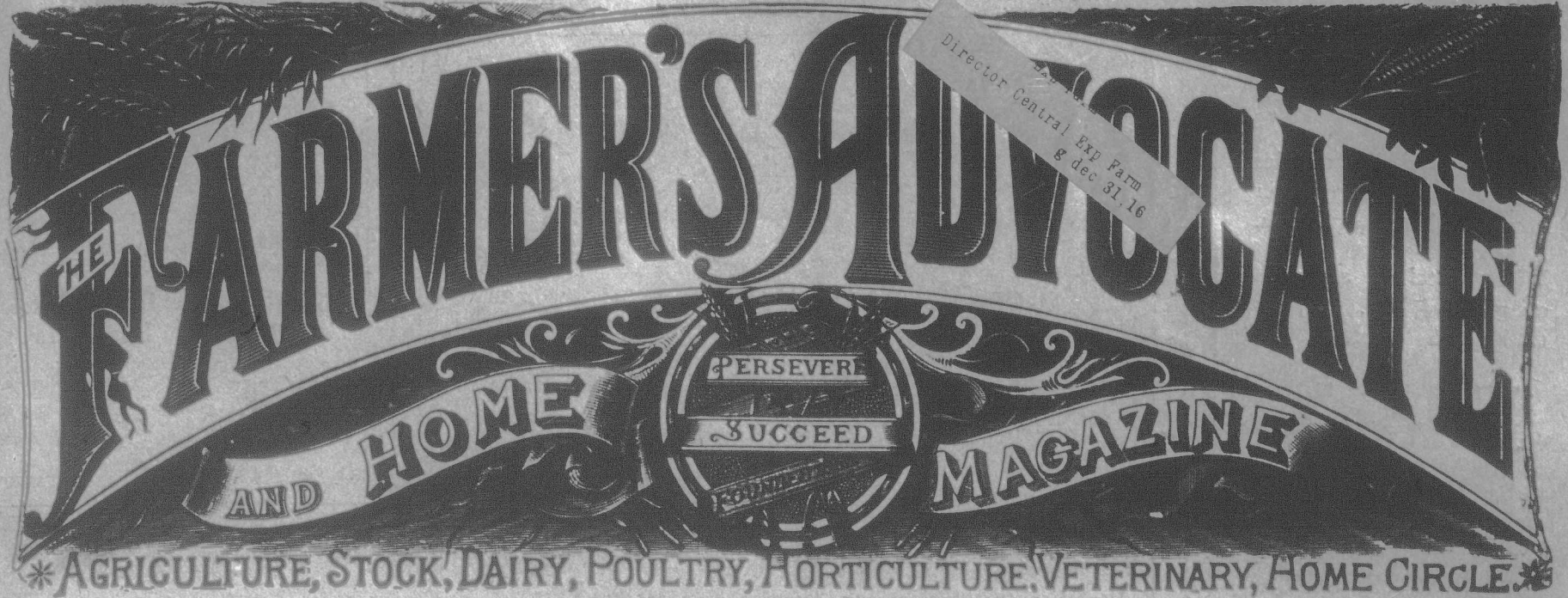


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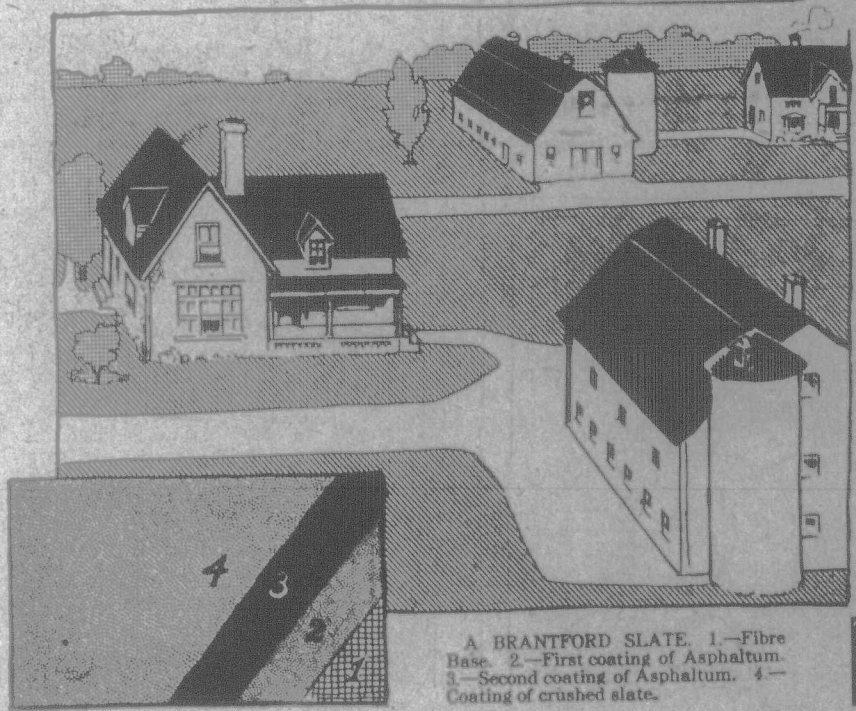
VOL. LI.

LONDON, ONTARIO, SEPTEMBER 28, 1916.

No. 1253

First cost last cost

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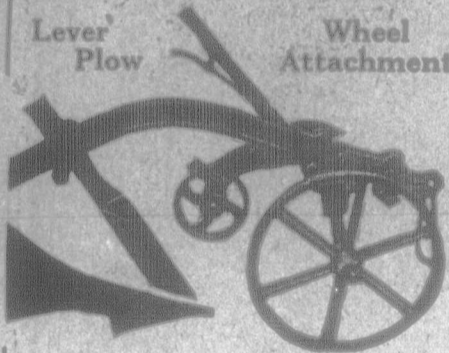
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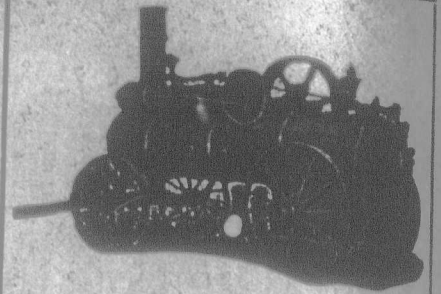
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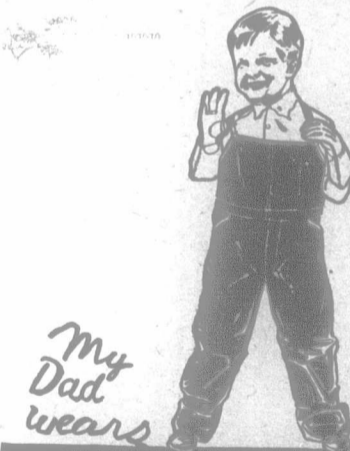
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LI.

LONDON, ONTARIO, SEPTEMBER 28, 1916.

1253

EDITORIAL.

Adversity is a real test of men.

Lift the mangels before they get frosted.

There is still room for more comforts at the front.

Fall, the busiest time in the year, is here in earnest.

Honesty and straightforwardness are rare good qualities in any man.

There are three classes of useful men—producers, munitions workers and fighters.

It will pay to leave the red clover, saved for seed, to be threshed when cold weather comes.

On the nail keg at the corner grocery may be a good place to gossip, but it is a poor place to farm.

The Canadian voter is just commencing to "do things" to governments. It will be good for Canada if he never forgets how.

Prices on some farm crops may be higher this year because of the weather, or of rust. Not all things go up "because of the war."

The judge who satisfies himself is generally a better judge and does better work than the judge who tries to distribute the prizes to please everybody.

The long nights are coming again when good reading should be supplied in plenty to every farm home. Do not forget "The Farmer's Advocate."

Sometimes the grafter feels like singing: "Parliaments come, and parliaments go, but graft goes on forever." No true Canadian can be a grafter.

The greatest short-coming of Canada's fall fairs seems to be a lack of new ideas properly carried out. Surely originality is not dead nor yet exhausted.

Judging from the world-wide campaign against King Alcohol since the war began, this old planet will emerge from the conflict soberer than ever before.

Did you ever stop to think of what it means to be a Canadian? Turn it over in your mind a few times and then never forget that you are a Canadian.

Good seed, thorough cultivation and underdrainage saved the corn crop at Weldwood this year. Now is the time to select good seed, and some drains might be put in next year's corn field this fall.

It would appear that men may be scarcer next year than they have been this, and it is a difficult fall to get work cleared up. However, the man who is ahead this fall will be ahead next year.

It isn't always the man with the hardest hands who makes the most money on the farm. Hard heads are needed as well as hands, and the man who thinks is generally the best manager.

The Kaiser should, by this time, be ready to leave two words out of his epithet directed to the British army. "Kitchener's contemptible little army" should now read, even in Kaiser William's estimation: "Kitchener's Army," and before long it will look like Kitchener's Big Army to every Teuton.

No Third Party Necessary

Canadian politics have developed such a line-up of grafters and charges of graft and corruption from coast to coast as to leave a bad taste in the mouths of all those connected with them and of the electorate as a whole. Things gradually went from bad to worse, until at last indications are that the people are waking up and beginning to deal severe blows at political crookedness. With the need of a clean-up and also with its inauguration comes an agitation for a third party. Third parties have not, in the past, been very successful in this country, nor do we believe the time is ripe for such a step at the present. Two parties are enough for Canada, a third, under present conditions, would only leave another loop-hole and another opportunity for a third set of the same kind of political parasites as those with which the country is already too well supplied. The voice of the people is beginning to be heard. Indications are that large numbers are renouncing partyism as it has been known in Canada, and are exercising their sovereign right of independence at the polls. Many of a certain party leaning must have voted the other way in recent elections, else what has happened could not have transpired. This is what the country needs; independence within the party, exercised by voter and representative. Just so soon as the majority of the people of this country put their independence above party will graft have to go, because no political party could long stay in power unless they did the right thing and carried on the business of the country in the best interests of its people. There seems to be a chance now for honest politicians, and it is to be hoped that the voters of the country will exercise, from now on, their independence and right thinking when elections come round. This will be a surer cure for political ills than could any third party which would eventually become nothing more nor less than increased partyism. Grafting may have flourished to such an extent, like some bad weeds, that it will smother itself. It will if the people say so at the polls.

The Feeder's Problem This Winter

Present indications are that the problem of the live-stock feeder this winter is going to be one which will test his powers of discernment and his ability to the utmost, if he is to carry his stock and finish off the usual quota for the butchers' block. Prices of by-products, millfeeds and coarse grain are, and will continue through the winter to be, high. Hay is plentiful, but the other coarse feed which goes well with clover and alfalfa, namely, corn for silage purposes, is, taking the Province as a whole, a poor crop, and many silos will not be bulging to their usual extent this year. If a feeder has plenty of alfalfa and clover hay and an abundance of good corn silage he can carry the bulk of his stock through without much difficulty, particularly sheep, cattle and horses, the former and the latter not to receive much silage but plenty of the clover hay, and the silage and clover forms a very good, balanced ration for carrying the bulk of the cattle. The dairy farmer is a little harder hit than the man who depends upon beef, because it is necessary to keep his cows up in their milk flow all the time. Some may find it beneficial this year to buy a little cotton-seed meal to add to the concentrate ration, as it contains a very high percentage of protein, and we believe it will be available relatively cheaper than some of the other protein concentrates. It is not a good feed for pigs, but it could be used for cattle to save other grain for the hogs. Where feed must be bought, good alfalfa hay or choice red clover, cut early and well cured,

will likely be about the best proposition. We have heard of it being purchased this fall for eight dollars a ton at the barn, and, according to the price of other feeds, it is well worth it. Feeders, this year, in order to increase the bulk of silage will have to add to it considerable cut straw and cut hay. Many feeders, in an ordinary season, prefer to add about half the bulk of cut straw, as this aids in using up more roughage and is easier on the silage. This year it might be good practice to make the ration half silage and the other half composed of equal parts of hay and cut straw. Straw is going to be scarce on many farms, and some may prefer making a larger proportion of hay, and it will be that much better feed. It will be necessary to plan the feeding so that everything is cleaned up without waste, and cutting, while it causes extra work, will make the feed spin out longer and will be particularly valuable this year in the case of straw, which is none too plentiful. Pigs are heavy grain feeders, but they may be grown more cheaply where pulped mangels or sugar beets are fed. Roots are a small crop this year, but where mangels or sugar beets are available it would be good practice to reserve a few for the growing pigs, because this would probably save more grain than by using all the mangels for the cattle and other stock. The dairyman, who has a few roots and plenty of skim-milk for his hogs, should be able to get them grown fairly reasonably. Idle horses will, in most cases, have to do with good hay. If they have this, and a good turnip is given them once or twice a day they will do with very little grain. Beef cattle that are to be finished for the block will require grain, but the ration should be so balanced with good silage and cut feed as outlined that a minimum of concentrate feed is required. Clean manglers, clean stables, clean stock and careful feeding will be essential to success this year.

The Other Side Of The Labor Question

The scarcity of farm labor is even more acute than ever before. For the past few years farmers have experienced trouble in getting enough help to do the farm work properly, but, since the war, in some sections it has been almost impossible to get men. It seems rather strange, but it is none the less a fact, that even in times of most serious labor stringency some farmers have little or no difficulty in getting and keeping men, while others cannot get them nor can they keep them if they do happen to engage them. We are ready to admit, for we know from experience, that a great deal of the labor on the farm-labor market is of an inferior class, not to be depended upon and with no heart and little head to work. On the other hand, however, there are still a number of men available who are good men, willing and able to do valuable work on the farm. With these latter it is a fact that some of them would be good men on some farms and poor men on others. A great deal must be attributed to the way they are handled, or the management exercised by the farmer. No one would expect the farmer to keep his hired men very long, or to make most from their efforts while he had them, who is now harking back to the days when he paid fifteen or twenty dollars a month to his men and thinking that the man should still work for that money, notwithstanding the fact that the price of butter, eggs, beef and bacon has trebled in the intervening time. It is time now for the farmer to change his tactics, as many of the best land-holders in the country have done, and stop talking about the cost of labor and do some thinking about how to make the laborer more efficient. It is not the wages demanded which should be the basis of hiring a man but the wages actually

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10. **LETTERS** intended for publication should be written on one side of the paper only.
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13. **ADDRESSES OF CORRESPONDENTS ARE CONSIDERED AS CONFIDENTIAL** and will not be forwarded.
14. **ALL COMMUNICATIONS** in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (Limited),
London, Canada

earned. Some men are cheaper at fifty dollars a month than others at twenty, and what the man earns depends largely upon the way his boss uses his head and manages the work on the place. Every employer should, when he gets a man of sufficient calibre that he may be developed into a more valuable workman, plan to train that man and to keep him on the farm. It would also be advisable, from the viewpoint of the hired man, that he accept the training and do his best to be a better man for his employer. In the old days, when wages were fifteen or twenty dollars a month in the summer, the man worked for his board in the winter, doing a few chores or cutting a bit of wood. At the present time, with wages much higher, the farmer must have work for the man to do in winter, and work which will return a profit sufficiently large to pay him to keep a high-priced man the year round. The time is past for the eight-months and the nine-months man. If good men are to be kept on the farms they must be employed by the year, and the work must be planned so that they are busy winter and summer. This keeping of the men busy is where many farmers fall down, and where they show themselves to be inefficient managers. True, a certain class of farm laborer does not require much work to keep him busy, and is so independent, with the wages paid at the present time, that the farmer hardly dare speak a reproving word, else the man flits on to other fields. But to get back to the point, wages are and will continue to be high, and, this being true, it is necessary that the farmer make efficiency the basis of his hiring and pay the man according as he measures up in this respect, and, if possible, employ married men, giving them a comfortable cottage on the farm—a place which may be made a real comfortable home for the laboring man. It is not necessary to work sixteen hours a day if the best management is exercised and the men handled properly. Farm labor is handled in a very loose fashion in this country. No other class of labor is so badly managed, and there is great room for the man on the land who has to pay high wages at the present time to develop his men so they are worth even more than he is called upon to pay them. Plan the work and then work the plan. While doing it,

also work the man, develop his interest, act upon his good suggestions, give him responsibility and have him earn his money in the way he would like to earn it, not as a mere slave but as a helper in the business. Too many men take no interest in their employers' affairs, and very often, we believe, the employer is partly to blame. A kind word now and then and an increase of pay when it is deserved, together with shouldering some of the responsibility upon the man will go farther to develop his interest than anything else, and will make him a long way better hired man than will grumbling about wages, hours and the cost of production. In short, farm labor efficiency comes of good management, and the present-day farmer must make his labor efficient otherwise it will not be worth, to him, the money which he will have to pay for it. It is time to stop talking about high wages and to pay more attention to developing efficiency in the laborer hired. It is possible to develop a man so that he may be more easily worth forty dollars a month at the present time than he was worth fifteen or twenty, years ago, and before he was worked according to the efficiency test.

Poor Advertisers

There is an old saying that it pays to advertise. Most people believe it, and those who have tried it know that it is true. Every farmer and stockman understands why the manufacturing concern, the big merchandising house, the wholesaler and the retailer advertise. And yet thousands upon thousands, in fact the great mass of farmers and stockmen make absolutely no attempt, through local, district, provincial or national papers, to advertise the products which they produce each year. On one farm there may be five hundred bushels of choice seed wheat, which hundreds of farmers in the country round about would be glad to purchase if they knew it were there. A small breeder of pure-bred stock may have a colt, a few choice pigs, sheep or calves which he would like to sell, and there are always dozens of people looking for just such stock, and yet he neglects to advertise. It seems strange how loath rural people are to use printer's ink. Very often the local papers would bring them much more ready sale for many of their products, and the small ad. therein would cost only a trifle. Any pure-bred stock, choice seed of new or well-known varieties would be turned over much more quickly and at an enhanced price by using a judicious amount of space in a live-stock paper and farm weekly such as "The Farmer's Advocate." There is room, on most farms, for a great deal of improvement in knowledge of the science of salesmanship. Most farmers are good producers but poor salesmen. It is absolutely necessary, if the best success is to be made of the farm, to let the other fellow know what you have for sale, and the best place to do it is through a paper which reaches the class of people who are most likely to buy. What merchant would think of stocking his shelves and show-cases and not telling the people what they contained? What manufacturer would last six months in business without advertising? It pays them every time, and properly carried on on a scale only commensurate with the size of the business it would pay every producer of choice farm stock and farm products to let prospective buyers know what he has to offer. It also helps the buyer to get what he wants direct. Judicious advertising is simply co-operation between the man who has something to sell and the man who desires to purchase.

Consolidation In Rural Schools.

BY SINCLAIR LAIRD
DEAN OF THE SCHOOL FOR TEACHERS, MACDONALD
COLLEGE.

The Transportation Problem.

It is clear to every right-minded person that good, rural schools cannot be provided within easy walking distance of one another. If our rural schools are to be properly graded, they must be centralized, and transportation must be provided for pupils who live at a distance. Success of consolidation, from this point of view, depends upon a proper selection of the central school site, carefully planned routes and efficient methods of transportation. All of these can be best dealt with on the spot where consolidation is contemplated, but there are certain principles which must be followed. The experience of other provinces and states has shown that wherever transportation of pupils has

been tried it is an admitted success, whether the population is dense or scattered, whether the area is hilly, as in Massachusetts, or level as on the prairies. It is even a success in winter as in summer, and has found methods of overcoming difficulties in all varieties of conditions.

Transportation Routes.

Consolidated districts should be formed after geographical principles rather than administrative districts. Roads, rivers, lakes and mountains which are the natural boundaries should guide the choice of the school site rather than the geographical centre of the square in which many townships are shaped. As far as possible, districts or parts of districts should be permitted to unite in so far as suitable routes along good roads can be arranged.

Generally trustees are empowered by legislation to spend public funds for transporting children who live outside a reasonable walking distance from school. Sometimes this is permissive only, and school boards are told they may provide public free transportation as in Colorado. In other states it is compulsory, as in Ohio and Missouri. Again the distance for which transportation either may be or must be provided varies considerably. In Arizona and Colorado this can be provided for pupils living more than one mile from school. Pennsylvania orders that "no pupils of abandoned schools shall be required to walk more than 1½ miles to the new school building." The limit is two miles for Ohio, Kansas, Indiana, Mississippi, Oregon and South Dakota. But whether optional or compulsory in law, transportation is necessary in actual fact, whether paid for publicly or privately.

In practice the school van has a definite route, and children meet the van at the roadside at fixed times. The vans run on a schedule time like railway trains, except that they are usually more punctual than trains, and children know when the van leaves fixed points and when it arrives at school. Seldom do the vans call at the doors of the homes. The children must walk to the main road, although some states have limits even for this, and, if the limit is passed, then the van route must be modified to suit. In Ohio the limit is one-half mile, in South Dakota five-eighths of a mile. Sometimes great ingenuity is used to arrange the van routes to the best advantage.

Conveyances.

The school van or wagon is the usual form of conveyance except in winter, but other vehicles are used wherever convenient. For example, steam railways and electric railways are employed whenever possible, especially in village or town consolidation. Motor cars and automobile busses are used in Massachusetts and California, and will certainly become more popular as time goes on. If English busses from London can be used to transport troops over the muddy, shell-torn and traffic-worn roads of Flanders, motor busses have proved their practicability, and they are bound to be introduced more universally in places where the climate will permit their use all the year round. In Virginia a gasoline launch is used on one route. Indeed, in the State of Washington, according to a statement issued by the State Superintendent, almost every type of transportation except the aeroplane and the submarine is used to bring boys and girls to school. This is probably due to the scattered population, lack of steam and electric railroads and its geographical features, which include mountains with deep winter snows, wet weather on the western side, rivers, lakes, ocean and prairies. Despite all difficulties, they succeed in bringing children to the school, because it does not pay to take the school to the children. Indian ponies, bob-sleds, wagons, row-boats, gasoline launches, railways and auto busses are all drafted into service. Sometimes an auto supersedes the horse-drawn wagon, frequently with a financial saving, as in Whatcom County where the wagon used to cost \$65 a month and now the auto only costs \$60, and gives entire satisfaction without taking so much time. Two motor trucks at Marysville do the work of three wagons in half the time. A row boat carries eight children from six to twelve years of age across a cove at a cost of fifty cents per school day. But the best method of transportation for any district depends on local conditions.

