30 to 31c; washed fleece at 20 to 27c, and unwashed at 18 to 20c. Here unwashed is quoted at 15, and washed at 24 to 25c. It is reported that some sales have been made at Ontario points at 26 to 27c for washed fleece.

LIVE STOCK

The receipts of live stock here ruled heavier of late. There were 79 cars at the city market on Tuesday last and 83 at the Union Stock Yards, Toronto Junction, on Monday last. The quality of the fat cattle offering is only fair, but few well finished lots coming to hand. At the city market trade has ruled slow and dull excepting for well finished stable cattle. But few exporters are offering. They bring from \$2.75 to \$5.25 per cwt., the bulk going at \$5. Export bulls are slow of sale at \$3.50 to \$3.75 per cwt. Prices for butchers' cattle rule lower this week than since the April boom. Picked lots bring \$4.60 to \$4.75, with very

Capital Authorized,
\$2,000,000.00.

Head Office, Toronto, Ont.

EDWARD GURNEY,
PRESIDENT.



EVERY DESCRIPTION OF BANKING BUSINESS TRANSACTED.

Special Attention given to Accounts of Cheese Factories, Drovers and Grain Dealers, and all out-of-town accounts.

Farmers' Notes Discounted, Farmers' Sales Notes Collected and Advances Made against their security.

Municipal and School Section Accounts received on favorable terms.

SAVINGS BANK DEPARTMENT Deposits of **Twenty Cents and upwards** received, and interest at 5 per cent. per annum. **FOUNDED FOUR TIMES A YEAR**, without presentation of passbook. No delay in the withdrawal of any portion or the whole of the deposit.

G. de C. O'GRADY, General Manager.

The Canadian Produce Markets at a Glance

The highest quotations of prevailing prices for standard grades of farm produce in the leading markets on the dates named. Poorer stuff lower.

Date	Toronto		Montreal		St. John		Halifax		Winnipeg	
	13	12	13	12	13	12	13	12	13	12
Wheat, per bushel.....	\$ 0 95	\$ 0 98	\$...	\$...	\$...	\$...	\$ 1 02			
Oats, per bushel.....	46	50	56-57	55	41					
Barley, per bushel.....	48	51	55	50	40					
Peas, per bushel.....	72	84	77	88	...					
Corn, per bushel.....	64	61	65	66	...					
Flour, per barrel.....	4 30	5 10	6 00	6 10*	4 60					
Bran, per ton.....	14 00	15 00	22 50	22 50	14 00					
Shorts, per ton.....	17 00	17 00	22 50	24 00	16 00					
Potatoes, per barrel.....	1 25	52	30-35	30-35	1 00					
Beans, per bushel.....	1 65	1 70	1 80	1 90	1 75					
Hay, per ton.....	7 75	9 00	13 50	13 00	8 00					
Straw, per ton.....	6 00	5 50	9 00	9 50	...					
Eggs, per dozen.....	17	17 1/2	18	17	15					
Chickens, per pound, d.w.....	17	16	per 11 00	1 00	per 11 12					
Ducks, per pound, d.w.....	15	15	per 1 00	1 00	per 1 12					
Turkeys, per pound, d.w.....	13	15	20	20	18					
Geese, per pound, d.w.....	12	13	16	16	11					
Apples, per barrel.....	3 00	3 50	3 50	3 50	6 00					
Cheese, per pound, d.w.....	10 1/2	10 1/2	11 1/2	11 1/2	11 1/2					
Butter, creamery, per pound.....	21	20 1/2	22	22	21					
Butter, dairy, per pound.....	17	17	18	20	16					
Cattle, per cwt.....	5 25	5 25	5 50	6 00	4 00					
Sheep, per cwt.....	4 00	3 75	5 50	5 50	5 00					
Hogs, per cwt.....	0 25	0 25	0 25	0 25	0 25					
Cattle, per cwt.....	5 75	5 25	5 00	6 00	...					

THE FARMERS' EXCHANGE

One Cent with Order
Cash with Order

A description under this head one cent a word. Cash must accompany orders. All display type or cut oil used. Each initial and number counts as one word.

FARMS FOR SALE

GENTLEMEN'S HOMESTEAD for sale, in the City of Brampton, consisting of nearly 7 acres, solid brick residence in first-class repair, good drive house and stable, root cellar, lawn house, 12 1/2 acre and coal house, two ophelia, close to schools and churches. Grand Trunk Railway Main Line Station. Suitable for retired farmer. Write or call upon S. G. READ & SON, 129 Colborne Street, Brantford, Ont.

FIRST-CLASS DAIRY OR STOCK FARM, 150 acres, well watered, 8 miles from Toronto. Large new bank barn, hog pen, poultry house, new solid brick house. Possession next spring. Terms to suit. Inquiries for further particulars address F. G. GARHUT, 231 Euclid Ave., Toronto.