The wagon must be strong, comfortable and warm, with glass coverings to protect the front, sides and back from wind and storm. Curtains are unsatisfactory because they darken the interior and shut out the landscape as the wagon passes along. Preferably also the driver should be seated inside along with the children, so as to exact proper conduct and conversation on the part of the boys and girls in his charge. In bad or cold weather the wagons should be heated by foot-warmers, such as the Clark type which uses a special coalbrick for heating, but not by stoves or oil heaters, as these might be dangerous. The usual practice for trustees is to purchase the wagons and let a contract for drivers and teams. Special wagons for the purpose are now sold by several large concerns in the United States at a cost of about \$225, to seat twenty or twenty-five pupils. But they have been much cheaper in Manitoba, ranging from \$125 to \$240. At Sarahville the complete vans with wheels and runners cost \$151. At Roblin, where seven vans brought 100 children to school, the longest route was nine miles and the shortest six miles, "the vans were built in town at the blacksmith shops. They are covered with twelve ounce duck. This, when painted, makes them waterproof and also keeps out the cold winds. The sides are made so that they

can be rolled up in the summer time, thus making them nice and cool. The seats and floors are covered with canvas and carpet and are very comfortable and cosy. For heating purposes we use ordinary foot-warmers, four to a van, and plenty of robes. These keep the children snug and warm on the coldest and stormiest days in the winter time. The vans fit on an ordinary farm sleigh in the winter time, and on a good, stout democrat in the summer."

All wagons, however, should be comfortably cushioned, and in winter should be heated. In most cases the driver, in his contract, undertakes to see that the footwarmers are in good working condition.

Public and Private Transportation.

In most cases transportation is free and is provided out of public funds by the trustees. However, both the public and the private methods are in force in some cases, and should be explained.

In the case of public transportation the cost varies according to the length of the route and the method of payment. When the trustees provide the vans and sleighs the driver usually gets, in Canada, \$2 or \$3 each day that the school is in session, or else a lump sum for the year of about \$500 or \$600. Of course, when the driver provides the van the cost is higher; but this is not a fair system, because if the vans are suitable for the school purposes they are not profitable for other uses. The system of public vehicles with payment by contract for driving which includes the driver's wages and use of teams, horses, robes and warmers is the most widely spread method.

The private method, however, is also common, and takes the shape of family transportation which is practiced in various forms. In this case the parents are responsible for the transportation of their children, and are either paid by the district or do it at their own expense. Four such methods are in existence in North Dakota.

1. All pupils in the district receive a fixed amount for each day's attendance, ranging from ten cents a day in some districts to twenty-five cents in others.

2. The allowance for transportation is graduated according to distance from school, and varies from five cents to twenty-five cents per pupil for each day's attendance. These two methods are in use in Rolette County, and are so satisfactory that Superintendent Sherry states that they give less trouble than any of the other systems. In fact he believes that this is THE system. The advantages over public vans are:

- (a) No child must ride very far to get to school.
- (b) No child need start from home till a long time after the rig would have gone, had it been in use.
- (c) The expense is less and
- (d) the pay is distributed throughout the district.

It might be mentioned that in this county, two of the consolidated school buildings have living-rooms upstairs for the teachers to use, if they desire.

3. In some districts parents that live very far from the school are paid a fixed sum for the family, e.g., one family is paid \$5 a month and another \$2, while all others are required to bring their children free of charge.

4. Parents must bring their children free of charge to public funds. Superintendent West believes in this system. "We do not pay people for having their children educated. If their farms are far from school it is unfortunate, the same as if they are far from the elevator. Besides, there are no farmers who do not have an idle horse that can be put to this use with very little expense to them, but a system of pay increases taxes greatly. These are the arguments we use and they have worked, but they would not work everywhere."

There are advantages and objections in all these methods, and it does not matter whether the payment is a flat rate for attendance or a variable rate according to mileage, or a fixed sum per family, or even if there is no payment at all. The best method depends on the locality and must be worked out from experience. The main point is that transportation must be provided in some way. This is an age of transportation, so why not let children share our modern methods of travel? The distance between schools used to be the distance children could be made to walk. Now it only depends on the distance a child can be transported in comfort.

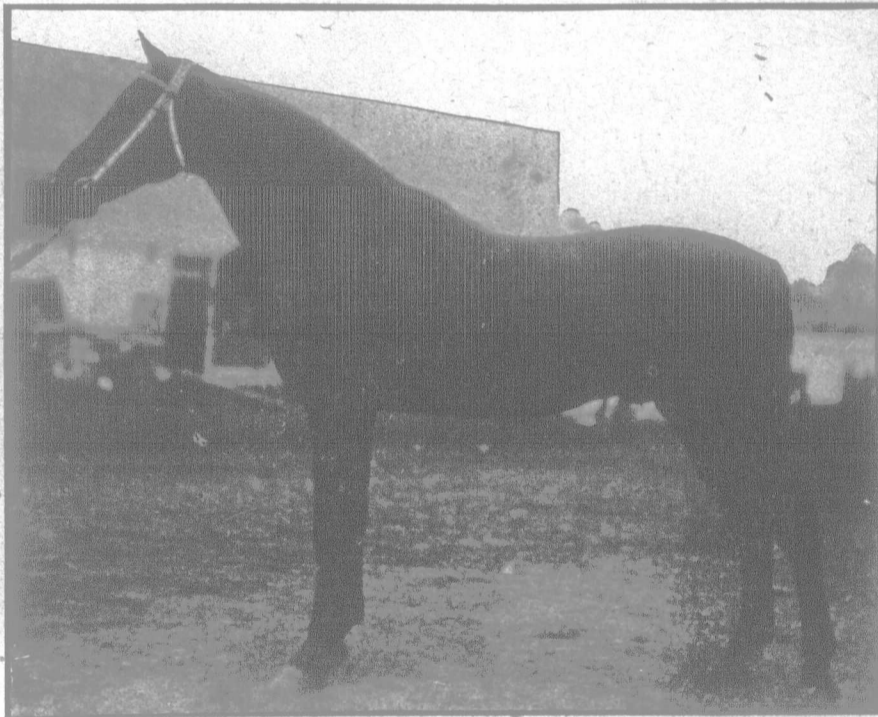
The Driver.

Satisfaction can only be obtained when competent drivers are employed. Fortunately there has been no lack anywhere of trustworthy, temperate and careful men whose word is respected and obeyed. They should have full authority over the conduct of the children and power to force badly behaved boys to get out and walk. Strict discipline must be maintained throughout the journey. Indeed, it has been found that the pupils behave better and are under better control when riding in a van than in the old method of walking alone to school. In most cases the driver is under contract to refrain from the use of tobacco and improper language, and to report improper conduct to the teacher. Experience, however, proves that the conduct is always good and that punishment rarely has to be resorted to. The driver, who is usually a farmer living at the end of the route, furnishes a bond for faithful performance of his duty; he rides inside and keeps good order. In the busy season his wife acts as substitute, and this is found satisfactory in numerous cases. Older schoolboys or hired men are never satisfactory and cannot be recommended. In most cases, especially when the conveyances belong to the school, children feel the right of the school to dictate their conduct on the

journey and recognize the authority of the drivers. In the West there has been no difficulty in securing reliable drivers at \$2.50 to \$3.50 a day; fears regarding colds, contagious diseases, poor ventilation and bad moral tone need never exist. Fighting, quarrelling, bad language and other evils are banished, and parents know their children are safe. Sometimes the driver pays a bond for faithful performance amounting, in some cases, to a month's payment, or, in other cases, a fixed sum of one hundred dollars.

Consolidation, Good Roads.

The transportation, of course, is easier when the roads are good. It should be remembered, however, that if the roads are good enough for children to walk over they are passable also for wagons, and that in wet weather children in wagons will reach school with dry clothes and feet, while children who walk over wet and muddy roads would have to sit with wet feet all day, and, besides, will be tired before beginning school work. Roads of all kinds are traversed in Virginia—level, mountain, rocky, sand; macadam and red clay roads; yet two hundred wagons run successfully over them without breaking down during winter or summer. But, of course, good roads are a great asset and consolidation has fairly started a zeal for road building, for nothing stimulates the good-road craze like road travel. The rural mail courier likewise needs good roads, and so improvement of highways becomes a matter of daily conversation. If a school van gets stuck in the mud, the consciences of the farmers are smitten. With good roads the van runs "on time." Children rely on it passing their home at 8.15 a.m. and reaching school at 8.50 a.m. In fact good roads make punctuality possible. Good roads and consolidation move together though the condition of roads is only an incidental part of school transportation. Kentucky has excellent macadam roads and few consolidated schools, whereas Ohio, with many poor roads in some parts, has an excellent system of consolidated schools. Besides, if the roads are too bad for horses to travel on they certainly are too bad for children.



Eastwood Todd.
Champion Standard-bred stallion at London. Owned by T. D. Elliot & Son, Bolton.

In Manitoba the Public Schools' Act gives power to trustees of any consolidated school district to spend money to acquire, improve or make passable any road or roads requiring such action to properly transport children to school, and the Department of Education is authorized to make grants towards such expense if the municipality has refused or neglected to do the work.

Success and Popularity of Transportation.

The success of transportation is best seen in the regularity of attendance which is often better than in cities where good streets and sidewalks and short distances prevail. In Garfield School, Whitman County, Washington, the pupils who were transported five miles to school made 96.7 per cent. of attendance, while in the city school the percentage was 95. Both are remarkable records, but surely the transportation achievement is an extraordinary one. In Indiana the movement is so successful that already 1,963 school districts have been abandoned and centered in 665 consolidated schools, a gain of 239 consolidated schools in the last five years. In 1914 the State of Iowa gave a report of 64 transportation routes, mostly in the northwestern part of the state. This report from 64 drivers for 180 trips each represents a possible of 11,520 trips from 3 to 12 miles each which should have been made. Out of these 11,520 trips only four and one-half trips were missed during the year. Manitoba has a similar record. At some schools not a single trip was missed for several years. Punctuality is reduced to a fine art; regularity is no longer an astonishing thing. Children like the journeys and are anxious to go to school. Parents, who them-

selves had to walk to school, now see their children drive to school and are thankful for the convenience. Transportation is a success and is in the best interests of the children, which after all is the main thing to be considered.

Wherever a consolidated school is in operation in Manitoba there is no record of any desire to return to old conditions. Taxpayers and parents would refuse to go back. Those living in the shadow of the consolidated school are glad to see the larger number of children, and the greater competition and enthusiasm engendered. The teachers, too, have greater pleasure and encouragement in their work.

Proper appreciation of the advantages of transportation would soon render the old district schools a discarded and discredited system.

Nature's Diary

A. F. KLUGH, M. A.

One of the most characteristic sounds of autumn is the call of the Blue Jay. At no time of year is this species a particularly silent bird except when in the vicinity of its nest, but in the fall its vocal efforts are more noticeable than at any other time. Its usual note is a rather harsh scream, certainly not a musical note in itself, and pleasing only because of its association with golden autumn days of bygone years. It has, however, another note, a musical and well-modulated whistle, which I fancy is attributed by many to some entirely different species of bird. In addition to these two notes of its own it has a fairly extensive vocabulary which it has borrowed from other birds, as it is a mimic of no mean ability. Its rendition of the cry of the Red-shouldered Hawk, for instance, is so perfect as to often deceive the trained ornithologist.

The Blue Jay has an extensive range; from the Atlantic to the Prairies and from near the Hudson Bay to Texas. Throughout the greater part of this vast range the species is resident, being found both in summer and winter. In the extreme north it is a summer resident only, and I am inclined to think that in all

other localities in which the species is resident that the individuals are not, but that in any given territory the individuals which are present in summer migrate farther south in the fall, their place being taken by individuals from farther north. At any rate, in both spring and fall we frequently see bands of Blue Jays apparently migrating.

The nest of this species is built in trees and bushes, and is constructed of sticks, and lined with herbs, grasses and other soft material. The eggs, which are from four to five in number, are variable in color, usually being clay color with brown spots.

The economic status of the Blue Jay is a question which requires very careful discussion, as the wide range of its menu includes items which render it both beneficial and harmful. The main charges brought against it are that it destroys the eggs and young of other birds and that it eats corn, and it has been contended that the harm which it does in this way outweighs the

good it does by the consumption of injurious insects. In order to settle this question the U. S. Biological Survey carefully investigated the food-habits of this species, examining the contents of 292 stomachs, which were collected at all seasons of the year in 22 States, and Canada. This investigation showed that the food of the Blue Jay consists of 24.3 per cent. of animal matter and 75.7 per cent. of vegetable matter. The animal food is chiefly made up of insects, with a few spiders, myriapods, snails and small vertebrates such as fish, salamanders, tree-frogs, mice and birds. Because of the statements which have been made to the effect that eggs and young birds are an important item of the food of this species, everything was carefully examined which might by any possibility indicate that birds or eggs had been eaten, but remains of birds were found in only 2, and the shells of small birds' eggs in 3, of the 292 stomachs. It is of course possible for a bird to eat an egg without swallowing any portion of the shell, in which case the soft contents would soon disappear from the stomach, but in view of the fact that such substances as dead leaves, bits of plant stems, and rotten wood which are evidently swallowed accidentally with insects or other food, are constantly found in bird's stomachs, it does not seem probable that Blue Jays would discriminate against eggshells. To test this matter, four eggs of the House Sparrow were offered to a Jay in captivity. The bird at once seized the eggs and began to eat them, but when any piece of the shell, no matter how small, was dropped, it was at once picked up and swallowed, so that the shells with their membranes were entirely gone before the soft contents.

Insects are eaten in every month of the year, but

naturally only in small quantities during the winter. Insects form 44% of the total food in June, 46% in July and 66% in August. In June most of the insects taken are Beetles, among them being many injurious forms such as the June Beetle, Spotted Pelidnota, Click Beetles and Curculios, while in August most of the insect food of this species consists of Grasshoppers and Caterpillars. The vegetable food of this species consists of grain, mast and fruits. Of the grain, corn is the most important item, and in September it aggregates about 18% of the total food. Wheat, oats and buckwheat are rarely taken. Mast—acorns, beechnuts, chestnuts, etc.—makes up the largest part of the food, and aggregates more than 42% of the total food of the year. In October this makes up 64%, and in November 82%, of the total food. The fruit consists mainly of apples, blackberries, currants, mulberries, wild cherries, chokecherries, elderberries, wild grapes, service berries, blueberries and strawberries. The apples were taken in the winter and consisted of frozen ones left hanging on the trees. The only fruit found in the stomachs, which might have been cultivated consisted of currants, strawberries, blackberries and mulberries. Strawberries were found in three stomachs, currants in seven, mulberries in five and blackberries in twenty-two. Of the blackberries it is probable that most of those eaten were wild, so that the analysis shows that the Blue Jay is not an enemy of the horticulturist.

In the light of this careful investigation we are bound to believe that statements as to the amount of damage which the Blue Jay does in destroying eggs and young birds are decidedly exaggerated. It also shows that the Blue Jay gathers its fruit from nature's orchard and vineyard, not from man's; that corn is the only vegetable food taken by this species which causes any loss to the farmer and that here the damage is small. It shows, in fact, that the Blue Jay certainly does far more good than harm.

THE HORSE.

Uses Of Sulphur In Horse And Stock Treatment.

During recent months we have received at this office many enquires regarding the use of sulphur in keeping live stock healthy, and in the treatment of certain horse and live-stock troubles. We recently read in The Farmer and Stockbreeder an interesting article on this subject by an Old Country veterinarian, and we pass it on to our readers who are interested in this "old and useful remedy."

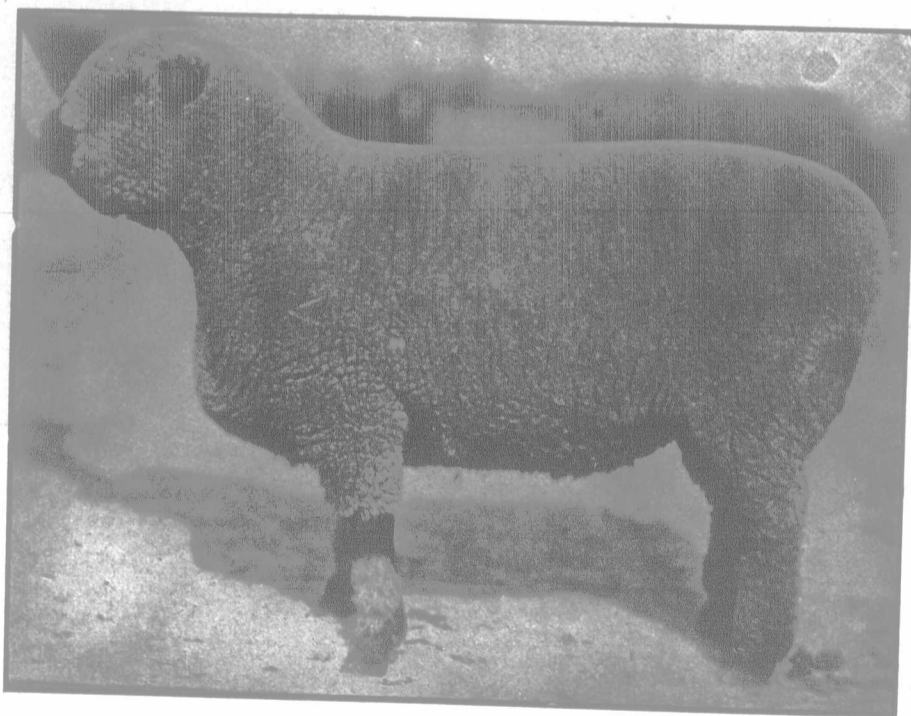
One of the oldest and most useful remedies in the world, and one of the few specifics, is sulphur. By the name of brimstone it is sold in brittle sticks, so brittle, indeed, as to break in the warm hand because so bad a conductor of heat. A roll of brimstone is often found in the dog's drinking water. A stone would do equally well for all that is dissolved and taken by the dog. The rolls are obtained from native sulphur, which is a volcanic product in the blue clay beds of Sicily and Italy. There are many other sources of sulphur, but these are the chief commercial centres from which it is obtained in a form that is most easily converted into the powder or "flowers" as we know it when re-sublimed and relatively pure, although traces of arsenic contaminate it more or less. This is why black sulphur, sulphur vivium, hosse sulphur, caballum, as it is variously called, is not to be preferred to the cleaner product. Black sulphur, which was originally preferred for pigs and as an alterative for other animals, may well have owed its virtue to the minute quantity of arsenic contained in it, but we have seen some recent samples of poisoning by it when recklessly employed under the impression that it is a perfectly harmless drug. The black portion which accumulates on the surface of the iron receiver in which sulphur is sublimed contains the arsenic practically of the whole sublimate, as arsenic volatilizes first. The black sulphur as usually sold by druggists is not the crust, discolored in the way above described, but has had a portion of animal charcoal added to it to produce the effect desired by the purchaser. This harmless form of adulteration may be almost desirable since there is no arsenic, and charcoal is a useful ant-acid and remedy for certain forms of indigestion. Sulphur is present in the bile and in albuminoids and in the order of plants known as the cruciferae, of which the brassica or cabbage tribe have the most abundant supply. The cabbage water which smells so unpleasantly is due to the sulphuretted hydrogen given off in the boiling.

Sulphur is insoluble in alcohol (cold) and in water, and is tasteless. Old folks who were dosed with "brimstone and treacle" in their childhood will find it difficult to believe this statement as to its tastelessness, but if they will put a dust of the powder on the tongue by itself they will find it so. Sulphur melts at a comparatively low heat (40 deg. Fahr.), and dissipates entirely with about twice that amount. Burning converts it into one of the most powerful and cheapest of aerial disinfectants. If buildings

of any kind can be closed and made practically airtight every living thing within will be destroyed by burning sulphur. The proportions needed are 50 ounces of sulphur to every thousand feet of air space. An old tin may be used as the container, placed on the floor, and wetted with methylated spirit in order to set it alight, and then the building can be closed. The fumes rise and search out every crack and crannie. This is cheaper than any form of liquid, and requires very little labor by way of preparation, although holes in old buildings are apt to be overlooked.

Sulphur is a specific for the itch. The itch of man corresponds to mange of quadrupeds. The acari which cause it are killed by contact with sulphur. Seed oils are the best vehicles for it; contact is necessary. It is because some mange parasites (the sarcoptes) make galleries under the skin and deposit their eggs at the ends of them, that a dressing will sometimes fail. Contact has not been made, and washing with soft soap or other lifters of the cuticle or surface skin may be necessary. It is always a good plan to wash with plain soap between the dressings in an obstinate case of mange. Sulphur is a slightly mechanical stimulant to the skin by itself, and its action varies in individuals, some skins favoring the formation of sulphides. The latter are developed by the addition of alkalies, and this is why many old recipes for mange dressings contain a portion of salt of tartar (carbonate, not bicarbonate of potash).

Sulphur given internally and in sufficient doses acts as an aperient, as a mechanical aperient chiefly, and most of it is passed out in the faeces. Some portion is decomposed into sulphided sulphurous acid and sulphuretted hydrogen. Probably the alterative action so well recognized when given in minute doses daily is due to this conversion. Proof of the gas is too evident in the bowel flatus, and is one of the chief reasons for its comparative disuse for children. As much sulphur as will lie upon a three-penny piece is a suitable dose in "condition" or alterative powders, and it is always difficult to get this point impressed upon the lay mind. Larger doses are only wasted. Alteratives should be given with as great regularity as food in order to produce their effects. The two-ounce dose of sulphur commonly prescribed with an ounce of nitre in a bran mash is only a mild laxative, and not an alterative, gradually affecting tissue change, and showing in the shining coat of the horse or beast.



A Shropshire Champion.