LIVE STOCK

SHORTHORNS—The best and butter combination. Scotch origin, guaranteed stock. Write for particulars. H. C. GRAHAM, Alton Craig, Ont.

SHROPSHIRE Rams and Woes of all ages for sale at reasonable prices. J. W. GOSNELL & SONS, Ridgeway, Ontario.

NURSERY STOCK

WANTED—Energetic, responsible men to sell fruit trees, ornamental trees, etc. Clearing outfit free. Liberal pay weekly. Arrangements made for whole part time. We also have a special line of seed potatoes never before offered for sale in Canada. For terms apply NOW. **PELHAM NURSERY COMPANY, Toronto, Ont.**

BALERMAN wanted for our busy Nursery Stock. Choice material. Liberal terms. Elegant outfit free. **J. W. GOSNELL, CAYERS BROS., Gait, Ont.**

STRAWBERRY PLANTS—All the new kinds raising big crops of big fancy berries. \$1.00 in plants will grow enough for you and your neighbors. Our prices are low. A. W. SMITH, Box 2, Beachville, Ont.

SEED POTATOES—Ontario College Farm experiments with 194 varieties, some yielded 300, others 125 bushels, some half rotten, others none. What kind of croppers are you growing? Get some new seed, double your crops. Don't grow rotten ones. Sent for list. 25 varieties, low prices. A. W. SMITH, Box 2, Beachville, Ont.

WANTED—A few good reliable men, with horse and rig to introduce and sell our goods, also a local agent in towns where we are not represented. Exclusive territory, permanent work and good pay. **H. W. GALT, St. James, Montreal.**

POULTRY

BUFF ORPINGTONS—8 brooding pens this season, headed by imported and prize stock. Eggs \$100, \$120 and \$150 per setting. Incubator eggs \$3.00 per doz. Price on order. See catalogue describing them. **J. W. CLARK, Free Organisation Club, Importer and Breeder, Cainsville, Ont.**

HELP WANTED

BRIGHT YOUNG MEN wanted to prepare for positions on Canadian railways. Write for forty to sixty dollars per month. Write for free book giving more particulars. **DOMINION SCHOOL OF TELEGRAPHY, Toronto.**

MACHINERY FOR SALE

ROAD ROLLERS, Graders, Plows, Scrapers, Rock Crushers, Elevators, Screens, Sifters, Spreading Wagons, Dump Carts, Concrete Ties, Moulds, and Contractors' Supplies, Catalogues, prices and estimates free. SAWYER & MASSEY, Road Machine Department, Hamilton, Canada.

CONCRETE MOULDING—Assorted sizes, new Steel Moulds (all diameters) for manufacturing concrete drain tile, well curbing, etc. Newest and nicest thing in concrete. Made of the most expensive concrete mixture also. **SAWYER & MASSEY, Road Machine Department, Hamilton, Canada.**

few reaching these figures. The best loads sell at \$4.25 to \$4.50; medium, \$3.75 to \$4.25, and common, \$2.50 to \$3.50 per cwt. Feeders and stockers are lower in sympathy with fat cattle. Light feeders sell at \$3.75 to \$4, and stockers at \$2.75 to \$3.50 per cwt. Trade in milch cows has been slow. They sell at \$2 to \$2.50 each, with very few reaching the latter figure. Veal calves are firm and sell readily at \$2 to \$10 each, or \$3.50 to \$5.75 per cwt.

Trade in sheep has been fair at steady to firm prices. Export ewes are quoted at \$3.75 to \$4, and bucks at \$3 to \$3.25 per cwt., and lambs at \$1.50 to \$1.25 each.

While deliveries of hogs are not large, prices are lower at \$6.25 for selects and \$6 for lights and fats. Buyers complain of too many rough unfinished light as well as some heavy fat hogs coming forward. It is claimed that this class of hogs are not wanted. But who is to blame for their increase in numbers but the buyer who does not pay a sufficient premium for selects. If the packer can pay only \$6.25 for selects, then reduce the price of lights and fats to \$5.50 per cwt., and the supply of the latter will soon fall off.

HORSES

The local horse market here is dull, though not any more so than is usual at this season. General prices, however, for all classes are well maintained. The draft horse is still to the top. Geo. Little, of Scarborough, has a two-year-old fully bred, by Lyon Macgregor, to Mossom Boyd, of Owen Sound, for \$375. Current prices at the Repository, Toronto, are as follows:

Single roadsters, 15 to 16 hands, \$125 to \$300; single cobs and carriage horses, 15 to 16 1/2 hands, \$125 to \$225; matched pairs and carriage horses, 15 to 16 1/2 hands, \$350 to \$700; delivery horses, 1,100 to 1,200 lbs., \$125 to \$165; general purpose and express horses, 1,200 to 1,350 lbs., \$130 to \$175; draught horses, 1,350 to 1,750 lbs., \$140 to \$190; serviceable second-hand workers, \$50 to \$90; serviceable second-hand drivers, \$65 to \$100.