C. W. Gurney & Sons champion at Toronto and London, also champion American-bred ewe.

In giving the doses I would impress readers with the fact that sulphur can cause poisoning. Diarrhoea, inflammation of the mucus membrane, collapse, and death have resulted from giving a handful a day. Many amateurs give more than is prescribed by careful professional observers, and if they do not get bad results are misled into thinking that they knew better than the too cautious vet.

For the horse, as a laxative or mild aperient, one to four ounces; cattle, three to six ounces; sheep and pigs, half to one ounce. Finlay Dun gives the alterative dose as one-fourth of the above, and his dictum therefore entirely disagrees with what has been said in this article on alterative doses. The reader can choose which he will.

Some men find fault with the Agricultural College because certain of its graduates are failures on the farm. You cannot build a good wall from poor material; you cannot grow a good crop from bad seed on infertile soil; neither can an agricultural college make a good farmer out of some men. It does, however, help a great many to be better farmers. Remember, when prone to criticize, that no one man knows it all.

LIVE STOCK.

Croup in Calves

Young cattle, varying in age from a few weeks to a few months, are subject, especially those kept in low, damp pastures and more especially those pasturing near streams of water, and during the fall of the year, to a form of inflammation of the throat, characterized by the formation of a fibrinous exudate or false membrane, usually of a greyish-white color but sometimes brown or yellow, extending over the mucous membrane of the larynx and wind pipe, sometimes over the posterior portion of the mouth and in some cases the bronchial tubes are enlarged.

This condition is generally called croup. It differs from ordinary catarrhal laryngitis in a well-marked manner. In laryngitis there is always an increased secretion of mucus, which is discharged as quickly as it is formed. In croup an exudative process attends the inflammation of the larynx and wind-pipe, which induces the formation of false membranes which vary in thickness and consistency, some of which are quite thick and opaque, while others are quite thin and transparent so that the mucous membrane can be seen through them. Some are so firm in consistence that they can be detached for a considerable length without tearing, while others have little consistency. They vary in color from a dirty greyish-white to a yellow or yellowish-brown. If an animal be examined post-mortem, after the disease had existed for four or five days, the wind-pipe and larynx will be found to be lined for a considerable distance, in some cases only partially, while in others the whole circumference will be covered by the false membrane, forming a complete tube or cylinder.

Symptoms.—The first symptoms generally noticed are a hoarse cough and discharge of frothy saliva from the mouth, and of mucus from the nostrils; the animal is unthrifty, has some difficulty in swallowing; sometimes swellings appear just behind the jaw bone on one or both sides, also in the space between the jaw bones (the sub-maxillary space). These symptoms are usually succeeded by increased difficulty in breathing, respiration being accompanied by a crowing noise and by spasm of the muscles of the larynx, causing violent paroxysms. In other cases the spasmodic affection of the larynx and difficult breathing occur without

any premonitory symptoms. The pulse, hard and frequent at the commencement, becomes more frequent, feeble and indistinct as the disease advances; the fits of coughing grow more and more troublesome and violent paroxysms frequently occur, especially if the animal be subjected to any sudden exertion or excitement. In the course of two or three days flakes of false membrane are coughed up; expectoration becomes more profuse; the false membrane, which never becomes organized or vascular, is loosened and detached by a fluid poured from the mucous membrane, until it is finally separated and cast off. If the case progresses favorably this membrane is not again formed, the suppuration process terminating in the inflammatory action.

Treatment.—Of course preventive treatment should be observed. This consists in providing good shelter and sanitary quarters for the calves at night and during wet, cold weather, in addition to seeing that the lots in which they are kept are not damp. When the disease is noticed, if the symptoms are very alarming, the breathing very difficult, and the noise loud, there is immediate danger from suffocation and an operation known as Tracheotomy, which consists in inserting a tube into the larynx, and can be performed only by a veterinarian, is necessary. Hence the services of a veterinarian should be promptly procured. It is essential in every severe case that air be admitted early, as, should the operation be delayed, the animal will soon succumb to suffocation, or a condition of blood poisoning caused by an overloading of the blood with carbon and effete material. When the symptoms are not so severe, the nostrils should be steamed for several hours consecutively, by holding the head over a pot of steaming water or other device, and it is well to add to the water a little carbolic acid or iodine. A solution of nitrate of silver, one-half dram to one ounce of distilled water, should be applied directly to the diseased mucous membrane. This can be done by holding the patient's mouth open by the use of a speculum, a clevis, or other device, and applying the solution with a feather, care being taken to not apply it to a greater surface than that upon which its action is required. This should be repeated once or at most

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twice daily, so long as required. A little, say half a teaspoonful, of nitrate or chlorate of potassium should be given in drinking water and, if the patient be constipated, a little raw linseed, or castor oil should be given. If prostration be very marked, a stimulant,

as a tablespoonful of whiskey in a little cold water should be given every few hours. Any fluids given by the mouth must be very carefully administered, as, on account of the difficulty in swallowing, if they be given too rapidly some will pass down the windpipe and

produce fatal complications. It must not be forgotten that the patient must be kept in a warm, dry building, well ventilated and if the weather be cold the body should be clothed. **WHIPP.**

Breeding Shorthorns to Intensify Milk Production.

A panoramic view of the Shorthorn industry on the American continent discloses a turning point. The jingle of the range, while yet clamorous, is gradually diminishing, and the call to breed in sympathy with smaller holdings is ever increasing in its dimensions. Breeders have entered the dual-purpose enterprise recognizing a future in this strain. A few breeders in the eastern states, there are, who stood by the helm through adversity, and made milk records with Shorthorns long before the dual-purpose call was heeded by breeders at large. At first their endeavors passed almost unnoticed until the beef Shorthorn had become so beefy that the farmers on moderate sized farms revolted, some going into dairying and the remainder forming the inevitable support that has meant smoother sailing for these few breeders, who first directed their attention towards breeding for the dual-purpose qualities.

Among these was one Chas. Otis, a banker in Cleveland, Ohio, and a breeder of dual-purpose Shorthorns on his 500-acre farm, 18 miles out along the Lake Erie shore at Willowby, Ohio. While his father was a big steel manufacturer and himself now a banker well known in Cleveland, he has ever been interested in agriculture, the first nucleus of which was instilled into him when spending four years of his early life on a Colorado ranch. To the question, "Why did you start dual-purpose Shorthorn breeding?" he stated quite modestly, "Simply because after analysing the situation I felt I could contribute something to agriculture and yet make it in the end a paying proposition."

Those who know him state that he will stop discussing stocks and bonds with the least excuse to talk Shorthorns. There, on his farm, most beautifully located, and through which runs quite a large coulee bottomed with nutritious blue grass, he has had at one time as many as 128 head of pure-bred Shorthorns of dual-purpose breeding. They are not simply a collection of fairly good milking Shorthorns brought together within the past few years, but Shorthorns with consistent dual-purpose breeding for perhaps 30 or 40 years. They are direct descendants of the Innis & May and afterwards of May & Otis constructive endeavors. Two years ago the latter firm dissolved partnership and now Chas. Otis in Ohio and L. D. May in Pennsylvania are carrying on breeding operations from the foundation constructed in pioneer days. In the blood lines of the Otis herd is found one of the pioneer dual-purpose Shorthorn bulls, Joe Johnson, which individual to-day has over 75 descendants with records above 8,000 pounds in a year, and 27 with records over 10,000 pounds. His sire had a great reputation as a getter of heavy milkers. One of Joe Johnson's choicest granddaughters was Margaretta Clay which produced for eight years an average of 8,426 pounds. She was mated with the imported Duke Buttercup which combination gave Cyrus Clay, in 1895. Duke Buttercup was a great sire of record cows, having to his credit 10 daughters with records from 7,800 pounds to 10,000 pounds. This Cyrus Clay and another great son, General Clay, out of the 13,232-pound Mamie Clay, form the breeding which permeates and fairly saturates the present Otis herd at Willowby. It was the pioneer work of Innis, May and Otis which developed the milking propensities. These breeders were pioneers in keeping records, and owing to the difficulty of obtaining good outside blood bred in production, a great deal of line and in-breeding was performed. Some of the stock approached more nearly to the dairy type in their search for records, but now a saner view is evident and only moderate production is sought with retention of fair beef proclivities.

The foregoing serves to clarify the situation convincingly that the blood lines in the Otis herd are not miscellaneous but definite, that it is not a collection as the true meaning of the word indicates, but rather the result of constructive work to make it truly dual-purpose.

The herd header, Knight of the Glen, by General Clay, is a seven-year-old, and a half-brother to the world's record Shorthorn cow, Rose of Glenside, 18,075 pounds of milk, 735 pounds of butter. A side view shows dairy conformation. This is evident, particularly at his hind quarter and accentuated by his only moderate fleshing. A back view shows up more of the dual-purpose type, a moderately broad shoulder and square quarters. The impression given was that he leans to the dairy order which type is quite contrary to that which many Shorthorn breeders advocate. On mentioning this fact, Mr. Otis replied, "I think the best results are obtained by a bull inheriting milking strains being used on cows of good conformation. My experience has been that Shorthorns will inherit conformation more from the dam than the sire, but the sire must have had a good milking dam to produce milking heifers."

The young bulls, most of which were quite large, strong-boned and good-framed youngsters were grown on skimmed milk. In them the dairy type was not evident, but rather a leaning to the beef conformation. In the field were the breeding cows and heifers, some of these near the barn and others in the coulee pasture. The cows are large, deep-hearted types, but on the whole with much more variation than observed on the late J. J. Hill's farm at St. Paul. Some of them showed in a fairly good degree of fleshing, while others were

very much of the dairy order. There, grazing was the product of many years of consistent endeavor, 60 cows all with records over 8,000 pounds per year, and many of them with notable achievements to their credit. Invariably the cows much over 10,000 pounds were not what could be called dual-purpose in type, as they were in thinner condition, had sharper shoulders, more slender in the neck and were wedge shaped to quite a degree. Mr. Otis now realizes that records can be carried too far and is breeding for the 7,000 to 10,000 pound cow that has a large frame and is more compact, yet of that indescribable matronly type. The cow, Jewel, as shown in the photograph, very much approaches the type he is seeking to breed to. She is a large, deep-bodied individual and always in good fleshing order, yet her milk record is 10,887 and during the

heifers judiciously with a bull of the same family not near enough related to in-breed." "What work have you done to show that dual-purpose cows will produce good steers?" "We have to-day a bull calf out of a 11,000 pound cow which we have steered and are rearing for a show steer. He weighs over 500 pounds at five months old, which is as good as the beef breeders can do. We have also an excellent grade steer out of a grade dual-purpose cow to demonstrate the beef qualities of our bull as well as the milking propensities." "What is the difficulty met with in dual-purpose Shorthorn breeding?" "The difficulty is with the breeder being able to combine the milk qualities judiciously with the beef qualities, not fostering one too much to the detriment of the other."

After strolling throughout every nook and corner of his establishment, and discussing many phases of the subject not here given, the general impression is that there are many true dual-purpose types in the herd, but there are many not dual-purpose, also that there are many cows and heifers that are in fairly close sympathy with the ideal of the writer, with large capacity, deep-hearted and inclined towards beef conformation, and there are cows that appear too strenuously bred for milk production. Looking back into the pedigrees with generations of breeding for milk one finds the great producers intelligently line bred. There are also cows without these ancestral production blood lines. If a visitor should pick out the cows in the herd so line bred it would be found that they are those leaning



Part of the Otis Herd on Blue Grass.

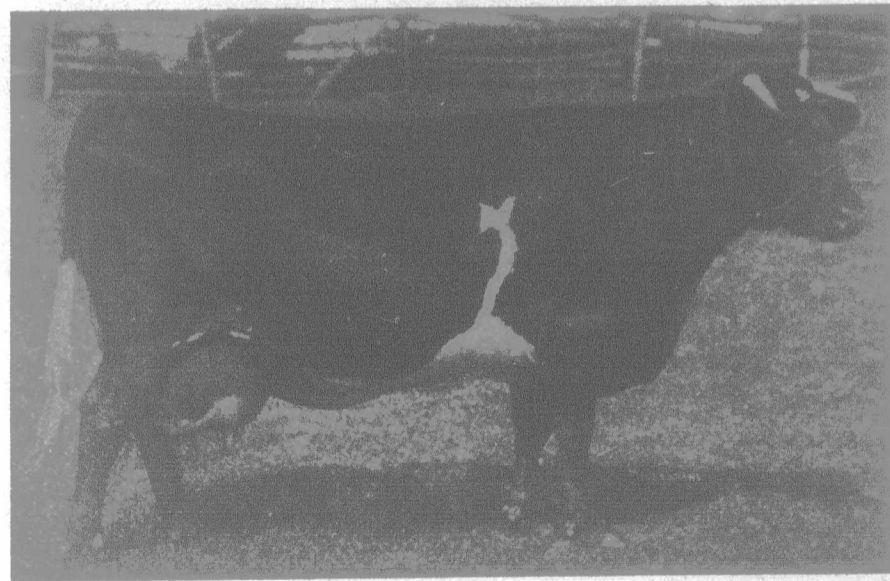
year she made her record she would have made good beef at any stage of her milking period. Another cow which is very much Jewel's equal is Braemar Beauty, a Canadian cow bred by James Brown, Norval, Ont., with a record over 9,000 pounds. There are many others of this type, some of which will be shown at the Chicago International this year.

After viewing the whole herd in this establishment, one of the best on the American continent and one when in partnership with L. D. May in 1913 and 1914 won eight grand championships, 25 firsts and 10 second prizes at Vermont, Syracuse and the National Dairy Show, the various difficulties in breeding, and the future of the dual-purpose breed were discussed. The answers to the following questions are from one who has had a wide experience with Shorthorns. "Do

towards the dairy type and which have approached more nearly the dairy Shorthorn not only in type, but in heavy production. Those of great dual-purpose appearance invariably are not backed so much by this Clay strain, the production of many generations. They quite often have an introduction of it but are not so intensely bred. The summary of this evidence is that too much emphasis was laid on production in the earlier breeding operations as a result of which the type changed in sympathy. The demand of the American public no doubt encouraged this tendency since the call was for larger milk yields without sufficient emphasis being given to the maintenance of a fairly good meat carcass. But now the fault is being rectified, the association of more of the beef type encouraged, and contentment with lower yields is being realized as necessary. Even yet the

American farmers seeking the dual-purpose cow are clamoring for records. They invariably ask, "What production has she got, what is the production of her dam and is her sire bred for production?" without giving heed to the more sane inquiry as to beef as well as her breeding for milk. Let not the Canadian farmers make this same mistake of seeking for more milk and more milk, and so sacrifice the beefing ability of the herd. Stockmen might as well from the first realize that more than milk is needed, that if the intention is to put steers on the market it must be something better than a dairy steer, and that a fair beefing tendency of every dual-purpose animal in the herd is desirable.

By the courtesy of Mr. Otis the opportunity was given to see the result of generations of line breeding or almost in-breeding without the introduction of new



Jewel, 10,887-lb. Cow, First Prize for Cows in Milk at the International, 1911. She is regarded as one of the best specimens in the herd, and combines both easy-keeping qualities and milk production.

you prefer the bull and cows uniform in conformation, being moderately between the beef and dairy type?" "It is hard to breed a uniform type, our ancestors have been at it before us for generations and the idea is that it is easier to get desired results with bulls leaning to the dairy type on big-framed, heavily-boned cows, neither of them being the opposite extremes." "Under what conditions is the dual-purpose suitable?" "Practically in all conditions, but more so when farmers have considerable roughage to feed and turn into milk and meat, no other breed will pay more money under these circumstances." "What brief advice would you give a beginner in the business?" "Don't expect to breed up a first-class herd in a year, but when you have found a bull that seems to suit your herd keep him and his heifers and use him for all he is worth. Don't let money tempt the heifers away from you, then mate his

blood. These few animals bred intensely in milk production with the blood concentrated and re-concentrated had not been ostracized from the farm, but clearly indicated that intensifying can be carried too far. They were constitutionless, sway-back, scrawny cows that one would call ideal scrubs. The thought permeates one that if such was the result of in-breeding, no wonder breeders throughout the world recognized that a herd, if line bred, needs an infusion of new blood from time to time in order to avoid possible disaster. While all the great breeders in founding breeds through pioneer days were staunch advocates, and in practice supported the idea of in-breeding, yet it was found necessary to incorporate new blood from time to time. This case of in-breeding on the Otis establishment is not to his discredit, but rather the living example of a few mistakes made

in his endeavors and by his predecessors. Any pedigree of almost any individual in the herd will show an attempt to breed in accordance with the known natural laws to make improvement in milking qualities, but these known laws are so meagre that one may readily confront forces indefinable.

Breeders while not altogether agreeing with some of Mr. Otis' ideas admire the staunch adherence of his individual conviction concerning the place of the dual-purpose and give credit for that which he and his predecessors have attained. In breeding for a dual-purpose animal, care must be taken not to sacrifice one quality in order to gain another.

Our Scottish Letter

EDITOR "THE FARMER'S ADVOCATE":

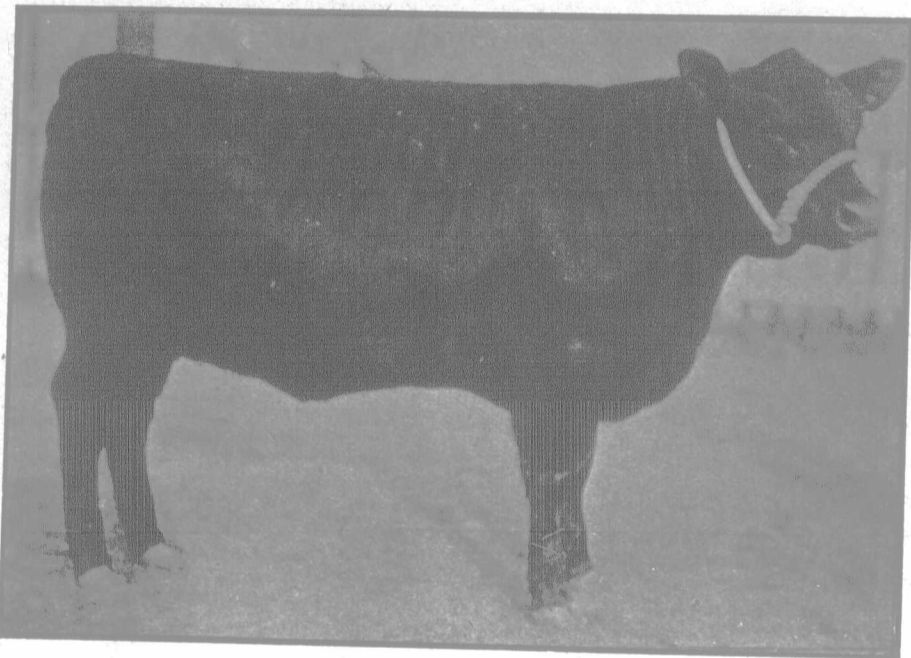
We have begun to organize British agriculture. At least we made a start this week in Glasgow. That vigorous individual, Mr. Hughes, from Australia, has wakened up the people of this country, and an effort is being made to get ready for an industrial conflict which everybody says is to take place after the War. For our own part the main thing has always seemed to us to be to finish the War. The end does not seem in sight, although the action of Roumania has certainly encouraged a buoyancy of spirit throughout the Entente and a corresponding depression among the Central Powers. It is, at any rate, difficult to see how Turkey can escape being crushed, and no one will be sorry should the crushing be of a complete and irretrievable character. Greece would seem to be moving in favor of co-operation with the Entente, and, in any case, the fate of Bulgaria would seem to be fixed. But what a heterogeneous crowd these Balkan nations or nationalities are! How they will ever weld together may baffle statesmanship. The big question will be, who is to get Constantinople? One rather trembles to think what may be when that question is raised at the conclusion of the War. All this however, is away from my text. We are organizing agriculture so that after the War this country may never again run the risks she has recently run of starvation. We have never been within sight of that because our Navy has kept the seas, and better still, has discovered means whereby the menace of the German submarine has been turned to the confusion of the Teuton. If, however, the German had been better equipped with submarines and less hampered by fear of compromising himself with neutrals, he might have put us into a fix, and given the people of these islands a taste of War, which, dreadful as the times are, they have so far escaped.

A great meeting was held in Glasgow this week to inaugurate a campaign for the setting of agriculture on a surer foundation than that on which it has rested during the past seventy years. When such questions are raised it is inevitable that there will be echoes of fiscal controversies. The effect of the Anti-Corn Law legislation of 1846 was far-reaching. In the opinion of many at the time it seemed to threaten destruction to Agriculture. But before many years had passed the Crimean War came, and Great Britain was then, as a nation, busily engaged in bolstering up the Turk. It was a costly business for us. This mess was hardly cleared up when the Indian Mutiny broke out, and only a few years after it had been settled the American War of Secession raged for four eventful years, 1861 to 1865. Then came the European conflicts which remodelled the map of Southern Europe, when Italy was born and Denmark was robbed of her fairest provinces by Prussia. No sooner had these calamities been in a sort of a way repaired and settlements of a kind achieved, than another dreadful War broke out—the Franco-Prussian War of 1870. It was short and sharp, and out of it the German Empire was born. Six years later there broke out the Russo-Turkish War, and in 1878 the Treaty of Berlin confirmed the fruits of that conflict by the creation of those Balkan kingdoms on which the eyes of Europe are at this moment again centered. While Europe and America were thus for about thirty years more or less cursed with the scourge of War and its baleful after effects, Great Britain was left comparatively free from such troubles. She reaped a large share of the profits which War brings to neutrals, and in the prosperity of these sixties and seventies her Agriculture shared. The anticipated effects of her fiscal policy of Free Imports were not experienced, and in spite of her open ports her Agriculture prospered greatly. But the eighties tried the premier industry in an unwonted degree, and while the country generally prospered its agriculture decayed. The nineties saw little improvement. By the opening of the new century the oversea competition had begun to spend itself. The virgin soils of the great American Continent had been denuded of their first fertility, and before the first decade of the twentieth century had expired there were indications that British Agriculture had passed its nadir and was gradually going upward. The cataclysm of August, 1914, has accelerated the upward movement, and at the present time, with the exception of dairy farming, all branches of agriculture are prosperous as they have not been for thirty years. The vastly enhanced cost of production in wages, imported foods, machinery, etc., has robbed the dairy farmer of any excess profits, and there is small danger of the Chancellor of the Exchequer making the nation rich by what he is likely to get out of the man who is a milk producer.

Now, however, a new phase of things has burst upon the view of the politician and statesman. He

has made the discovery, through the hard logic of War, that it is possible for national prosperity to be purchased at too high a price, when that price is a decadent Agriculture. True, it is a great matter that the people should have cheap food, but it is a greater matter that the land of the country should be kept under cultivation. Unless this be done people cannot live on the land. If people cannot live on the land the cities cannot be replenished with healthy citizens, and when War breaks out there is some risk of a famine in the island empire. The problem is how to maintain a prosperous agriculture, to grow the utmost possible from the soil, and thus to furnish the defenders of the country with food for man and beast. We are certainly up against it, and at all costs it is agreed that agricultural prosperity and national prosperity are synonyms.

Many questions connected with land holding call for adjustment. It is difficult for dwellers in a new country like Canada, where there is unlimited room for expansion, to appreciate the conditions of land tenure in a country like Great Britain. When settlers in the oversea dominions of Great Britain learn the power possessed by land owners in Great Britain they are amazed. In these sternly democratic Commonwealths and Dominions the interests of the people are paramount, and the will of the people brooks no impediment. Laws which do not make for the cultivation of the soil, which actually make it more profitable not to cultivate the soil, are simply swept away. In this country at the present time the Government is calling on farmers to produce more food, and yet is compelled to look on helplessly while thousands of sheep are being cleared off a good grazing because the proprietor insists on certain conditions



Pride of Larkin Farm 13th.

Junior and grand champion Aberdeen-Angus female at Toronto, and a winner at Ottawa. Owned by J. D. Larkin, Queenston.

being observed which are designed to preserve game. No flockmaster will take the farms with these restrictions, and, as a result we are to witness a desolation. The legislation of this country must do something to prevent such a misuse of land. Wherever the interests of sport and the interests of agriculture conflict, the interests of sport must be sacrificed. Generally, in the past, it has been the other way about. Agriculture has been subordinate to sport. We want to change all this. The principle must be recognized and acted on—that the farmer is the most important member of the community. His industry cannot be handicapped, and he must himself be thoroughly equipped for his life-work. The indications are that in spite of the dread perils, which we have just escaped, if we have escaped them, the reforms necessary to effect needed improvements in land legislation will have to be fought for inch by inch. A bill is at present before Parliament entitled the Acquisition of Land Bill. Its object is to prevent the vast expenditure which the nation has incurred in equipping land, being confiscated to the landowner at the conclusion of the War. The motive of the measure is wholly in the national interest, yet in its passage through the Houses of Parliament its provisions have been fought inch by inch—and any progress has been gained at the point of the bayonet. The omens are that the organization of Agriculture has not been entered upon a moment too soon, and those who have set the wheels in motion will require to work with a will, and exercise the wisdom of the serpent alongside the harmlessness of the dove.

Harvest has come much sooner than was anticipated, August proved a month of alternating sunshine and showers. Generally the weather was favorable and cereal crops benefited greatly. In some parts the weather was much too dry for the green crops, and on heavy land the lack of moisture was keenly felt. Still, withal, things have greatly improved, and there is now every prospect of a bountiful harvest. Potatoes will be a very disappointing crop. Roots of all kinds are in good bloom, and the Lammas floods, which came a month late, have greatly freshened the turnip break. These floods which came a week ago, have flattened the grain crops and made the work

for the self-binder extremely difficult. In some places the old-fashioned hook or scythe can alone make a decent job of cutting. Irish harvesters have been the unfailing source of autumn labor, but in the Lothians they have been plainly informed that their room will be more to be desired than their company. The feeling is that it is shameful to see able-bodied men coming to the places vacated by our own countrymen, either voluntarily or under the provisions of the Military Service Act.

Live stock interests of all kinds are in an extremely thriving way. British Holstein-Friesian cattle are increasingly in favor. The herd at Cradlehall, Inverness, was dispersed a few weeks ago, when 61 females were sold at an average price of £77 15s. 4d. Among these were 23 calves which made an average of £39 6s. 3d. apiece. At the Stirling market this week the highest price was made by a Holstein-Friesian bullock. The famous Shorthorn herd of the Right Honorable A. J. Balfour M. P., at Whittinghame, in East Lothian, was dispersed this week. Sixty-eight head, including a large number of calves made the fine average of £92 6s. 5d. The highest price was 370 guineas paid for a Goldie cow, and a heifer calf made 220 guineas. There was much buying on pedigree, and in some instances prices looked high. The lamb trade is in full swing, and the prices recorded for all breeds and crosses are a record. The good weather during the period of the sales undoubtedly helped trade. Lambs look very bedraggled on a pouring, wet day. In addition to that the weather has been such as has encouraged the improvement of the turnip crop, and this has reacted favorably on the demand for lambs, which, to a very large extent, are fed on turnips. At the Corston sale of Shropshire shearing rams, 41 head made an average of £11 6s. 1d. T. A. Buttar's flock is well known in Canada, and there is no better flock of Shropshires in Great Britain. The breed, however, is not extending in Scotland, both the Oxford Down and the Suffolk fairly outdistancing it in popular favor. The lamb from the Oxford ram and the half-bred ewe, that is a ewe got by a Border Leicester sire out of a Cheviot ewe, is much bigger than the lamb by the Shropshire sire out of the same kind of ewe. The Suffolk has fairly recovered ground in Scotland. As the sire of lean mutton this hornless blackfaced breed is unrivalled. They have the reputation of being somewhat slow feeders, and perhaps that may be true of the pure-bred animal, but when the Suffolk is mated with a Cheviot or half-bred ewe he fairly

scores in the good opinion of the butcher, to whom in the last resort, the appeal as to the value of breeds and crosses must be made. In the Clydesdale horse trade there is a great demand, and stallions are being hired ahead as far as the season of 1918. Whatever else may be depressed, the Clydesdale horse trade in the home market has been extremely brisk. There has been an unfortunately high death-rate among foals this year, joint-ill being a frequent cause.

SCOTLAND YET.

THE FARM.

A Little Trip.

BY PETER MCARTHUR.

This week I enjoyed a leisurely automobile trip that took me through two counties. As I was travelling with a man who has a due regard for the speed limits, and has no foolish notion about establishing records, I had a chance to see something of the country. The speedometer showed that we went at the rate of eighteen miles an hour, which was quite fast enough for a man who usually travels behind a horse that never shows signs of speed except when we are meeting an automobile. And even then her speed is not of the right kind, for she wants to go backwards or sideways instead of straight ahead. But, as I was saying, we travelled at a speed that enabled me to look about in comfort. The first thing that attracted my attention was the parched condition of the country. After the long drouth the fields were grey rather than green, and the pasture fields were of about the same color as the weather-beaten hay stacks. It was also noticeable that where fall wheat was sown only the lower parts of the fields were showing green. In many places the knolls and higher ground did not show a blade of growth. Most of the farmers in the district through which we passed had already threshed, but I didn't see one decent-sized straw stack. Of course, some of them may have put part of their straw back into the mows, but in other years I have usually seen

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good-sized stacks, so that this year's little jags of straw probably indicates a light crop. During the trip we saw only one milkman, and only in the district where we saw him were milk cans on the stands beside the gates. Still, it was interesting to see even one, for it is several years since I have been anywhere in the neighborhood of a cheese factory. All the people who are in the dairying business are shipping either their milk or their cream, and I am told that some of the villages do not get enough butter for home consumption, but are obliged to buy from distant creameries.

When we reached Forest, to attend the meeting to which we had been invited, we were taken over by an entertaining committee which took everyone at the meeting in autos and whirled them around to see the sights of the town and the surrounding country. I saw the canning factory long enough to see that it had a smoke stack, and as we whizzed past the flax mill I saw some bales of yellow stuff in a shed which I was told was flax in some stage of preparation. My recollections of this part of the trip are confined to a blurred sight of houses, trees, churches, etc., but as I have not yet learned to hang on to a seat and make observations while travelling at the rate of forty miles an hour I do not feel that I saw much of Forest. My next recollection is of stopping at a peach orchard where we all got out and ate peaches while admiring the trees that, in many cases, were so loaded that the ends of the branches rested on the ground. Then we whirled to another peach orchard and another peach orchard, and another peach orchard, until I thought

that there was nothing but peaches in the world. I had time to notice, however, that in some orchards much of the fruit was blackened by some kind of rust or ink spot; while in others it was clean and glowing with the true peach colors. On asking about this I was told that the clean orchards were the ones in which the spraying had been properly done, but, as I was unable to meet any of the men who had done the actual work of spraying, I didn't find out just what is meant by proper spraying. It was gratifying to learn that although they have such an excellent crop of peaches in the Lambton District there is no danger that any of it will be wasted, and that the orchardists are getting good prices for their fruit. While eating more and still more of the splendidly flavored peaches they raise in this district I heard rumors of a musk-melon farm in the neighborhood, and my mouth watered, but we must have passed it in one of our bursts of speed.

After our mad rush through the peach orchards we whizzed along a fine, gravelled road between prosperous looking farms until we finally were stopped by the waters of Lake Huron. Then for some miles we speeded on the packed sand at the edge of the water while the cold wind from the lake whistled around us. Then we swerved suddenly into a thick wood and presently came out on Kettle Point. This is the real show place of the district, for it has a rock formation which no scientist has satisfactorily explained. There is a bed of shale extending out into the lake, and as the waters wear it away they constantly uncover balls of rock that are as round as if they were turned,

and are of all sizes. I understand that because these stones resembled over-turned sugar kettles the early settlers gave the place the name of Kettle Point. Just how these round balls were formed is a matter of dispute. According to one theory, when the shale was soft, bubbles of gas were imprisoned in it, and afterwards the filtration of water filled these bubble spaces with limestone. This would account for the roundness of the formations. But I saw where one had been taken out of the shale and the layers of stone were bent back as if pushed by a hard substance, such as the stone that forms the kettles. It seems to me that gas would be likely to spread between the layers of shale instead of bending them and retaining its bubble form. One member of the party gave it as his opinion that the round stones had grown in the shale just like mushrooms, and I am not sure but his guess was just as good as any other. After we had seen all we wanted of the kettles we were whirled away through the country again and taken to a high place from which we got a glorious view of Lake Huron, and incidentally of Fruit Commissioner Johnson's farm, which lay on the flats beneath. Then we whirled wildly back to Forest and straight through it to still another peach farm where the fruit was all clean and well colored. Once more I was told that this was due to the fact that the spraying had been done right, but the man who had done the spraying was not about and I couldn't find out just how he managed the trick. After that we travelled forty miles in the dark, drowsily watching the spurt of light that travelled ahead of us. Then, as Mr. Pepys would say—"home and to bed."

Harvesting and Storing the Root Crop.

The past season has been a very unfavorable one for the root crop, consequently in many sections the task of harvesting the crop will be a light one this fall. However, every effort should be made to harvest what roots there are at the proper time and store them so that there will be the least possible waste. At the time when mangels should have been sown the rain was so incessant that the ground could not be properly prepared. Some farmers were successful in getting in a small acreage of this valuable crop, while others made no attempt at sowing mangels but increased the acreage of turnips. When it was time to sow turnips a dry spell had set in and the stand of crop is rather unsatisfactory. All through the summer, roots require a certain amount of moisture in order that they may make continuous growth. This was not forthcoming in sufficient quantity and harvest time finds the mangels very much below the average size. There is still time for turnips to increase in bulk. A vast difference is often noticed after the first cool weather sets in. Many leave the turnips in the field until the last of October, or even the first week in November. This may be all right in some districts, but taking the country over, turnip harvest commences shortly after the middle of October, if the weather is favorable. With suitable weather the yield of turnips may increase several hundred pounds per acre between now and the date of harvest. The nature of mangels is a little different from that of turnips. They are not so hardy, consequently may be injured by the first frost of the season. True, they will stand considerably lower temperature before being pulled than after, as the leaves protect the part above ground and the soil protects the lower part from freezing and possibly aids in withdrawing the frost from the upper part of the mangel should it happen to be slightly frozen. The time of harvesting always depends on the location, and nature of the season. Some years frosts occur two weeks earlier than others. However, it is risky delaying harvesting much after the first week in October.

Harvesting Mangels.

A common practice in taking up mangels and feeding beets is to pull them by hand, twist the tops off, and throw two or four rows together for convenience in loading. If the crown of the mangel is injured it bleeds more or less and rotting may commence from this injury. By twisting or jerking the tops off this injury is more or less avoided, but, pulling an acre or two of mangels is a very laborious task and likely to be hard on both hands and back. It usually takes a considerable wrench to remove the leaves from a heavily topped mangel. Some prefer to gather the leaves in the hand and with a quick jerk break them over the index finger. The weight of the mangel is sufficient to cause the breaking, if the leaves are held firmly in the hand. There is a knack in doing this; naturally some are more adept at it than others. Another method of removing the tops is to pull the mangels by hand and top with a knife. This is a very satisfactory method, but is considerably slower than the two previously mentioned. Mangels that are deep rooted are very difficult to pull, in fact, it is almost impossible to pull some varieties out of heavy clay soil. Running a plow along one side of the row, to the depth of five or six inches, considerably lightens the work. However, the deep-rooted varieties are not so commonly grown to-day as they were a few years ago. The globe type of mangels are heavy yielders and grow principally out of the ground, thus facilitating harvesting.

We have seen mangels topped with a hoe and then pulled with a V-shaped hook. This makes the work much easier on the back. True, the mangels bleed a little at the crown and the dry, dead leaves are not

removed as clean as when topped by hand. The mangels seem to keep all right in storage when topped in this manner. Having proven by experience that cutting the mangel injures it but little, some growers have resorted to handling the crop in much the same manner as they do turnips; that is, topping with a hoe and using the harrow to pull them from the ground. This system may be all right for the shallow-rooted varieties, but certainly will not work with those which grow more into the ground. Only what can be handled in the day should be pulled and topped, as it takes but a very light frost to injure the quality of the mangel when it is lying on the ground surface.

Turnips.

At one time the turnip crop was pulled by hand and topped with a knife, however, this practice has been generally abandoned and the custom of topping with a hoe and harrowing the roots out of the ground has been substituted. The turnip being firm is very little injured by the harrows, and cutting the top off appears to do no harm. Even when shipping turnips the general custom is to top with a hoe, harrow them out and then use a knife to trim them. As it takes several degrees of frost to injure this crop, it may be topped a day or two before being harrowed out. This gives the tops a chance to wilt somewhat, which makes the crop easier to handle. The common diamond-toothed harrow is quite satisfactory for removing the turnips from the ground, although some growers prefer to fasten a stick of timber to the front of the harrow. In either case the best work is done by making the team move lively. Two strokes of the harrow are necessary. Once over pulls out quite a few and loosens others; by coming back over the same place at a good gait very few roots will be left in the ground. If the ground is not too wet very little dirt will cling to the turnips. If they are a little muddy the dirt can usually be removed by knocking the turnips together as they are picket up.

There is a diversity of opinion as to whether loading by hand or loading with a fork is the quicker, some declaring they can load twice as quickly by hand. However, there are others who are adept at picking turnips with a three or four-tined fork. This latter method certainly is much easier than the former on the back. When only a narrow strip is cleared at a time on each side of the wagon, a man with a long-handled fork does not have to move or stoop very much. The turnips are easily dislodged by striking the fork on the side of the wagon box. The holes made by the fork tines evidently causes no injury.

Many root cellars are below the driveway and the roots can be shovelled directly from the wagon to the storage place. Where the shovel is used for unloading, a slatted chute is necessary to run the turnips over in order to keep as much dirt as possible from going into the cellar. When using a large fork, the chute is not so necessary although it is advisable to use it. Where the field is handy to the storage place, roots have been drawn in dump carts; the cart being driven directly over the trap-door to the cellar and dumped. This lessens the work of unloading, but the system would not be feasible if there was a long distance to draw, unless the cart was of extra large size. Manure spreaders have been used for hauling roots. The beater at the back of the spreader is not difficult to remove and the end board keeps the roots in the box. When unloading, the end board is raised and the revolving table is turned back with a hand crank. In this way a load can be put off in about a minute. Most spreaders are high enough to allow for a chute to be put at the back for the turnips to roll over, and so remove a large amount of the dirt which has a tendency to cling to the roots.

Carrots.

The acreage devoted to this crop is small. Carrots are more tedious to handle than the larger roots. However, they have fairly high feeding value and are prized more than the other roots by horsemen. As they grow into the ground rather than out of it, topping with the hoe and harrowing them out is not satisfactory. It is necessary to pull by hand and top with a knife. If they are firmly set in the ground the work may be facilitated by using the plow to loosen them. The storing of this crop is similar to that of the other root crops.

Storage Place for Roots.

The ideal in the keeping of roots is to have them as cool as possible without reaching the freezing point. There is more tendency for decay to set in if the storage place is too warm. In basement barns a portion of the stable is usually partitioned off for a root-house. The heat from the stock keeps the frost out, but in mild weather very often makes it too hot, and unless the roots are particularly sound there will be considerable waste, especially at the place where the roots are dropped. In fact, this place should be cleaned out soon after the crop is harvested. There is always a certain amount of leaves and dirt carried in with the roots; this starts heating, and subsequently rotting of the roots which may spread throughout the entire storage place. There is frequently more or less odor from turnips stored in a warm cellar. Some dairymen claim that it is this odor that taints the milk more than the cattle eating roots. A root cellar is a difficult place to ventilate, consequently the timbers above it are usually short-lived. For this reason the space underneath the approach to the barn is utilized by many farmers as a root cellar. Some build the walls of timber, but a more permanent structure is to make them of concrete with a concrete roof. If the roof is flat it is necessary to reinforce it with steel rails and wire, and if the span is wide it may be advisable to support it with posts. It is customary to build the concrete walls about twelve inches thick. Unless protected in some way there is danger of frost penetrating the walls and frosting the roots. It is usually advisable to either bank the outside with earth or else line the inside with lumber. If there is only a slat partition between the stable and the root cellar there will be little danger of frost. However, many prefer to have a solid wall with only a door leading to the cellar. Quite a number are building concrete root cellars entirely separate from the stable. It is customary to sink them in the ground a considerable distance and then cover them with earth so that they will be as near frost-proof as possible. While the roots keep satisfactorily stored in this manner, there is greater difficulty in filling, unless so arranged that the team can be driven over top. Unless a covered passageway leads from the cellar to the stable the labor of feeding is increased. The nearer the root cellar is to the place of feeding the better.

It frequently happens that a permanent root cellar is not of sufficient capacity to hold the crop. In this case pitting may be resorted to. Turnips keep very well in a pit that is frost proof and has a fair amount of ventilation. A fairly high, dry piece of land should be selected for the pit. About five feet is considered wide enough at the bottom and the turnips can be tapered to the centre, possibly five feet high. An ample covering of straw is laid on first and then a good thickness of earth is put on. The exact thickness depending on exposure and severeness of the winter weather. Care should be taken to put in a ventilator every ten or twelve feet. An ordinary field tile will serve the purpose. When winter sets in this can be filled with straw to keep the snow from blowing in. It

is advisable to examine the turnips in the pit occasionally. If they are too hot the ventilators should be left open for a while, but if there is a sign of frost the pit can be protected with stable manure. Many tons of pitted turnips are spoiled every year, through carelessness in this regard. Although turnips and mangels are about ninety per cent. water they have fairly high feeding value. There is something about them which keeps the animal system in good condition. Both crops entail considerable labor in the growing and harvesting of them, but they are considered by both stockmen and dairymen to be valuable crops to grow.

Make the Barnyard Clean

EDITOR "THE FARMER'S ADVOCATE":

Most barnyards, in spring and fall, are disgracefully dirty. We apologize for their condition every time a friend has to walk through their mire depths; but most of us make no serious effort to improve their condition. We just take it for granted that barnyards always will be dirty, even as they always have been. On our little farm, however, we are going to make a serious effort this fall to make the barnyard clean. Here is the plan we will follow. A man with whom I once worked for a season followed the same plan with excellent results, so I know that it is good.

Our first move will be to put eave troughs on the barn, and see that water from the roof is carried away from the yard; enough rain falls direct from the skies to make a yard muddy without concentrating what falls on the roof in the yard as well. What rain does fall in the yard is to be carried away through a system of underdrainage. Three-inch tile will be laid at intervals of ten feet, the laterals connecting with a four-inch main which will lead directly into an open water course in the adjoining meadow. On top of these we will place a little loose gravel to protect the tile, and then we will fill the yard to the level desired with field stone. With us, at least, this stoning will represent no extra work, as a gravelly field adjoining the buildings is to be stoned this fall and the stones will have to be carted off in any case. Then we will top off the stones with gravel. This will give us ideal drainage, and the water problem, and with it the mud problem, will be almost solved.

But there must be no litter around the yard to hold moisture. A barnyard with a strawstack and several months' supply of manure around it cannot be kept clean no matter how ideal the drainage may be. Manure from our stables is to be carried to the fields at short, regular intervals all through the winter, thus conserving its fertilizing value and keeping the yard clean.

An idea that is really good is the cement platform around the stable door. I have seen these platforms, eight or ten feet square, on several dairy farms in Western Ontario. They seem to act like door-mats, and the amount of dirt that is left on the platform instead of being carried into the stable is sure to be gratifying to the careful dairy farmer. Such a combination of stone, gravel and concrete in barnyard construction is the next best thing to the concrete barnyard. The latter is too expensive under my conditions, but in a clay country with gravel and stone unobtainable nearby, the concrete floor for the whole yard may be cheaper in the end.

The final job in our barnyard will be a concrete walk from the kitchen to the stable door. The women folk have specially requested this; a request based on long experience with farm barnyards.
Halton Co., Ont. F. E. E.

"Sandy" Goes To The Fair.