MARITIME MARKETS

Halifax, N.S., July 10, 1905.

There is a slight tendency towards easier prices in eggs which was so long looked for. Island handlers are a shade lower in quotations. In the Upper Provinces the expectation is that hot weather will see a reduction in price. They are still jobbing here at 17 to 18c and the demand is good at that price. The shortage in receipts is unaccountable.

Receipts of butter are improving, but are far below the average for this season of the year. The price remains as firm as ever, and the fact that large handlers in the Upper Provinces are putting a lot into cold storage at present prices does not look as though they anticipate any material reduction. There is a considerable quantity of local made creamery butter now on the market. Creamery tubs and boxes are quoted at 21c, creamery prints 22c, and dairy tubs 18c.

The outlook for cheese factories is not very promising, due principally to the scarcity of milk.

In vegetables there is now nothing but imported stock on the market with the exception of old potatoes, which are plentiful at \$1 for three bush. Native strawberries are making their way on the market at 18 cents per box.

In the matter of flour and feed the market is firm and the buying demand good. The crop outlook for the province is good and the hay yield promises to be large.

Dairy Farmer's Discouragement

The chief weaknesses of the dairy industry from the farmer's point of view are: 1. Not enough return, in some seasons, for labor and capital expended. During a great part of the season of 1904 the money received in breeding dairy stock did not pay the man who milked the cows, and he grew discouraged. It would seem as if there should be some way to prevent these discouraging seasons. The chief cause is doubtless speculation. How to prevent this is a subject well worth the attention of political economists. 2. Lack of paying cows. When one considers how difficult it is to obtain and maintain a herd of first-class cows, some allowance must be made for the man who milks some poor cows. But one of the greatest hindrances to the securing of better cows is the lack of systematic breeding for a definite purpose. There is altogether too much "hit and miss" in the methods adopted in breeding dairy stock. The use of pure-bred sires and the sticking to one breed, rather than mixing the breeds, are the two main requisites for success in establishing and maintaining a dairy herd.

3. Lack of proper reward for improved efforts is another weakness from the viewpoint of the dairy farmer. We still find the same price being paid for all kinds of milk and cream regardless of its value. As a result of this many of the best and most progressive patrons of our factories are leaving the factory and making the milk up at home, or are selling milk direct to the consumer. In consequence, we find markets like Toronto flooded with dairy butter which often sells for a price that can leave little or no profit for the farmer; yet he considers this better than the injustice meted out at many factories. Grading of cream at creameries, and payment for milk according to its cheese or butter value are steps that should be taken by factory owners in order to give justice to all and to retain the patronage of the best farmers.

4. The labor problem is also a difficult one for dairy farmers. Especially is the milking of cows a serious question. We feel confident, however, that a practical milking machine will be placed on the market in the near future. In the meantime dairy farmers should not grow discouraged as dairying is and will continue to be the best paying branch of agriculture throughout a term of years.—Prof. H. H. Dean, O.A.C., Guelph.

The Patient Farmer

The teamster strikes for shorter hours, the miner wants more pay, the mason and the carpenter demand an eight-hour-day. The section hand throws up his job, the factories are closed, and everybody else, it seems, to work is indispensible. But still the farmer never kicks; he plants and sows and plows; he works till dark and then goes home and milks ten head of cows. He never asks for shorter hours; he does not complain; he's up at four o'clock next day and milks the cows again. Then to the fields he hurries forth and sings his merry tune, and wonders what the world is going to be next June.—Exchange.

Movement for Good Seeds

(Continued from p. 532.)

send a seed institute train over the west in the interests of good seeds.

The Canadian Seed Growers Association is no longer affiliated with the Department of Agriculture at Ottawa, but is a separate and distinct organization receiving an annual grant to carry on its work.

Owing to the wish of the Minister of Agriculture that no officer of his department be allied with any separate organization receiving Government aid, Mr. G. H. Clark, Chief of the Seed Division, was compelled to relinquish the secretaryship. His branch will, however, co-operate in every way in furthering the work of the association.

In Mr. Newman, the new secretary, the association has an enthusiastic and painstaking official. Though he is not "seedy" he has been well schooled in the growing and selection of seeds.

Prof. Robertson made an ideal chairman. His pointed remarks, interjected frequently during the convention, kept up the interest and inspired the members with new zeal and energy.

On Thursday, June 29th, the members spent the morning in visiting the Central Experimental Farm, where they were right royally entertained by Dr. Saunders and his staff. The Farm is looking particularly well at this season.

A deputation from the association waited upon the Hon. Mr. Monteith, and asked his co-operation in making a creditable exhibit of seeds at the Winter Fair at Guelph. Mr. Monteith promised to assist in any way he could to attain this object.