EDITOR "THE FARMER'S ADVOCATE":

Na doot ye'll think I'm gettin' ower auld tae be rinnin' roond tae the fairs an' sic like places, but I wis up tae Ottawa the ither day an' though I'll no' deny I wis a wee bit tired when I got hame again, still I stood it weel eneuch for a chap o' my age. They hae places noo where ye can sit doon whiles an' hear the gramophone sing "Annie Laurie" or onything else ye like tae call for, an' it's no a bad kind o' advertisin' I can tell ye. Ye feel as though auld Tommy Edison wis daein' ye a favor. He gies ye a chair an' sings ye a song an' ye mak' up yer mind that gin the time ever comes when ye can pit a few dollars in his way ye'll no' be slow about daein' it.

But ye'll be wantin' tae ken something about oof Central Canada Exhibition, as we ca' it, sae I mustna' be wastin' yer time wi' ma havers. Takin' everything intae consideration it wis no' a bad Fair. In fact it micht easily hae been worse, and ony man lookin' for pleasure or information had a chance tae get what he wis aifter. Ane o' the first things tae tak' his eye wad be the Pure Food Exhibit. Gin the auld Kaiser could hae juist got a look in on that he wad be for throwin' up his hands richt awa, for he'd ken that ony country that could tak' samples o' some o' their products an' mak' an exhibit like that, would tak' about a hundred years o' hammerin' tae show the first signs o' a dent, an maybe no' then. It wis grand, no mistak'. We'll no' be on short rations for a while yet, I'm thinkin'.

The next thing I cam' tae in my wanderin' was the building they hae pit up for a' kinds o' machinery. There wis everything there frae a plow tae a threshing machine. Gin they keep on at the rate they're goin' in inventin' things, the farmer o' twenty years frae noo will need to hae some heid for machines. There's no' muckle left tae be done by hand an' foot power noo, but spankin' the bairns an' kickin' oot agents.

The next thing I ran intae was the automobile show. Ten years back this wad attract mair attention than it does the noo, for ye can stand at ony street corner these days an' see automobiles o' every make an' style till ye're tired lookin'. A' the same it's interestin' tae see a' these fancy rigs for gettin' aboot, an' then think o' the auld lumber-waggons that oor fathers an' grandfathers used tae gang tae church in, when they didna' walk. The world is movin' a'richt, especially since it has taken tae buyin' motor-cars. Weel, aifter I'd taken in these things an' a few mair o' less importance, I says tae Hugh MacDonald wha wis with me, "Hughie," says I, "lets gang roond tae the stables; these things are a' richt in their way, but I'm wantin' tae see the Holsteins, an' maybe we'll hae time tae tak' a look at some o' the ither stock that's there while we're at it." As it turned oot we had plenty o' time, for the Holsteins were no' takin' up as much o' the stable room as usual this year. Na doot the shortage o' help is the reason for this, for we ken there's ony amount o' guid stock in the country, but the fact remains that it wasna' at Ottawa this year, an' I think it's a great peety. There never wis a time when the people o'

the country were mair in need o' education along the lines o' better stock-breedin' than they are at present. Gin the farmers themselves dinna' tak' an interest in their business that will mak' it show signs o' progress frae year tae year they canna' expect outsiders tae become interested, nor tae stap the rush frae the country tae the city that is gain' on at present. There's no shortage o' men in Ottawa, I notice, but they dinna' look as though they wad tak' vera kindly tae feedin' coos an' cleanin' stables an' that sort o' thing. But maybe when the war is over we'll get a' the men we can mak' use of and oor Fairs will be able tae mak' a better showing in live stock an' the ither things that these exhibitions were made for in the first place.

The Ayrshires were oot in greater numbers than ony ither breed o' cattle and there were monny guid animals in the lot, I'm bound tae say. But it wad mak' ye sorry tae see some o' the wee calves. They were not ower big in the first place ye ken, bein' Ayrshires, an' a week in Ottawa had juist aboot pit a feenish on them. The city seems tae be a poor place for babies o' ony kind. One thing I want tae say richt here an' that is that I think a' the exhibitors o' live stock should be permitted tae tak' the animals oot o' the stables an' ship them hame on Friday night. As it is noo they hae tae leave them there till Saturday evening an' then it's ower later tae get them hame an' they hae tae wait ower till Monday. The easier things are made for exhibitors the mair likely it is that we'll hae a guid show frae year tae year. Weel there wis monny ither things tae see an' sae aifter inspectin' the pigs an' horses an' sheep, Hughie an' I went ower tae the grand stand. I willna' be botherin' ye wi' a' we saw here, as na doot ye've seen plenty o' this tight-rope performin' an' loopin' the loop an' a' that sort o' business before noo. But I must say that some o' the things that these chaps dae wi' their bicycles, an' hoops, an' ropes, are eneuch tae mak' ye think that there's naething impossible on this airth tae the mon wha gives a' his time an' attention tae the accomplishment o' ony one thing. I heard a civil engineer say one time that he would undertake ony job on land or water that ye liked tae name, providin' there wis eneuch money behind it. An' aifter seein' what perseverance in some lines will dae, I wouldna' want tae say that he was gain' ower far in his statement. But talkin' aboot grand stand attractions it's the horses that will tak' the crowds attention frae everything else. The races an' hurdle-jumping were a' richt gin ye liked that sort o' thing, an' I'm thinkin' that ony healthy person, whatever their ideas aboot racin' may be, has a conseederable admiration for a guid horse, an' for the one that can rin an' jump as well as for the one that draws the plow. A' these trials o' skill an' endurance hae a guid lesson in them for us. It's only when men start bettin' an' tryin' tae get something for naething oot o' the business that they spoil everything an' gie it a reputation that it wouldna' otherwise deserve. Weel, aifter the races were ower Hughie an' I began tae think o' gettin' back hame an' sae we boarded the first car that looked as though it wis headed for the Central Station. It's an unco' hard day's wark for an auld chap, gangin' tae the city an' takin' in a Fair like yon, but ye recover through time an' gin ye've kept yer eyes open an' yer mouth shut ye'll hae learned a guid deal an' taken no conseederable damage. Ottawa is a fine clean toon onyway, an' gives ye good value for yer money. I'll say that for her.

SANDY FRASER.

Canada's Young Farmers and Future Leaders.

A High School Student On The Farm.

EDITOR "THE FARMER'S ADVOCATE":

I wonder if there is space in your columns for a few remarks from a high school student who has obtained his examination by working on a farm during the past summer season. While not sufficiently experienced in farming to comment on its technicalities, I would like to record some of the observations I have made during my three months' stay in the country, and perhaps influence the minds of some chaps who are dissatisfied with country life and wish to enter on business or professional careers.

At the present time the slogan of parents in the country seems to be, "Send the smart ones to school and let the dull ones stay at home and work the farm and be the support of our old age." Such a policy seems to me to threaten the very background of Canada's greatness. When we glance over the list of Canada's illustrious citizens we are proud that her greatest ministers, her greatest lawyers, her greatest doctors, her greatest statesmen have been born and raised on Nature's home, the farm. Such a fact thrills me with pride that I, too, spent my childhood days among rustic surroundings. But it is my opinion, that had the splendid brain power of farmers' sons and daughters, who have arisen to political or professional greatness, been expended on agricultural problems, their names would hold as high a place of honor in the future, and Canada would not be confronted with the problems of the high cost of living, immigration, the congestion of her cities, and as a result of the last named, the criminal tendency of city-raised children.

Speaking about great men, I wonder why we do not hear more about great farmers. We have great

engineers, great soldiers, great theologians, great writers, but seemingly no great farmers. According to the standards by which we usually measure greatness, a great man must be constantly in the public eye and must write treatises on his profession. But why do not farmers get on the public platform, and write books dealing with the secrets of success in farming? The answer is that while the majority of farmers are well supplied with first hand, practical knowledge of their profession, they are sensitive of betraying their lack of style and diction by attempting speech-making or writing treatises on agricultural subjects. The result is that very little is written on a subject about which volumes might be penned. In order to face an audience and express yourself forcibly and clearly, or to write what you know on any subject in clear and concise English, you do not have to understand Latin, Greek, French or German, or the principles of chemistry, biology and mineralogy. Therefore, why does not the government or Department of Education make provision for the establishment of winter classes where the young men and women of the rural communities could be taught the art of debating and addressing audiences on any subject with which they are familiar. This, combined with his public school training and some general reading ought to be enough education for any young man who desires to create an atmosphere of enthusiasm for farming among the other young men in his community. Such a young man, I say, is doing as much for the interests of Canada as is the holder of a Rhodes' scholarship.

Several times during the summer I heard it said, "How I wish I had taken the opportunity my father gave me of getting an education," or words to that effect. Yet many of the persons whom I have heard talking like that have splendid farms, and if they would only get as enthusiastic over their improvement,

as they do in making money with as little expenditure of time and labor as possible, they might easily become known far and wide as the leaders of the country in some branch of agriculture. The trouble with a great many farmers I know is that the attainment of money is their sole ambition. They don't care whether their cows are lean or fat so long as the milk cheques register substantial profits. They don't care how their horses look so long as they do the work with eating as little hay and oats as possible. This spirit is being handed down to their sons and I believe that we may largely attribute the unpopularity and so-called drudgery of farming to this fact.

The evening before I left the farm to start back to school, I did some serious thinking. I was returning from the old pasture field where I had just closed in the cows for the night. The sun had sunk in a sea of crimson; high above me in the heavens the stars were slipping into their allotted places, the moon in his second quarter was bathing the meadows and woods around me in a pure, white light, not a leaf was stirring, the birds had long since gone to rest. The silence and beauty of the scene filled my mind with a sense of peace. As I looked back over my three months' stay on the farm and recalled the good times that I had, and the healthy exercise that the work there had given me, a genuine reluctance to leave took possession of me. I thought of a young fellow of my acquaintance who was about to enter high school life for the first time. His father owns a large farm and needs all the help that his only son can give him, but wishes him to get an education. "Surely," I thought, "he doesn't have to go to a city to find happiness and opportunity." The country is the place where, "a man's a man for a' that;" it is the place where the element of gilded society, which I find is an inseparable companion to town life, need find no entrance; above all, it is the

place, where in my estimation, the best opportunities are given a young man for doing his bit in building the foundations of agricultural institutions, upon which Canada's future greatness must rest. STUDENT.

Keep the Furrow Straight.

Really good plowing is so uncommon to-day that a fairly well-plowed field attracts the attention of the passer-by. Judging from appearances of the average plowed field, plowmen take very little pride in their work. To get the field blackened is the principal aim. In this age of rush and scarcity of help there may be some excuse for hurrying over the work as quickly as possible, but, what effect has the slipshod method of plowing on the man who does the work, and on the future crops? Decreased yields of crops are, in some cases, directly traceable to poor plowing. The cut-and-cover system, which some follow, cannot possibly leave the soil in as good condition for the next season's crop as cutting the furrow clean and properly turning it. The old system of setting the furrow on edge has largely given place to turning it flat, and no appreciable difference in crop production is noticed. Poor plowing is responsible for some noxious weeds gaining in number. If the roots of even a few plants are allowed to slip around the plowshare they may grow and propagate, thus becoming the means of seeding down a considerable area. Wild grass is another enemy of the crops that requires turning completely under if it is to be killed. This necessitates the use of a jointer or skimmer on the plow in order to turn the edge of the furrow under. If this were more generally used there would be less danger of grass getting a start. True, its use would

increase the draft on the horses, but more satisfactory work would be done. When plowing down long grass, clover or weeds it is a good plan to attach a chain to the plow in such a way as to pull all growth into the furrow. Only recently a young farmer was seen plowing a field on which was a luxuriant growth of weeds. Neither skimmer nor chain was being used, and, consequently, from a distance, the field looked more like a meadow than plowed ground. When questioned regarding the advisability of leaving the field that way, he remarked: "I know I should use a chain on the plow but I haven't one handy; maybe I will get one from my brother to-night." One-and-one-half acres of poor plowing in a field is an eyesore and possibly a seed-bed of noxious weeds, from which seeds will be carried to other parts of the farm. An endeavor should be made to turn under all growths and avoid, as far as possible, leaving holes in the field. If the field is stony this is no easy task, especially for a young man just learning to plow. There is some excuse for a beginner doing rather poor work, but there is no excuse for the man who has been plowing for several years. From the very commencement there should be gradual improvement. If the plow strikes a stone it should be pulled back and a fresh start made. The writer well remembers the first field he plowed. Not being heavy enough to pull the plow back, the horses were turned around and an endeavor made to leave as few holes as possible. True, this takes time, but it is worth it. If a man does not try to do good work when commencing to plow, the habit of carelessness gradually grows on him, and he never becomes a good plowman. When striking out a field it is well to first turn a furrow out each way and then turn it back. This gets over the difficulty of having a high centre and the ground is all

cut. Too often the centre of the ridges are not cut, and little else but grass and weeds grow up the following season.

On the majority of farms, plowing is the young man's job. To some the work gets very monotonous, while others take a delight in following the plow day after day and ever trying to improve on the straightness and neatness of the furrow. Plowing a straight furrow gives as much satisfaction to some men as painting a picture does to the artist, but it is feared that too many tillers of the soil do not look upon their labors as a work of art. The man who is careless in his plowing is likely to be careless with every task he puts his hand to.

Within the past year or two plowing matches have been revived. Evidently the need was felt for training better plowmen, and results so far have been gratifying. A splendid feature about them are the classes for boys and young men. They have an opportunity of showing to spectators the kind of work they can do. The work that is done in competition must of necessity be duplicated at home, for no man can become an expert plowman in one day. It would be a good thing if more of the young men made themselves eligible to enter these competitions. The only way to do it is to practice at home. Straight, neat work can be done with the double plow, as well as with the single-furrow plow. It is a matter of handling the horses carefully and properly adjusting the plow. Better plowing, we believe, would have a tendency to improve the crops. It should also be borne in mind that the way the plowing is done is an indication of how all other work undertaken will be done. There should be scores of young men in competition at every plowing match. To compete favorably, the home field must be the training ground.

Automobiles, Farm Machinery and Farm Motors.

The Story of Spring Suspension.

There is not a farmer in the country who is not familiar with the effect that ruts, bumps and uneven spots have upon a buggy or wagon that is being driven over the average country road, and so it seems unnecessary for us to state that when hard-tired, horse-driven vehicles strike any obstacle, the force of the concussion is taken up immediately, when the rig has come out of or over any place not perfectly level, the entire effect is past and gone. This is not true, however, of automobiles, for their springs are built in compensation with pneumatic tires in order that the jolt may not be communicated at once, but rather spread over an appreciable distance. Before going any farther, it might be well to state that many uncomfortable jars have been given the passengers of an automobile by not pondering upon this. We must remember that a motor car deals and receives a far greater blow. We must bear in mind that a machine twice as heavy as a carriage and travelling twice as fast, strikes an object or depression with four times as much power and destruction. If you should drive your motor fifty miles an hour, or five times as fast as trotting a horse, the jolt, you can expect to receive, upon hitting any obstacle, will be twenty-five times as hard as one obtained by an old-style vehicle. This ratio, of course, is reduced when we consider that the pneumatic tires bring a large measure of ease, and that the different types of springs tend to reduce forward and side action tremendously. Manufacturers have a number of points brought before them in determining just what springs should be placed upon their cars. It can be safely stated that very flexible, easy-moving springs take small obstructions easily, and large ones without a great deal of trouble. Furthermore, it is also an established fact that the subdivision makes it possible to absorb the unevenness of the road by spreading the back action over more space than is possible by employing solid material. A very popular cheap car employs a cross spring, which, while not as efficient as it might be, is still durable and gives fairly satisfactory service. Other types are the full elliptic, three-quarter elliptic and semi-elliptic. Of the last three mentioned the first and second are doubtless easier upon the passengers, but the third has advantages in the matter of installation which seem to compensate for any loss of comfort. It can be stated in favor of the elliptic type that it takes far less space along the side of the frame and gives easier starting and stopping facilities. The advocates of the semi-elliptic arrangement maintain that their situation and clips on the axle are so arranged that the spring leaves are not twisted, and only one of the two wheels of a pair is projected upwards.

There is a new type of suspension that seems to be meeting with a great deal of favor. It has been named cantilever. The idea is to combine a number of leaves of different lengths. The preference seems to be for thick leaves, but there are car models with thin ones. Back of this construction is an idea producing great flexibility. Garage men will tell you that cantilever takes up a jolt and instead of communicating it immediately to those riding in the car, spreads the impact a long distance.

Front springs are uniformly shorter and stiffer than rear springs, because reliable steering is always

essential for safety. Then, too, a car body must be prevented from pitching forward disagreeably when a short stop is made or upon striking the base of a hill. In little roadsters, of certain types, you will find it an advantage to carry a bag of sand or a piece of heavy material under the deck at the rear, at times when you are using your car alone. If three passengers are riding, the action of the springs will be as comfortable as the manufacturer intended, with seven-passenger cars, and, in some cases, with five-passenger types, shock absorbers can be employed successfully. Where only the front seat is being used on a long journey some owners have found it wise to employ straps. Let us close this article by stating that cars with maximum riding qualities are those possessing the most harmonious relations between springs and tires. If the former are very flexible, the latter can be inflated harder and will last longer, but if the springs are stiff and rather unyielding, less air should be used, although by following this your mileage for the casing may be somewhat reduced. You should remember that each spring works co-operatively with the other three, and that when they are in complete unison the best results are being achieved. See that the body of your automobile is perfectly level under all conditions, because if one corner shows a tendency to sag you cannot provide yourself and your guests with that measure of ease which is so much desired. Constant inspection of the springs should be made in order that the least crack or break in any one of the leaves may be immediately remedied. You may give your car a heavy impact to-day and fracture one of the leaves without immediately noticing any inconvenience, but sooner or later this weakness will communicate itself to the balance of the spring, and you may find infinite trouble in reaching a destination. Always look well at the clips, for looseness frequently results in accidents of a minor nature. AUTO.

Farm Implements May Be Scarce and High

Farmers are vitally interested in the difficulties which now are confronting the manufactures of farm equipment lines. The most serious of these is a shortage of raw materials. Every steel mill in the country is congested with orders, due to the heavy and unprecedented foreign demand for steel products, making deliveries in the domestic market a very much delayed and uncertain matter. Uncertainty as to the course of future prices also is complicating the situation, since the implement manufacturers find it impossible to deal with the steel men on contract as always they have been enabled to do in the past. So serious is the actual shortage in materials and so delayed and uncertain are deliveries of what can be procured that it is feared some of the larger factories may be compelled to shut down in the near future. It now is practically certain there will be a marked shortage of finished machines to take care of a demand which this year had returned to normal proportions after the depression which had characterized it for the last two years.

Inability to command needed transportation facilities is another factor of troublesome proportions. The congestion of freight in the east, due also to the foreign demand for goods of all descriptions, tying up the

rolling stock of the railroads in eastern terminal yards is appalling, and in some sections of the country it is almost impossible to get cars. This applies alike and affects alike shipments of raw materials to the factories and shipments of the finished products from the factories to the retail dealers. The latter ought to have, at this season of the year, complete stocks of tillage tools in their warehouses and on their sample floors, but many of them have been unable to get their orders through.

Still another factor which adds complications to an already unsatisfactory situation is the great advances there have been in the prices for raw materials. Already in consequence of these, most implement manufacturers have advanced their prices to the dealer, and still further advances are imminent. It is certain that implements are to be scarce and high this year, and farmers who are contemplating additions to their equipment will do well to buy as early as possible.

As an indication of what some of the advances already have been on raw materials, the following table, compiled and published by one of the leading farm equipment manufacturers, is offered. The percentages show the advance in cost of raw materials above the prices which the manufacturers were compelled to pay in 1916:

Table with 2 columns: Item and Per Cent. Items include Pig iron, No. 2 foundry (60%), Soft steel bars, angles, channels and other shapes (105%), Steel tank plate (113%), Steel sheets (100%), Steel sheets, galvanized (70%), Iron bars (100%), Wire nails (46 2/3%), Foundry coke (66 2/3%), Crude oil (93%), Linseed oil (30%), Naphtha or benzine in C. L. (100%), White and red lead (36%), Leather butts for belting (37%), Bolts, springs, screws, nuts, washers and like material (35 to 60%), Drills, cutters and other tools made of high speed tool steel (200%), Lumber of all kinds (10 to 20%), Paints of all kinds (10 to 50%).

-Farm Engineering.

The Auto Trailer.

One of the newest and most practical farming utilities which is coming into general use this fall is the auto trailer. The auto trailer fills a distinct function for the farmer who has hauling problems to solve. While the motor car has simplified his carrying problems, the trailer is a step farther in automobile development which bids fair to effect new and valuable economies in farming operations. The auto trailer exhibits at the fall fairs and exhibitions are worthy of special examination this year.

A recent issue of the Michigan Farmer published an article from which the following is quoted:

"On Tuesday of this week, we saw a young farmer marketing 3,400 lbs. of corn with his pleasure car and a trailer. He carried 2,700 lbs. of the weight in the trailer and the other 700 lbs. in the car. It was 16 miles to market and he made the trip in one hour.

With a team, he would have spent at least 10 hours in marketing this load; with this equipment, he was back home inside of 4 hours from the time he started, fully two hours of which time was spent at the market. Viewed from whatever angle, this young man's method of marketing is superior to the old system of his father's in which horses were used.

"If the young farmer could afford a pleasure car without making use of it in marketing his product, he can certainly make the investment a valuable one when the car is used for both a pleasure vehicle and a means of carrying produce to town."

THE DAIRY.

Why the Price of Milk is Low.

EDITOR "THE FARMER'S ADVOCATE":

Your Editorial headed "The Consumer, Producer, and the Price of Milk," in September 7th issue must have struck a responsive chord in the breasts of many readers. The ultimate consumer, as you say, is a peculiar personage. He complains incessantly about the high cost of living, and the money outlay for everything else. The farmer complains also, and certainly with good reason, though he really doesn't deserve the same patience and sympathy as the consumer does, for he is in a position to protect himself by means of co-operation, and some day, when he has endured enough punishment for his detachment from his fellows, he will doubtless come to it, as farmers came to it in Denmark and other countries; but strange to say, in their case also, not until they were practically driven to it by force of hard circumstances.

It seems strange, on first thought, that the urban dweller should pay an advanced price on a manufactured product without squealing, when he howls like thunder if milk is raised a cent a quart. To your humble servant, who has been through the various stages of modern city newspaper production, it is really not so very strange after all. I blame the city newspapers very largely for the wrong slant which the dweller in towns and cities gets to his point of view about farming and the farmer's business. Nine times in ten it is the kiddiest of the kid reporters whose assignments include the "doing" of the markets, and the reporting of farmers' meetings. The kid reporter, usually a town boy, knowing nothing of farm life or the problems of farm production, is in no position to intelligently size up and report upon those subjects. He is a mere adolescent onlooker at something he knows nothing about, as you or I might watch a captain bring a huge freighter alongside a wharf, with never a bump and scarcely a grazing of timbers—it looks all so easy! The kid reporter is not supposed to be a whale on accuracy, and he soon absorbs the idea that to be a successful reporter consists in seizing hold of catchy points and making readable "stories" out of them. To those trained on lines of fairness and accuracy in reporting it always seems regrettable that a "report" should be spoken of in newspaper offices as a "story," and, sooth to say, too often treated as such.

The boy reporter having done his part hands it to the city editor, the height of whose salary on many of our larger newspapers, depends on his ability to write catchy headings, which means the picking out of telling features and setting them forth in brief striking phrases. Sometimes they convey the substance of the article correctly, sometimes they are irrelevant, often accuracy is sacrificed in order to be catchy or sensational. Modern daily newspaper proprietors don't like "tame" headlines, and the tendency is growing. The most distinguished of Canada's editors, who now wears a knighthood, once told a newspaper friend of mine that if he ever came to own a newspaper he would never allow more than single-column headings. He is now proprietor of a paper that stretches its headings across the whole seven columns, and not only that but shows some of them up in flaming red ink. Thus do we "evolve", and sometimes swallow ourselves.

To come back to the part played by city newspapers in misleading their readers concerning the farmer's business, we can pick up almost any newspaper and find such headings as "Dairy Farmers Making Money, Another Successful Year for Ontario Dairymen," with similar frills as sub-headings; "The Money that is in Dairying," and so on till we are satiated. The city housewife, and her lesser-half, of course, concludes that this is really the substance of the thing—that the farmer is making his pile and that they are the sufferers and have to pay dearly for it. What other conclusion could they come to?

After all it simply comes down to this, that it's no use worrying about what the misguided ultimate consumer "thinks," or devoutly believes. What we as farmers and businessmen should do is get to work as other businessmen do and protect ourselves. It isn't a bit of good whining. That was grandfather's way. He whined, and whined, and whined, and he died whining, trusting no doubt that a magnanimous public or "the powers that be" would hear his complaint, perceive it to be just, and pass out some form of relief.

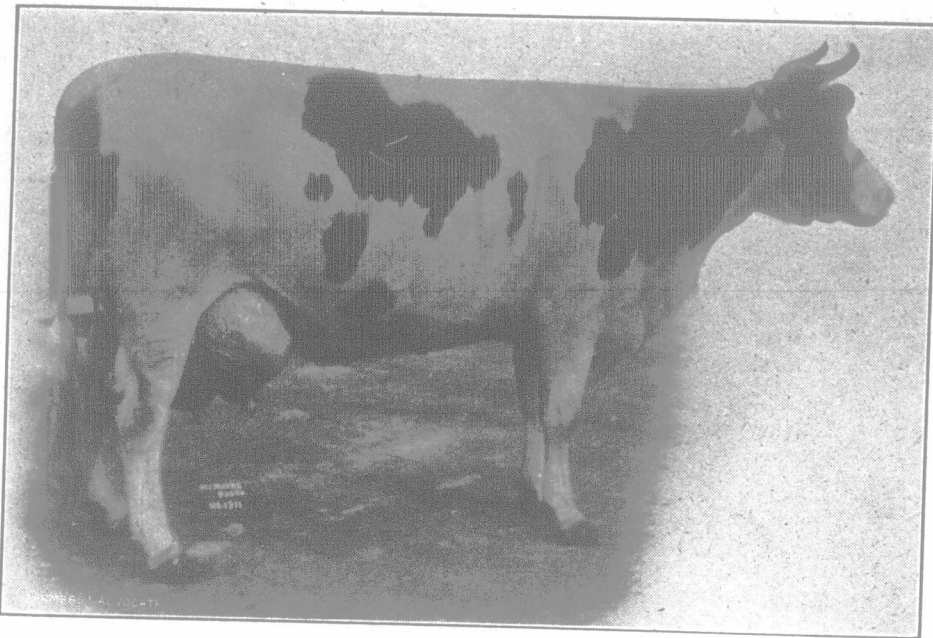
Now grandfather is dead, and we are living in an age when, if we have eyes to see and ears to hear, it has been abundantly proven, and is to-day working out under our very noses, that by getting together under the name of co-operation (and "sticking" together), the producer in any line of business can have a mighty big say as to what his products shall be sold

for, and whether he shall have a decent living profit for his labors or not.

I, too, have been reading that most interesting book referred to by our mutual friend Peter Mc Arthur, "The Farmer and the Interests; A Study in Parasitism," and I wish that every farmer in the land would buy a copy of it and read it seven times. It would do him more good than anything he has taken into his system in a mighty long time, for I believe it would bring him to his senses, where he could see himself as in a looking-glass, with long-ears and a fiddle-face, long drawn out with whining; and where he would be able to realize the absurdity of the situation and the tremendous power that the farmer could exert in this land of ours if he would but quit his old foolish way of copying grandfather and adopt a few most simple modern methods of conducting the most important part of his business, which farmers in other places have adopted to their abundant satisfaction and profit.

This little book was sent me as a gift, but I think it sells for seventy-five cents, and it would be cheap at twice the money. It contains so powerful an argument, so clearly and readably written, that if it cost five dollars, and every farmer in Canada would buy one and act upon the lesson it contains, I believe it would do more for the uplift of farming in this young country than any other agency that has ever worked among farmers. Treat yourself to a copy! There isn't a dry page in the whole book from cover to cover, and you'll feel better and think more of the nobility as well as the possibilities of farming when you've read it. And, unless I'm mistaken, you'll want to read it all over again, for it's the kind of talk that takes hold of one and makes him feel glad to be called fourteen kinds of a jackass. Here's to Clarus Ager, the author, who assuredly digs down to the roots of the farmer's problem.

Turning back to the price-of-milk question, it's no wonder that the Editor is stirred to write editorials on the attitude of the consumer, and still less wonder that the farmer who produces quantities of this valuable and necessary food grows hot under the collar when he hears the consumer's wowl and is aware all the while of the following undeniable things completely proven by investigation:—



Madam Posch Pauline 10291.

7 days milk, 772.2 lbs; butter 34.09 lbs. 30 days' milk, 3257.2 lbs; butter 136.34 lbs. 60 days' milk, 6479.2 lbs; butter 267.50 lbs. 90 days' milk 9541.8 lbs; butter 390.16 lbs. 6 months' milk 17476.7 lbs; butter 709.9 lbs. 1 day's record milk 118.8 lbs.

That it is far more difficult for dairymen to make a profit from their herds than in previous years. First, because of the increased prices of foodstuffs. Second, because of the increased cost of hired help. Third, because the farmer, alike with the complaining consumer, is a victim of the High Cost of Living, and has to pay more for everything he buys. The ultimate consumer of farm products in towns and cities will please note that shoes, drygoods, groceries, hardware, etc., etc., don't grow on farms, but that the farmer has to pay for them in the cold coin of the realm.

For proof of the unprofitableness of producing milk let us get down to figures. In Minnesota, not long ago, a cow census was taken. One hundred herds were included, containing 1,092 cows. The gross returns from the creamery of the hundred herds was \$32,815, and the cost of feed, \$27,191, leaving a profit for the hundred herds of \$5,624, or \$5.15 per cow. In this calculation nothing is said about labor.

Few people, even among dairymen, realize that the cost of producing milk has doubled in the past 18 years. Every child sucking a bottle knows that the price at which the product is sold to the ultimate consumer has not increased in like proportion, or anything approaching it. Rations for dairy cows have increased 70 per cent, in 18 years. They are increasing at the rate of about five per cent. per week at the present time.

Viewed from a business standpoint, the lines on which the farmer runs his business make him look ridiculous. When the price of labor or the cost of raw materials goes up, other manufacturers advance the price of the finished product, and consult nobody. When the price of farm labor advances, or foodstuffs go up, as they are rapidly doing this very moment,

the farmer continues to sell his milk at the same old price as before. The middleman states what he is prepared to pay, and that settles the matter. Detached as he is from his fellows, the farmer is powerless to control in any sense or form the most vital factors of his business. His protest is a still, small voice, pathetically crying in the wilderness over milk that's just as good as spilt. Oh, gentlemen, gentlemen, we shall surely have to do something about it; we can't let this thing go on in this way! No wonder they look down on the farmer. They certainly can't look up when he is content to walk always in the ditch, respecting neither himself nor the dignity that should belong to his business. Northumberland Co., Ont. W. L. MARTIN.

A Veterinarian's Views on Tuberculosis.

We sold a cow to a man of precise ideas. Being an electrical engineer by profession and having made a systematic study of farming as an avocation for a number of years, he was positive in his convictions as to what constituted safe and sane and mathematically accurate methods. To our surprise, he specified that the cow should not be tuberculin tested as he preferred not to have her subjected to the possible danger of a reaction; but he stipulated that she must be given a thorough physical examination by a capable veterinarian. We suggested that he send his own veterinarian to make the examination; and yesterday, the man of science appeared on the job. Taking off his coat he proceeded to examine the cow from tooth to tail, and from head to hoof. Incidentally he gave us considerable information in answer to our numerous questions.

It may be mentioned that the Doctor is a recognized authority in his profession, and is in demand as a university lecturer. Therefore, it is proper to attach a considerable degree of importance to his observations on the question of bovine health. In answer to our question as to what he thought of the value of a physical examination for the purpose of determining the health of an animal he said:

"A single physical examination is valuable but not conclusive, whereas repeated examinations conducted periodically for a term of years may be depended upon to prove effective in determining the health of a herd. For several years I was employed, in company with another veterinarian, to make inspections of all the members of a certain dairy numbering upwards of 100 animals. Eventually it became necessary to have the herd tuberculin tested in order to conform with the requirements of the market handling the milk from the herd; and in the entire number, only eight reacting cows were found, every one of which, in post mortem examinations, proved to be a localized case with not a single generalized case in the whole herd. My experience in numerous other herds has

led me to the conclusion that, in nine cases out of ten, bovine tuberculosis can be detected by a careful physical examination. Moreover, by means of laboratory experiments, examinations of sputum, etc., it is possible to detect in practically every instance the animal that is a spreader of the disease. I believe, therefore, that the only way in which we can hope to make any progress in our fight against tuberculosis among cattle is by means of a general plan of periodic physical inspection that shall apply to every animal in every herd.

"The tuberculin test is reliable, but the trouble with the tuberculin test is that it produces a reaction in animals having tuberculosis in merely a localized form, animals that ordinarily would continue profitable members of the dairy until they die of old age. Why, I actually dread to conduct a tuberculin test because I know that in so many instances cattle must be condemned that, to all intents and purposes, are perfectly sound and healthy, and that for no reason whatever ought to be sacrificed. The tuberculin test, as it is now administered, is not enabling us to make any progress. An occasional test here and in some herds a few miles away and over in the herd of some other progressive breeder a few miles farther is not contributing in the slightest degree to the health of the cattle of the country as a whole; but a thorough system of conscientious examination, resulting in the complete elimination of all animals that are found to be spreaders of tuberculosis, could not fail to accomplish wonders in the cause of good health and without working a serious hardship to the individual owner. Why, everybody knows that a universal application of the tuberculin test with consequent

slaughte... dairy in... of the g... be cond... inariat... unde... of the... to a... to their... with wh... in con... does it... the post... amination... demned... long sea... tubercul... size of a... remote... animal's... Such a... common... as a str... tion of... of the t... and as... vindicat... that co... animal... don't se... help be... the con... the phy... ation my... supersed... culin t... latter v... to be r... all excep... cases... physical... with its... ing labo... does no... tively co... "Ano... tubercu... pasteuriz... factories... Dairy... Durin... in the O... themself... Reco... Nam... Golden F... Lady Ma... *Iford W... *Iford F... *Flora H... Puddingt... Welbeck... Average... and upw... Average... P., 3 y... 3.9%..... *Cow... R... Nam... *Young... *Blackie... *Molly R... *Molly R... Toitilla R... *Margare... Beauty... Barbara... Mercena... Toitilla R... *Beauty... Molly Ru... Mercena... 3rd (3 tea... Average... years of... (the wh... 3.6%..... Average... Holstein... Vol. 7, t... *Co...

slaughter of all the reacting animals would ruin the dairy industry, and would involve a needless sacrifice of the great majority of the cattle that would have to be condemned as a result of the test; and every veterinarian and every other man who is at all posted, understands perfectly well that the most of the cattle of the country are not affected with tuberculosis to a degree that is in any sense dangerous either to their own health or to the health of other animals with which they come in contact. What does it matter that the post mortem examination of a condemned animal after long search reveals a tuberculosis lesion the size of a pea in some remote corner of the animal's anatomy? Such a discovery is commonly referred to as a striking illustration of the triumph of the tuberculin test, and as a sufficient vindication of the law that condemns the animal to death. I don't see how we can help being forced to the conclusion that the physical examination must eventually supersede the tuberculin test, and the latter will not need to be resorted to at all except in special cases where the physical examination, with its accompanying laboratory tests, does not prove entirely conclusive.

"Another important factor in the warfare against tuberculosis is the adoption of a law providing for pasteurization of skim-milk and whey in all public factories and creameries."—Black and White Record.

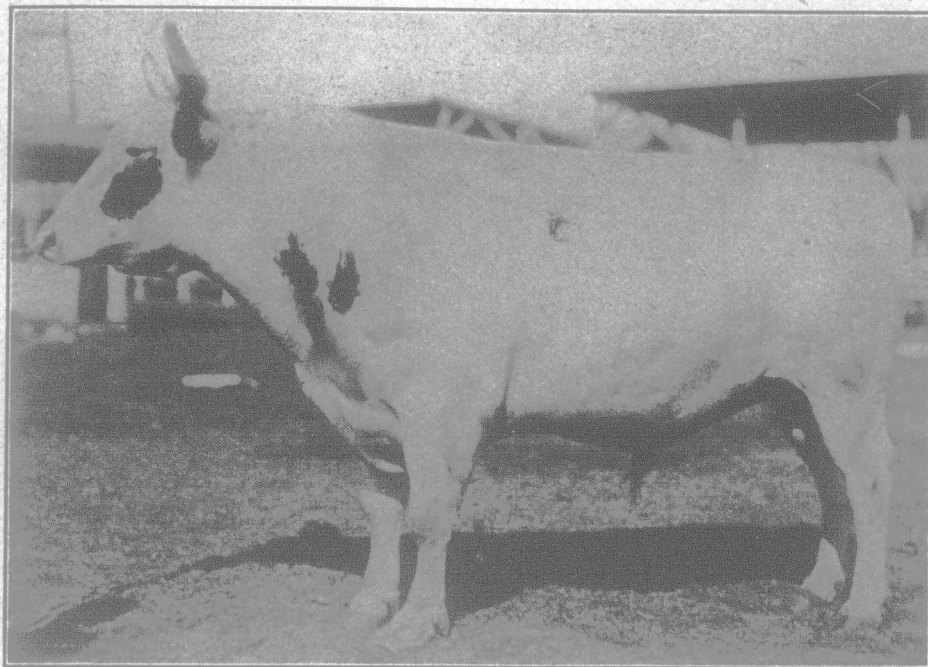
Dairy Records at Guelph College.

During the past year the Holstein and Shorthorn cows in the O.A.C. dairy herd have given a good account of themselves. True, they have received every attention

and have been fed heavily on milk-producing feed. However, every cow has returned a profit for the feed consumed, the highest in the Holstein herd being \$176.14 and the lowest \$31.63. Shorthorns are not expected to give as high returns in milk as strictly dairy breeds, but, the milk product of Golden Rose at market value amounted to \$204.40, or \$101.32 over the cost of feed. An interesting point regarding the milk records is that the highest were made by cows which

of milk and value of feed consumed. However, this does not always hold good; for instance, Margaret Cornucopia, a ten-year-old cow, came about 5,000 pounds short of the record cow in yield of milk, but her feed cost was within \$2.46 as much, consequently this greatly reduced the profit. Beauty of O. A. C., a twelve-year-old cow, was about 7,000 pounds of milk short of the record cow, but her feed bill is only \$2.34 less, which makes a difference of \$144.51 in the profit. This is an argument in favor of keeping an account of the feed consumed as well as of the daily milk records. The cow that gives the largest amount of milk is not necessarily the most profitable cow. The table shows that the average of the whole herd of Holsteins and Holstein grades is about 600 pounds of milk and 100 pounds of fat, better than the average of 122 mature Holstein cows qualified in the R. O. P. during the year ending April 30, 1915. The average butter-fat content of the milk is also considerably above the average for the breed. The two strains of Holsteins kept at the College are exceptionally high testers. The herd of Shorthorn cows also averages considerably higher both in yield of milk and pounds of butter-fat than the average of the cows qualifying in the R. O. P.

To many dairymen the cost of feed may seem unusually high, but the point to be remembered is that the cows returned a profit for what feed they consumed. Even if the interest on investment, cost of labor and overhead expense were deducted, the profit in all but one or two cows would still be exceptionally high, which goes to prove the possible profit from a carefully selected herd, properly fed. The cows never lacked for a supply of roughage and concentrates were fed according to the quantity of milk produced. The following will give some idea of feeds used in making up the ration and the cost of same: Alfalfa hay, \$17 per ton; clover hay, \$10 to \$12 per ton; silage, \$3.34 per ton; mangels, \$2.50 per ton; bran, \$25 per ton; brewers' grain, \$25 per ton; oats, 35 cents per bushel; oil meal, \$36 per ton; cotton seed, \$30 per ton; pasture, \$1.87 to \$2 per month. These figures were market price of the various feeds. When studying the table it must be remembered that all the cows, with the exception of Blackie, a grade, dropped two calves within fifteen months, and that some freshened within the year. The mark before the cows' names indicates that they were stable fed the year round. The figures were forwarded by A. Leitch, farm manager and live-stock investigator at Guelph Agricultural College.



Hillside Peter Pan.

Senior and grand champion Ayrshire bull at Toronto. Owned by Alex Hum: & Co., Campbellford, Ont.

were milked twice a day throughout the year, thus demonstrating that, providing care and attention are given, creditable records can be made from twice-a-day milking. The following tables give the ages of the animals, pounds of milk for the year, together with the pounds of butter-fat, and it is interesting to compare the yields of milk with the cost of feed. The cow that gave the most milk cost the most to feed, but also made the greatest profit. In the majority of cases there is a definite relation between the yield

Records of Shorthorn cows at the O. A. C. for year ending August 31st, 1916, under R. O. P. rules.

Name of cow	Age	Lbs. milk	Lbs. fat	Lbs. 80% butter	Cost feed	At 33c. value of fat	At 20c. value of Skim-milk	Total value of Product	Profit over cost of feed
Golden Rose.....	8	12395	560	659	\$103 08	\$184 80	\$23 60	\$204 40	\$101 32
Lady Maud.....	8	11981	506	600	106 24	166 98	22 80	186 78	80 54
*Iford Waterloo Baroness.....	4	10410	381	450	104 49	125 73	20 00	145 73	41 24
*Iford Fairy Duchess.....	4	9536	384	454	100 19	126 72	18 20	144 92	44 73
*Flora Hope.....	2	7773	318	374	97 07	104 94	14 80	119 74	22 67
Puddington Solo (3 teats).....	4	6441	271	320	70 42	89 43	12 20	101 63	31 21
Welbeck Princess Darlington.....	3	3149	126	150	42 68	41 85	6 00	47 85	5 17
Average of 7 cows, 2 years old and upwards, test 4.15%.....		8812	366	431					
Average 39 cows in Vol. 7, R. O. P., 3 years and upwards test 3.9%.....		7700	303	357					

*Cows marked were stable-fed the year round.

Record of Holstein and Holstein Grade Cows at O. A. C. for year ending August 31st, 1916, made under R.O.P. rules.

Value of products and cost of feed are also given.

Name of cow	Age	Lbs. milk	Lbs. fat	Lbs. 80% butter	Cost feed	At 33c. value of fat	At 20c. value of skim-milk	Total value of Product	Profit over cost of feed
*Young Springwood.....	5	20110	821.12	1026	\$133 19	\$270 93	\$38 40	\$309 33	\$176 14
*Blackie (Grade).....	14	17119	639.71	800	127 01	211 20	32 80	244 00	116 99
*Molly Rue Rattler.....	3	16975	640	800	122 15	211 20	32 50	243 70	121 55
*Molly Rue.....	6	16466	602	753	123 38	198 66	31 60	230 26	106 88
Toitilla Rue 2nd.....	4	15253	554	693	94 70	182 82	29 40	212 22	117 52
*Margaret Cornucopia.....	10	14978	554	693	131 73	182 82	28 90	211 72	79 99
Beauty of O. A. C. 3rd.....	5	14821	535	669	91 42	176 55	28 60	205 15	113 73
Barbara (Grade).....	6	14702	509	636	83 66	167 97	28 20	196 17	112 51
Mercena Neth. O.A.C. 2nd.....	5	14515	483	604	96 25	159 39	28 00	187 39	91 14
Toitilla Rue.....	5	14041	513	641	80 59	169 29	27 00	196 29	115 70
*Beauty of O. A. C.....	12	13083	416	520	130 85	137 28	25 20	162 48	31 63
Molly Rue 2nd.....	4	12677	469	586	91 14	154 77	24 40	179 17	88 03
Mercena Neth. O. A. C. 3rd (3 teats).....	3	11122	404	505	74 79	133 32	21 40	154 72	79 93
Average of 13 cows, 3 years old and upwards (the whole herd) test 3.6%.....		15072	551	689					
Average of 122 mature Holstein cows in R. O. P. Vol. 7, test.....3.2%.....		14411	451	564					

*Cows marked were stable-fed the year round.