J. W. W.

Poultry Bulletins

Three bulletins containing useful information for the poultryman are being issued by the Poultry Division of the Live Stock Branch at Ottawa. Bulletin No. 7 is a re-written and revised edition of "Profitable Poultry Farming" (No. 6), and contains chapters on (1) Incubation, (2) Brooding, (3) The Chicken Trade, (4) Selection of Suitable Breeds, (5) Crate-fattening Chickens, (6) Preparing Chickens for Market, (7) Marketing, (8) Some Station Work, (9) The Egg Trade, (10) The Flock, (11) Feeds for Poultry, (12) Trap's Nests.

Bulletin No. 8, "Farmer's Poultry House," a pamphlet of 15 pages, treats of the needs, location and essentials of a poultry house for the farm and gives plans of seven good poultry houses used in Canada. Statistics of the value of poultry in Canada, divided into provinces, with quantities exported, etc., are included.

Bulletin No. 9, "Diseases and Parasites of Poultry," also a pamphlet of 15 pages, describes the various diseases affecting poultry, with the treatment adopted by successful poultry men.

Any or all of these bulletins may be had on application to F. C. Elford, Chief of Poultry Division, Ottawa, Ont.

Demand for Seedless Apples

The owners of the seedless apple orchard in Colorado have received a letter from a London, England, firm asking for the entire crop for several successive years. Some time ago four seedless apples were sent to England as curios and attracted much attention, and have, so it is claimed, resulted in a demand for the seedless apple that cannot be supplied from the 2,500 trees in Colorado.

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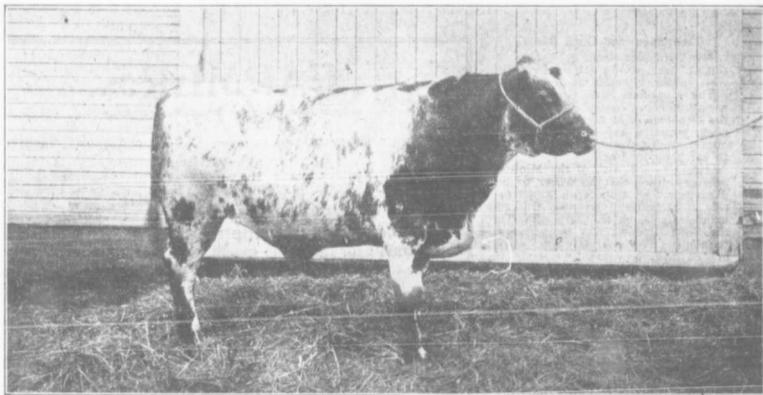
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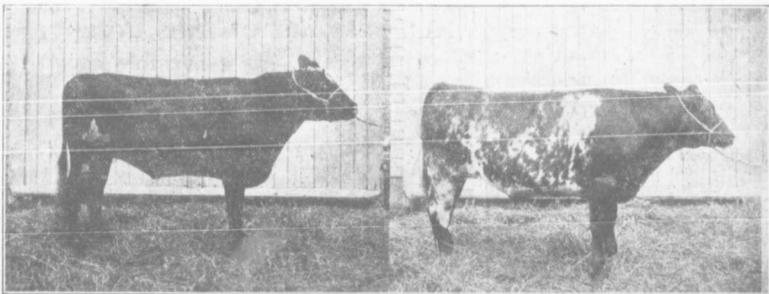
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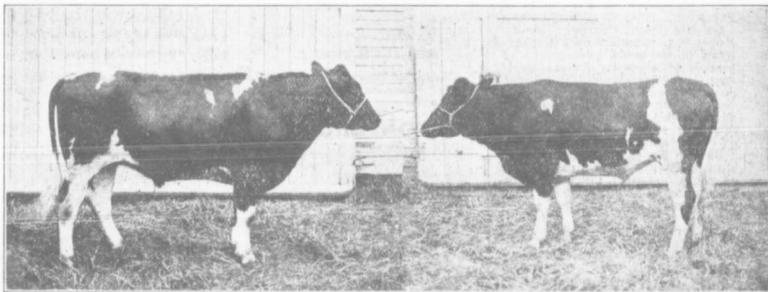


No. 1.—PRIME STEER—MARKET TOPPER.



No. 2.—CHOICE STEER. The photograph hardly does this fellow justice.

No. 3.—GOOD STEER. The photograph shows this steer to be better than he really is.



No. 4.—MEDIUM STEER.

No. 5.—COMMON ROUGH STEER.

Market Grades of Fat Cattle

The above photographs represent the market grades of fat steers as selected by experts at Chicago and exhibited by the Illinois Experiment Station. See article page 516 last issue. Cuts kindly loaned by "The National Stockman and Farmer," Pittsburg, Pa.