HORTICULTURE.

Small Fruit Packages and Packing.

The results of the analysis made a few years ago of many food products revealed the great need of pure food standards and the necessity for regulations to govern the preparation and handling of these. Manufacturers and dealers have in many cases not only exceeded the standards as to quality but have created a keen competition in the matter of sanitary and attractive packages for their products.

The ever increasing demand for package goods has demonstrated beyond a doubt that the people are willing to pay big prices to satisfy their desire for sanitation, and many of our very ordinary foods, which a few years ago were scooped out of a bag or barrel and tied in a paper sack, are to-day scarcely recognized in their beautiful lithographed, labelled package and trade registered name. It is a well-known fact that in many cases the cost of the package and the advertising of the article exceeds one half of the actual selling price of the goods.

Whether or not these new conditions have unnecessarily added to the high cost of living is not a question for our consideration at this time, but it proves conclusively that the question of packages for all food products is one of great importance and worthy of serious consideration.

Our present fruit standards or grades apply only to fruit when packed in a closed package, which practically means a box or a barrel, therefore we have no legal standards or grades for the marketing of small fruit. Many growers are of the opinion, however, that some such standards or grades are desirable, but not practical at the present time.

During the last two years the question of standard fruit packages has been a live one with growers and shippers, especially in the Niagara District and in the province of British Columbia. Many resolutions have been received by the Fruit Commissioner from representative bodies of fruit growers throughout Canada requesting that fruit packages be standardized, but although nearly all are of the opinion that standardization is needed there is still a considerable variation of opinion as to what are the best packages to adopt. In fact so keen has this question become in one of our tender fruit districts that the growers are divided into two factions, both realizing that they cannot agree, they have asked the department to arbitrate as it were. It is therefore quite evident that great care must be exercised in selecting the packages before asking for legislation.

Growers in the province of Quebec are naturally interested in all packages used in marketing fruit especially those which may be used to market strawberries, raspberries, currants, gooseberries, plums and tomatoes, for these are the main crops of small fruits grown.

In Eastern Canada the commercial package generally used to market these has been the berry box, and the six and eleven-quart basket.

The Present Legal Requirements and how they Affect the Producer and Consumer.

Section 326 of the Inspection and Sale Act, part IX, requires that every box of berries or currants offered for sale and every berry box manufactured for sale shall be plainly marked on the side of the box in black letters at least half an inch square, with the word "short," unless it contains when level full as nearly exact as practicable (a) at least four-fifths of a quart, or (b) two-fifths of a quart. This practically means that any box of a size between the two-fifths and the four-fifths quart or any box smaller than the two-fifths quart must be marked "short."

The marking of the word "short" on the side of the box was intended to convey to the purchaser the information that that particular box did not contain as much fruit as the four-fifths or two-fifths, but on account of the marking being on the side of the box, very few purchasers ever saw it. Instances are not few when purchasers on enquiring as to the meaning of the word "short," were told that it was the grower's name.

When these regulations were framed it was no doubt expected that there would be practically only two sizes of berry boxes used, but this unfortunately has not been the case. It is possible to manufacture and offer fruit for sale in any size box one may wish, provided the word short is marked on the side.

The lack of standard boxes has caused a great amount of dissatisfaction to the trade and consumers. The strawberry season usually opens about the middle of December with fruit imported from the Southern States in Imperial quart boxes, well filled. These are bought by the retailers at high prices but, on account of the high price, are seldom offered in the original packages. The retailers buy smaller boxes of various sizes containing two-fifths, one-half and four-fifths quart which they fill from the original packages. Many of these smaller boxes although varying in cubic measurements are made to appear to be the same size on the surface, as for example, the surface measurements of the full quart, the four-fifths quart and the pint are practically the same. The result is that there is no uniformity in the retail prices and the consumers are unable to tell whether they are getting value for their money or not. These conditions obtain throughout the season when fruit is imported, which is usually from December until our Canadian fruit is offered in June.

Another disturbing feature in connection with the berry box is that there is no legal requirement as to the quantity each box must contain, and we find that boxes of strawberries have varied from eight to seventeen ounces. In order to make the best of a bad purchase the retailer is sometimes tempted to improve the appearance of the boxes by turning the fruit out and replacing the berries in the box in the same way as one can pile a cord of wood to make it measure a cord and a quarter.

During the past three seasons the staff of Fruit Inspectors have been paying special attention to the filling of boxes and baskets and have obtained excellent results. On account of the thinness of the slats used between the layers in crates which rest almost directly on the top of the boxes, great care must be exercised in having the boxes well filled and levelled off before being placed in the crate in order to have a full appearing box when they arrive at their destination without bruising the fruit.

Present Methods of Marketing in Quebec.

A visit to the Bonsecour Market in Montreal will give one a fair idea of how the greater percentage of small fruit and tomatoes are packed and sold. Unlike the strawberry growers of Ontario, who ship their fruit in crates containing 24 to 27 four-fifths boxes the growers in this province use a crate containing 54 short boxes—three layers of 18 boxes each. The crates are made out of one inch lumber and are returnable to the grower.

The strawberry season usually comes at a time when the growers are not over busy with other crops and their time is very profitably employed in hauling their fruit to market instead of drawing to the nearest railway station and shipping by express. Thirty-five crates containing about 1,800 boxes can be loaded on an express wagon and drawn by a team of horses for long distances. The operation requires about one day and represents a wage of about \$22.00 for the grower and his team. This method would prove profitable only where the grower has the time to spare.

Plums and tomatoes are usually marketed in boxes of various sizes, the old green painted John de Kuypen gin box being very much in evidence. The lack of uniformity in the size of the containers makes the buying and selling more or less of a gamble—more I think on the part of the purchaser than the grower, because the grower usually knows the quantity each box contains.

Packages and Packing.

The packages now used and the present methods of marketing may bring satisfactory returns to the grower so long as he continues to sell his fruit in the local markets, but if the production of small fruits in this province is to increase in proportion to the possibilities of production and marketing the growers must adopt such packages as will insure safe delivery and present a neat appearance when offered for sale to the consumers.

There have been several kinds of containers used in shipping fruit in berry boxes in Eastern Canada, but most of these have been discarded in favor of the 24-box basket and the 27-box crate. The latter has a decided advantage over the 24-box basket, its carrying qualities are better and the cover may be removed

as often as necessary without having to draw nails and injure the cover thereby. Therefore I think the time is not far distant when the 27-box crate or one similarly constructed will be used altogether in Eastern Canada. The thickness of the slat now used in the crates is not sufficient to allow the proper filling of the boxes without loss of time.

In picking strawberries great care should be taken to exclude all over-ripe berries or larger berries with small, soft spots on the side. The temptation to put in these latter is sometimes great, and it is false economy to do so as one or two of this kind will in a few hours affect the whole box and depreciate the value of the crate.

The crates in which the fruit is to be marked should never be taken out to the plot as they are almost sure to become soiled; pickers should be provided with special picking crates or baskets holding eight or twelve boxes. A small shed conveniently located should serve as a protection to the fruit from sun and showers and should also furnish a place where the boxes, as they come from the pickers, may be inspected before placing them in the shipping crates. A mistake which is not uncommon is that of allowing pickers to place their boxes directly into the shipping crate. This practice frequently gets the grower into trouble because it permits an unscrupulous employee, who is being paid by the box, to place partly filled boxes in the bottom layers and full ones on the top. This is an offence against the Inspection and Sale Act, which requires that the face or shown surface of every package of fruit shall be a fair representation of the contents of the package. Some growers have made a practice of "placing" the berries on the top row of each box. The operation does not pay and it tends to arouse a suspicion that the contents are not equal to the shown surface.

The same rules apply to currants, gooseberries and all kinds of fruit put up in berry boxes. Special care should be taken in packing black currants to see that all green leaves and unripe berries are excluded. Black and red currants are frequently shipped in the six and eleven-quart baskets and although they carry fairly well in the six-quart basket the berry box is considered the best all-round package, as it allows of a greater circulation of air which prevents the fruit from heating and becoming "matted."



Montreal Melons Grown at Vineland Experiment Station.

Every grower is familiar with the six and eleven-quart fruit basket and although we may admire the four-basket crate used by our California and Pacific Coast friends, I am convinced that there is no better package in which to market our eastern grown plums, peaches, pears and grapes than the six and eleven-quart basket. The six-quart basket is preferred for plums because in the eleven-quart baskets the weight on the bottom layers is so great as to cause waste and disfigure the packages.

The many shortcomings of our present legislation governing the packages and packing of small fruit have been revealed through the progressiveness of our fruit growers, and had it not been for the conditions brought about by the war advanced legislation would in all probability be in effect to-day. It is therefore in the interests of the fruit growers in this province and throughout the Dominion to give this question of standard packages and grading their serious consideration, so that when legislation is possible we may obtain that which is most suitable to our needs.

Standardization will give to our fruit industry a measure of stability that will enable all those engaged in it to buy and sell with a confidence they do not enjoy to-day.

It has been my privilege to observe the possibilities for small fruit production in the various fruit districts throughout Canada and I am fairly convinced that nowhere are the possibilities greater than in this province. Nature has made it possible to produce fruit of a quality which cannot be surpassed and the markets are established.

[A paper by C. W. Baxter, Chief Fruit Inspector, read at the Quebec Pomological Society meeting at La Trappe.]

A Discussion of the Economy Crate.

EDITOR "THE FARMER'S ADVOCATE":

In your issue of August 31 you gave a cut of the Economy Crate, a package used last season by some British Columbia growers. It may be of interest to your readers to know the history of this new package and why it was used, as well as its weakness as a suitable crate for growers.

The fruit lands of the West are largely held by retired business men, or men whom the speculators in lands in the irrigated districts, have induced to give up their business and take up fruit farming as a hobby or something to retire to. These men have come from cities and have been used to getting their goods done up in an attractive manner and doing up their wares in fine packages, so when they embarked in fruit-growing they brought to it methods they learned and used in their various businesses. Their big advantage on the market was gained and is held by the attractive pack and package in which they put up their fruit. It has been carried to the extreme and there is a reaction against it, partly on the economic side of the matter. The price of packing is high in the estimation of many growers, but it requires skilled and well trained packers, and in an attempt to do away with that they have swung to the other extreme and tried to do away with the graded pack altogether.

The economy crate is not, as some are trying to believe, a cheaper box but it is intended to be an economy in packing. It has not measured up to the expectation of those who have introduced it and the O. U. G. are not advocating its use this season. It had its place for a time because it enabled those who did not feel like expending a big sum on packers for their fruit which was going out to a very uncertain market at the outbreak of the war and the year previous to that.

Everything off the tree is expected to go into these crates. It is a package for the "Orchard Run" that is you must pack your No. 1's as well as your No. 3's in it and there is where it falls down. The growers are tempted to pick out their No. 1's and pack them up especially and let all the others go, but that is not the mission of the crate, nor what the consumer expects to find in it.

Now the dealers are asking that the crate be "faced."

Who ever heard of a merchant putting anything but his best stock to the front? We wouldn't ask nor expect a grocer to put his dusty and stained packages on the shelves of his store, nor is the grower going to face his packages with the No. 3's when No. 1's are mixed through. He will naturally put at least mostly No. 1's on for facing and then immediately the package becomes deceptive.

Of all businesses the fruit grower seems to be a "mark" and nearly everything he is asked to do for the trade he will do. He was asked to advertise the fruit lands and he did it. He is asked to advertise the fruit single handed and he is doing that, and the jobbers get the greatest part of the benefit and now they are asking him to do what he intended

to avoid by introducing the economy crate, that is packing and grading; and the chances are that he may yield to it. The only thing that will prevent him is this, that it will break the law as regards pack, which states that the face of the box must indicate what is hidden from view on the inside. The economy crate has not filled a mission in the southern end of the Okanagan for there is too large a percentage of No. 1's in the orchard run and the growers and shippers have felt that it was taking a lower price than was necessary for a great many of their apples.

It has, however, proven very successful in orchards and districts where there are a great many varieties, and where the majority of these varieties are not well known in the market where they are sold, and where the varieties really are of little commercial value, planted, often because the catalogues of nurseries gave them a special write-up and very elaborate color plates. Many of the orchards were put in by development companies who got their stock from nurseries and asked no questions about varieties so long as they were apple trees and came at a reduced rate. These orchards were planted and sold before they came into bearing, and the purchaser has either to sell his crop in some such way as the economy crate offers or get practically nothing for it, until he can top-work or plant his orchard new, in between these old trees. The economy crate is his only salvation.

It meets its keenest opposition at the hands of those who have nothing but the best varieties and a large percentage of No. 1's in their pack, for there is no doubt that a cheaper pack will pull down the price of the first quality apples if the cheaper pack is very much in evidence.

The economy crate is never going to keep the hold

nor favor that it made the first season and as soon as these orchards with poor varieties are re-planted or top worked it will pass from use altogether, and nothing will kill it quicker than the facing of the pack, if that is ever adopted.

B. C.

WALTER M. WRIGHT.

Horticulture in School Work.

EDITOR "THE FARMER'S ADVOCATE":

A departure in public school work with gratifying results was made in Ottawa during the past season under the direction of Dr. J. H. Putnam, chief inspector. Three lots of waste land, each 50 feet by 100 feet, were secured by loan and devoted to the cultivation of vegetables and flowers by 368 pupils from the intermediate grade of three schools, under the personal direction of one of the regular staff of teachers especially well qualified for the duty partly through her early life being spent on a farm. The work was made a part of the regular class schedule of studies from the middle of May until the end of June. Two-thirds of the space was devoted to plots of 4 feet by 3 feet for two pupils, each having an end and their choice of three or four kinds of vegetable seeds. From an educational point of view and otherwise the results are reported to have proved most satisfactory and a helpful stimulus even to those who did not actually participate. Really surprising results were attained in the growth of flowers and vegetables and the large bed set aside for community work made the general effect more impressive. The scheme had the advantage of the co-operation of Prof. W. T. Macoun, of the Central Experimental Farm, and so well satisfied were the school authorities with the achievement that they designated one of the teaching staff to take a special course at the Ontario Agricultural College in order that if continued next season the work may be developed in trained hands.

Middlesex Co., Ont.

W. T.

"Alpha" writes: "Nearly every season with the approach of freezing weather a good many unripened tomatoes go to waste in some gardens although most of them might be used for pickling and kindred purposes. As has been suggested by one writer they may be ripened indoors in a hot-bed if picked before the frost touches them. I have found a light frame covered with coarse canvas, doubled, better in some cases than a glass sash as the latter on a bright sunny September or October day will generate so much heat as to almost cook the tomatoes beneath. Even with very little sun or heat tomatoes fairly well matured and placed on shelves in a room near the light soon take on a bright color."

POULTRY.

Roup in the Flock.

The cold, damp days of fall and early winter oftentimes bring trouble for many poultrymen. The birds, not established in their winter quarters, are frequently exposed to direct draft or are possibly housed in im-

perfectly ventilated buildings. The result, in many cases, is an outbreak of catarrh followed by roup. The former is the forerunner of the latter and both are the results of exposure or of weak and improperly fed birds coming in contact with the disease organisms. The disease can be carried from one bird to another by particles of the dried secretion, through the drinking fountains, or by birds feeding on infected ground. Attendants may also spread it. Birds have been known to contract the disease at shows and spread the trouble through the entire flock. Care should be taken to avoid this as it is difficult to effectively treat the disease. Some birds may show symptoms for months and spells of damp cold weather cause fresh outbreaks.

At first the bird appears to have a cold, is fevered and does not care to move. There is usually a discharge from the nasal opening of thin, watery material. In a day or two this becomes thick and obstructs the breathing. Inflammation sets up in the nasal passages and extends to the eyes, in time closing them. In fact, they are often glued together by this secretion. The nostrils become sealed by a cheesy growth and the mouth filled with fibrinous material. Tumors form and the head is very much enlarged. Owing to the air passages being closed, the birds sneeze a good deal in an attempt to free the passages. Most poultrymen have seen the birds so affected. In advanced cases the birds are unable to see or eat and usually die within a week. However, many apparently recover although they may continue weak all winter. Such birds are a source of infection. Of course, all birds do not show some of the pronounced symptoms mentioned. They may have the disease in a mild form and completely recover in a few weeks if given proper attention. Turkeys as well as hens are subject to attack. When the disease is first noticed in the flock the affected birds should be removed and the yards and houses thoroughly disinfected with some material such as creolin, zenoleum or carbolic acid. One treatment which was recommended is to give each bird that is affected one teaspoonful of dry salts and bathe the head in a weak solution of any of the commercial roup cures, or a five per cent. solution of potassium permanganate. Some poultrymen carefully wash the eyes and nose of the bird twice a day with an antiseptic solution, such as two per cent. boracic acid in chamomile flowers. Pressing the nostrils together between thumb and finger tends to loosen the discharge. Placing the bird's head in a solution of permanganate of potash is also found to be effective. When solid tumors form it may be necessary to operate and apply a five per cent. solution of carbolic acid to the wound. The proprietary roup cures used according to directions on the package have saved many flocks. Treatment by any of the methods mentioned requires considerable amount of time, and unless the birds are a valuable kind it is doubtful if it pays to treat advanced cases. At this time of the year a little permanganate of potash should be put in the drinking water. This tends to prevent spreading of disease and in slight cases will in itself effect a cure.

An endeavor should be made to prevent all sources of infection and to keep the birds in a healthy condition. Strong, well-nourished fowl are not so likely to take the disease as are weaklings, and if they do take it their system is stronger to throw off the effects. All utensils used in feeding and caring for the poultry, together with the houses and yards should be frequently

disinfected. Keep the pens dry and well ventilated and if any of the birds show symptoms of the disease isolate them from the main flock immediately. Birds that die should be buried deeply or burned. Growing chicks never mature as rapidly if they are subject to attacks of catarrh, or roup, and mature stock cannot be expected to lay while their system is fighting disease. The flock that is kept healthy at all times is the most profitable. It is impossible to keep all the birds healthy all the time, but by keeping the pens in a sanitary condition and isolating all sick birds as soon as trouble is noticed the mortality in many flocks will be lessened.

FARM BULLETIN.

East Middlesex Notes.

EDITOR "THE FARMER'S ADVOCATE":

The drouth still continues, relieved somewhat by light showers, and some parts of the district have had a few fairly heavy showers. There is doubtless no part that has had enough rain the past two months, and we don't know of any crop that this lack of moisture has benefited. Corn usually stands dry weather fairly well, but with the exception of a few patches the most of this crop is on the light side. Sugar beets and mangels seem to have stood it about the best of any. What little flax we have seen, so far, looked fairly good, but we haven't seen enough yet to make a statement of much value. Gangs of Indians are busy pulling it, and they generally live right in the field in a tent. The new potatoes are firm and dry and of good quality generally, but rather scarce in the hill and small. The apple crop will be below the average, but plums are fairly plentiful. We are too far north to grow peaches or grapes for market. The acreage of fall wheat will be curtailed, because the prospects for fall growth are very poor to date (Sept. 12). Most of the land was plowed late which is another disadvantage, so that altogether the prospects are about as bad for this crop as they ever are. We haven't seen any grain threshed yet, but reports seem to vary a great deal from very poor to fairly good. Some fields here and there have done even better than the average, but where drainage was poor (and that is on most of the farms) the yield will be far below the average. The prospects are strong for very dear grain this winter. We are informed that weaned pigs are selling nearby at \$2 per pair, and prospective brood sows at \$17 each, while in other places nearby a sow will bring \$30. Evidently there is considerable uncertainty about the profits in pigs just now. The consumer of pork in the city doubtless believes that the pig raiser is getting rich quick, but with feed prospects what they are now many are willing to sell. Beef cattle prices have also dropped, so that those grazers who bought early will have but a small profit. Prices for farm produce are good, but if there is nothing in a marketable form and it cannot be fitted, the consumer will have to pay still more before the farmer can get his little profit.

Middlesex Co., Ont.

J. H. BURNS.

Halifax Exhibition Enjoyed Fine Weather and Large Attendance.

The Halifax Exhibition was staged under very favorable circumstances so far as weather conditions were concerned, but throughout the country farmers were harvesting their fruit and other crops, and, suffering from lack of help, they could not attend in numbers as large as they otherwise would. Many of the best men of the Maritime Provinces are overseas or in training, and often those iron-clad greyhounds that patrol the Seven Seas glide into the harbor and, without word or warning, convey away the transport ships laden with Canadian troops destined for the fields of Belgium and Flanders, there to repeat the heroic deeds suggested by the names Ypres and St. Julien. All this movement of troops goes quietly on and there is nothing to suggest the departure of any regiment except the presence of the large steamers and the cruisers or destroyers that have guarded the transportation of so many thousand souls across without a single accident. There is an under-lying current of atmosphere which savors of war, both on land and sea, but that is the business of the War Office. After giving its sons and husbands to the service of the Empire the country down by the sea goes about its business and under these circumstances was held the Fair of 1916.

The dairy industry is becoming a very important enterprise in the Eastern Provinces and one would not be surprised to find its representative cattle the strong link in the live-stock department of the Exhibition. Dairy cattle made a splendid showing; beef cattle were light, sheep were fair, and the swine pens were almost forsaken. Horses (breeding classes) were not exceptionally well filled but there were some good individuals brought out. The fact that no Fairs will be held this year in New Brunswick discouraged some of the breeders from getting their entries into high-class fit and others from coming out at all. However, any live-stock man of the Maritime Provinces could ill afford to remain at home and fail to see the exhibit brought together in the buildings on the fair grounds.

It was rather early in the season for a show of

fruit that would do justice to the district, but many plate exhibits of apples, pears and plums were to be seen. The real fruit show is conducted at a more opportune time. Field roots and garden vegetables had a large number of entries and the display of potatoes was exceptionally large and of good quality. Seldom would its superior be seen anywhere. Several entries of cereals were on hand. They were good in color and quality.

The poultry building was not completely filled, but there was a commendable showing made here. Banded Rocks, were plentiful and White Wyandottes, White and Brown Leghorns, Orpingtons and several fancy breeds were represented. Turkeys, geese and ducks were also present in their respective groups.

The Dominion Department of Agriculture's wool exhibit was worthy of considerable study now that the fleece commands such a price. The show of automobiles was well patronized; the creamery and dairy exhibit was well arranged and very educative. The display of canned fruit and the exhibit of green vegetables erected by the Nova Scotia Agricultural College attracted many visitors. In another building in a small case was shown a few pieces of quartz taken from a Nova Scotia mine. "All that glitters is not gold," but this was the actual material and valued at \$25,000. On the other side was a pillar of coal taken intact from the seam in which it had lain. The coal was not worth quite as much as the gold, quartz, but it demonstrated the immense wealth which lies beneath the surface. Many other types of minerals were also on exhibition, all showing the great resources of the province.

At one end of the main building was an exhibit intended to stimulate an interest in good roads. Several models were prepared to show the proper care of the common earth road, the construction of the Telford and Macadam roads, and how they should be main-

tained. Enlarged photographs depicted several of such highways throughout the province. During the Exhibition representatives gathered from all parts of Nova Scotia and organized a Good Roads Association. They are not endowed with any great administrative powers, but it is felt that public sentiment in favor of better highways must be awakened and the Association can assist in this regard. Statute Labor has not proved satisfactory except in particular cases. Some more efficient method is desired. One striking exception to this is an instance in King's County where a lady is overseer. She has been able to show good results and her accomplishments have been gratifying to the Department.

DAIRY CATTLE.

The dairy cattle at Halifax made a splendid showing and in the many classes were individuals that would compare very favorably with any shown in Canada this year. Considering numbers and quality the Ayrshires probably should rank first. Holsteins and Guernseys both were strong and there was a fairly good exhibit of Jerseys. The Holsteins and Ayrshires were judged by Alex. Hume, Menie, Ont., and the Jerseys and Guernseys by Gordon Duncan, Don, Ont.

Ayrshires.—The breeders of the Maritime Provinces can make a very high-class showing of Ayrshires. This was proven at this Exhibition where five exhibitors of the breed made entries and gave to the dairy-cattle department considerable tone. In some cases the younger stock was not in high show-fit, but it was thrifty and all the entries conformed very closely to the type and character desired. At no fair in Eastern Canada this year has there been a bunch of Ayrshire females showing better udders or more correctly placed teats. The three Maritime Provinces were represented by McIntyre Bros., Sussex, N. B., John McDonald & Son, Shubenacadie, N. S.; John Retson, Truro, N. S.; Prescott Blanchard, Truro, N. S.; A. MacRae & Sons, Charlottetown, P. E. I.

There were only two aged bulls forward. Morton Mains Amantha was placed first and he would go to the top in even stronger competition. He is one of the good bulls that have been shown this season; and would compare favorably with the best. His quarters are not so correctly carved out as they might be, but apart from that his conformation is very much Ayrshire. Hobsland's Tunphie's Heir was a good strong bull, but a trifle thicker in some parts than the winner.

Highfield Shepherd was alone in the two-year-old class, but would have shown well against some opposition. The winning junior yearling, Pompey of Arniston, showed good length and depth. Pink Pill, in second place, also had a good rib and considerable masculinity. A very promising bull calf was first in its class. This was Hillside Peter, a half-brother to this year's Toronto champion. His conformation and quality are such that good things are expected of him in the future.

Eleven dry cows made up a class that would be hard to duplicate. It contained champions and the dams of champions. First came Howie's Bright Lady. She is the dam of the Toronto champion this year and is herself by Peter Pan. It would be unkind to criticize this big, typey cow and in fact it would be difficult to do so unless one were to say that she does not handle quite so well as some others. Bonnie Sweet Bessie, last year's champion, was second and, like the winner, her udder and teats were right. She has great capacity and splendid character. Clerkland, in third place, was not greatly inferior to the winning two and in less strenuous competition would have been a red-ribbon cow.

The champion for 1916 was found in the class of aged cows, in milk. Here Nellie of Springbrook Farm, was placed first. Her udder and teats were very desirable and her veining was exceptionally good. Apart from her system, especially designed for milk production, she was strong and typey and showed in good form. Springbrook Nellie was second and much the same type as the winning cow. She had been milking for some time, however, and was not in such good bloom.

There were three good individuals at the head of the three-year-old cow class. Fairvue Queen 2nd was first, an honor won by a strong constitution, good quarters and a very nice udder. She was only twelve days too old for the heifer class and did not show her best with the three-year-olds. Hillside Bunty and Hillside Perfection were second and third respectively and both good individuals.

The two-year-old heifers were not so outstanding as some of the other classes. Fairvue Lilly 2nd won the class with Hillside Barbara coming second. The latter heifer has a good shoulder and splendid quality. One dozen senior yearling heifers made a strong class. Eastcourt Elsie, a deep, typey heifer was placed first. She had a well-sprung rib and good length of quarter. Jean 2nd was good enough for second which was no small honor in such company. Fairvue Helen and Fairvue Gurta were next in order. The junior yearling heifers were a typey bunch. Springbrook Alice, which was never beaten in her class, went first, with Hillside Bunty 2nd following next in order. Pink 2nd, a deep, sweet heifer, was third.

Awards.—Aged bull: 1, McIntyre, on Morton Mains Amantha; 2, MacRae, on Hobsland's Tunphie's Heir. Bull, 2 years: 1, McDonald, on Highfield Shepherd. Bull, junior yearling: 1, McIntyre, on Pompey of Arniston; 2, Retson, on Pink Pill; 3, McDonald, on Rockland Walter. Bull calf: 1, Blanchard, on Hillside Peter; 2, MacRae, on Fairvue Chancellor; 3, McIntyre, on Springbrook Jerry; 4, Retson, on Early Blossom. Dry cow: 1, Blanchard, on Howie's Bright Lady; 2 and 4, MacRae, on Bonnie Sweet Bessie and Rosabell; 3, Retson, on Clerkland. Cow, 4 years: 1, MacRae, on Nellie of Springbrook Farm; 2, McIntyre, on Springbrook Nellie; 3, Blanchard, on Ardyne Perfection. Cow, 3 years: 1 and 4, MacRae, on Fairvue Queen 2nd and Fairvue Evangeline; 2 and 3, Blanchard, on Hillside Bunty and Hillside Perfection. Heifer, 2 years: 1, MacRae, on Fairvue Lilly 2nd; 2 and 3, Blanchard, on Hillside Barbara and Hillside Perfection; 4, McDonald, on Enchantress 2nd. Heifer, senior yearling: 1, Retson, on Eastcourt Elsie; 2, McDonald, on Jean 2nd; 3 and 4, MacRae, on Fairvue Helen and Fairvue Gurta. Heifer, junior yearling: 1, McIntyre, on Springbrook Alice; 2, Blanchard, on Hillside Bunty 2nd. 3, McDonald, on Pink 2nd. Heifer calf: 1, 2 and 4, McIntyre, on Springbrook Nellie, Springbrook Orange Lilly and Springbrook Lady Opal; 3, Blanchard, on Hillside Rose 3rd. Champion bull: McIntyre, on Morton Main's Amantha. Champion female: MacRae, on Nellie of Springbrook Farm. Aged herd: 1, MacRae; 2, McIntyre; 3, Retson. Young herd: 1, McIntyre; 2, Blanchard; 3, MacRae. Bull and three of his get: 1, MacRae. Cow and two of her progeny: 1, McIntyre.

Holsteins.—The black and white dairy cattle made one of the strong breed showings of this department. Four breeders were there with more than half a hundred head, some of which are known as great producers and others as the parents of good individuals. S. Dickie & Son, Onslow, N. S., brought forward some splendid cows; Walter Lea, Victoria, P. E. I., had some good aged cattle and was strong in young stuff; Harding Bros., Wellsford, N. B., had covered the Quebec circuit and pulled into Halifax with about eighteen head. Their herd was somewhat weakened by the strain of showing and several sales, but they captured a good percentage of the ribbons. John J. McCabe of Westville, N. S., also showed about eight head. Lea had the first-prize aged bull and champion

in Ida Rooker's 2nd Dale, a sire that has been several times champion in the East and has got some good stock. He was deep, strong and showed dairy qualities. Sir Favorit Posch, the winning two-year-old had plenty of scale and will develop into a big bull. He is by Schuiling Sir Posch the Toronto champion in 1909-10. Percilla Schuiling Posch, the best senior yearling, was also up to standard for size and a promising bull. The first-prize junior yearling and calf were typey fellows with good lines, conformation and quality.

At the head of a very strong class of dry cows stood Miss Lahonda, the sensational winner of the Amherst dairy test in 1914 with a total score of 332.57 points. This, we believe, is the highest public, three-day score in Canada. With all her producing ability she is still a very typey cow with a beautiful shoulder, long quarters, excellent udder and good conformation throughout. She was ultimately declared the champion female of the breed. Cobequid Helbon Nellie, in second place, was another of the big, typey, useful kind. The third prize went to Shadelawn Olinda 2nd, a cow of excellent quality, but a trifle too thin to show at her best. A cow with excellent veining and other good qualities, Mercena Artillissa, was fourth. The aged cows in milk brought out another lot of good ones. Maggie Abbekerk went into first place but she did not show at her best for she had been milking since January. She had great capacity and handled well. Island Maggie De Kol, that has proven herself in public test as a grand milker, was adjudged good enough for second place. Her large udder was well attached and her conformation was such as to insure good working capacity.

The three-year-old cows made a good class, at the head of which was Princess Patricia Rooker.

Madolin Duchess Favorit, a strong heifer in the quarters and barrel, was placed first in the class for two-year-olds, and the winner of the senior yearlings was Princess Rooker Vale, a typey thing sired by the champion bull. Another heifer from the Island, Mary Mercena Jewel, was first in the junior yearlings. She was good in conformation but not too well fitted.

Awards.—Aged bull: 1, Lea, on Ida Rooker's 2nd Dale; 2, Harding, on Colony Poet Jake. Bull, 2 years: 1, Harding, on Sir Favorit Schuiling; 2, McCabe. Bull, senior yearling: 1, Harding, on Percilla Schuiling Posch; 2, Dickie, on Prince Colantha Canary B.; 3, Lea, on Sir Robert Rooker. Bull, junior yearling: 1 and 2, Lea. Calf: 1, Lea; 2, Harding; 3, Dickie. Dry cow, aged: 1 and 2, Dickie, on Miss Lahonda and Cobequid Helbon Nellie; 3, Harding, on Shadelawn Olinda 2nd. Aged cow, in milk: 1 and 3, Dickie, on Maggie Abbekerk and Cobequid Helbon Nellie; 2, Lea, on Island Maggie DeKol. Cow, 3 years: 1, Lea, on Princess Patricia Rooker; 2, Dickie, on Cobequid Helbon Ada; 3, Harding, on Netherland Posch Girl. Heifer, 2 years: 1, Harding, on Madolin Duchess Favorit; 2, Dickie, on Duchess Alice Segis; 3, McCabe. Heifer, senior yearling: 1, Lea, on Princess Rooker Vale; 2, Dickie, on Cobequid Fern Missie; 3, Harding, on Favorit Seventh's Posch. Heifer, junior yearling: 1, Lea, on Mary Mercena Jewel; 2, Harding, on Portia Favorit Posch. Heifer calf: 1 and 3, Dickie; 2 and 4, Harding; 5, Lea. Champion bull, Lea, on Ida Rooker's 2nd Dale. Champion female: Dickie, on Miss Lahonda. Aged herd: 1, Dickie; 2, Lea; 3, Harding. Junior herd: 1 and 3, Harding; 2, Lea. Sire and three of his get: 1, Lea. Cow and two of her progeny: 1, Lea. Four, the get of sire: 1, Lea; 2, Harding; 3, Dickie. Three the get of sire: 1, Lea; 2, Harding; 3, Dickie.

Guernseys.—The Guernsey has not been popularized in Ontario so much as have other dairy cattle, but in Nova Scotia they have gained a foothold and are now one of the leading breeds. Where attention is paid to them they develop into large, useful cows of grand quality, and their records in the United States show them to be heavy and economical producers of milk and butter. The three largest exhibitors were Roper Bros., Charlottetown, P. E. I., H. W. Corning, Chegoggin, N. S., and D. G. MacKay & Son, Scotsburn, N. S. In addition to this a few head were shown by Allison MacDonald and John MacDonald & Son, of Shubenacadie, as well as by T. D. Blakie and Faulkner & Hill, Great Village, N.S.

Championship in males went to the aged bull, Island Prince of Hillside, a strong sire of good dairy conformation.

The female champion was the winning senior yearling heifer, Dolly Charlotte. She was a sweet heifer with many promising characters.

Awards.—Aged bull: 1 and 2, Corning, on Island Prince of Hillside and Fillmore's King of Berwick; 3, MacKay, on Lord Trim. Bull, 2 years: 1, Roper, on Helen's Prince. Bull, senior yearling: 1, Roper, on Myra's Jim; 2, Corning, on Rose's King of Hillside. Bull, junior yearling: 1, Roper, on Topsy's Jess of Eastview; 2, Corning, on Beauty's King of Hillside; 3, Faulkner & Hill. Bull calf: 1, Corning; 2, MacKay; 3, Roper. Dry cow: 1, Roper, on Maudie of Eastview; 2, Corning, on Buttercup Blanche of Hillside; 3, MacKay, on Queen Bess of Dixie Land. Cow, 4 years, in milk: 1 and 2, Corning, on Dairymaid of Hillside and Lady Sunbeam of Hillside; 3, Roper on Helen. Cow, 3 years: 1 and 3, Corning, on Dairymaid's Primrose of Hillside and Beauty's Nancy of Hillside; 2, Roper, on Beauty of Eastview 3rd. Heifer, 2 years: 1, Corning, on Pink Rose of Hillside; 2, Roper, on Jennifer of Willow; 3, MacKay, on Beauty of Spruce Grove. Heifer, senior yearling: 1, Roper, on Dolly Charlotte; 2, MacKay; 3, Corning, on King's Blanche of Hillside. Heifer, junior yearling: 1, Corning, on Princess Dairymaid of Hillside; 2 and 3, Roper, on Jennifer's Dolly 2nd and

Beauty's Queen. Heifer calf: 1, Corning; 2 and 3, MacKay. Champion bull; Corning on Island Prince of Hillside. Champion female: 1, Roper, on Dolly Charlotte. Aged herd: 1 and 3, Corning; 2, Roper. Young herd: 1, Roper; 2, Corning; 3, MacKay. Bull and three of his get: (1, Corning. Cow and two of her offspring: 1, Corning.

Jerseys.—The competition in Jerseys was mostly between the herds of H. S. Pipes & Son, Amherst, N. S., and Cann Bros., Chegoggin, N. S. Blake Bros. of Shubenacadie and Thos. C. Latham, Sylvester, N. S.; each had a few head and won some of the prize money. Cann's herd was in very good fit, but Pipes' entries proved slightly superior in show merit.

His Reverence, the winning aged bull and grand champion, carried a good shoulder and was pliable in the skin. Figgis's Fox's Gem Fox, which was second, had splendid capacity and excellent quality. The only two-year-old out was Bright Knight, by Bright Prince. He has many of his sire's good qualities and is a promising bull. The winning senior yearling was Ben Blue, sired by His Reverence and out of the champion female of the breed. The dry-cow class called out some good individuals. It was won by Liberty Pink, a cow of good quality. Cann was second with Nellie of Drafan, last year's champion. She is both a show cow and a producer with a record of over 600 lbs. of fat as a three-year-old.

The aged cows in milk were led by Blood's Choice, one got by Blue Blood of Dentonia. She had been milking ten months and did not show her udder to advantage, but her veining was well marked. She was made female champion over all ages. Foxhall's Queen was the second-prize winner and last year's winner of the dry class. Lady Maud H. came third. She too has proved herself a good producer of milk and butter.

Fox's Flossie was proclaimed the best of the three-year-old cows. She had been milking a long period and was not in bloom, but she was typey and had good conformation.

Awards.—Aged bull: 1, Pipes, on His Reverence; 2, Cann, on Figgis's Fox's Gem Fox; 3, Blake. Bull, 2 years: 1, Bright Knight. Bull, senior yearling: 1, Pipes, on Ben Blue; 2, Cann, on Signor Breni. Bull, junior yearling: 1, Cann, on Lord Kitchener; 2 and 3, Pipes. Bull calf: 1, Pipes; 2, Cann; 3, Latham. Dry cow: 1, Pipes, on Liberty Pink; 2, Cann, on Nellie of Drafan; 3, Pipes. Cow, 4 years, in milk: 1, Pipes, on Blood's Choice; 2 and 3, Cann, on Foxhall's Queen and Lady Maud H. Cow, 3 years: 1 and 3, Cann, on Fox's Flossie and Maud's Buttercup; 2, Pipes, on Brampton Winnie. Heifer, 2 years: 1 and 3, Pipes, on Brilliant Jet and Special Luck; 2, Cann, on Florence Cann. Heifer, senior yearling: 1 and 3, Pipes, on Just It and All Gold; 2, Cann. Heifer, junior yearling: 1, Cann, on Miss Malinda; 2 and 3, Pipes, on Cressey and Miss Perfect. Heifer calf: 1 and 2, Pipes. Champion bull: Pipes, on His Reverence. Champion female: Pipes, on Blood's Choice. Aged herd: 1, Pipes; 2, Cann. Young herd: 1, Pipes; 2, Cann. Bull and three of his get: 1, Pipes; 2, Cann. Cow and two of her offspring: 1, Pipes; 2, Cann.

BEEF CATTLE.

At the Halifax Exhibition beef cattle usually stand out prominently against the different classes of stock, but this year the breeders of Ayrshires, Holsteins and Guernseys eclipsed them by the showing they made. The entries in some of the beef classes were not too well fitted, but this was true in all breeds for the small number of exhibitions in the Maritime Provinces this year was no incentive to extensive preparations. Lack of help, sickness in some cases, and other factors, combined to bring down the exhibit of beef breeds below their normal standard. The awards were made in this department by Chas. Calder, Brooklin, Ont.

Shorthorns.—The Shorthorn exhibit was not so heavy this year as it has formerly been. Two exhibitors, J. M. Laird & Son, Kelvin Grove, P. E. I. and A. N. Griffin, New Minas, N. S., afforded the competition. The Island herd was stronger in numbers and won the lion's share of the money.

Stately Monarch by Proud Monarch was the only aged bull present and was made champion over the younger entries. The sire of this bull is well known to breeders in Ontario. The champion at this fair has good character, is straight in his lines smooth an all-round good bull. Prince Charlie and White Monarch, the first and second prize senior calves were sappy young fellows.

The champion female was found in the two-year-old heifer class where Allandale Rosedrop was first and Scotch Lady 2nd was second. The winning heifer showed more character about the head but Scotch Lady 2nd was deep and straight in her lines. White Wings 2nd and Roan Peach the winning senior and junior yearlings respectively were promising young females.

Awards.—Aged bull: 1, Laird, on Stately Monarch. Bull, senior calf: 1 and 2, Griffin, on Prince Charlie and White Monarch. Bull, junior calf: 1, Griffin, on Willow Glen Monarch; 2, Laird, on Kelvin Prince. Aged cow: 1, Laird, on White Blossom. Cow, 3 years: 1, Laird on Peach. Heifer, 2 years: 1 and 3, Laird, on Allandale Rosedrop and Annie Laurie; 2, Griffin, on Scotch Lady 2nd. Heifer, senior yearling: 1 and 2, Griffin, on White Wings 2nd and Lady Stately; 3, Laird, on Lee Anna. Heifer, junior yearling: 1 and 2, Laird, on Roan Peach and Emily of Edgewood. Heifer, senior calf: 1, Laird. Junior calf: 1, Laird; 2 and 3, Griffin. Champion bull: Laird, on Stately Monarch. Champion female: Laird, on Allandale

Rosedrop. Aged herd: 1, Laird. Junior herd: 1, Griffin.

Herefords.—William O'Brien & Sons, Windsor, N. S. showed about twenty head of pure-bred Herefords and a number of grades. They had no competition in this breed which usually brings out several breeders at Halifax. Princeps 33rd by Princeps 22nd was made champion bull. He was exhibited in the aged class. The champion female was Helena, a three-year-old cow sired by Rupert Ingleside 4th.

Aberdeen Angus.—Horne Bros., Winslow, Sta., P. E. I., exhibited fourteen head of Aberdeen-Angus, but had no competition.

Devons.—Wm. Pinkney, Melborne, N. S., was the only exhibitor of Devon cattle.

HORSES.

Of the draft breeds Clydesdales were outstanding. The two most extensive exhibitors were McFarlane Bros., Fox Harbor Point, N. S., and R. A. Snowball, Chatham, N. B. Eight aged stallions were forward and first place went to Snowball's entry, Baron's Own by Baron's Pride. Sharp and McNeil, Windsor, N. S., had the second-prize candidate in Gold Nugget by Scottish Crest. McFarlane Bros., were third and fourth with Borland Crest and Baron's Squire. The former horse is by Scottish Crest and the latter by Baron's Pride. Snowball also won in the two-year-old stallion class with Kelvin's Pride. This animal was ultimately made grand champion. The first-prize yearling stallion and reserve champion was Jock of Glendhort shown by McFarlane Bros. Nell Bowie by Golden Chief was the winning yearling mare and champion female. She too was exhibited by McFarlane Bros., who added to their list of winnings second in the brood mare class on Bess Spencer by Sir Spencer and a first on the same mare's filly foal. They also had the first two-year-old filly and second yearling. Snowball showed the first-prize brood mare Rose of Litterty.

The champion Hackney stallion came from the Chatham stables and is known as Filgrove Royal John. All Fire the champion Hackney pony was shown by the same exhibitor. Hywel's Queen Rose was champion Hackney female for Barton Mitchell, Halifax.

In heavy draft horses in harness Frank Archibald, Truro, N. S., showed a splendid heavy team that attracted considerable attention.

SHEEP AND SWINE.

A fair exhibit of sheep occupied the pens and many different breeds were represented. The principal exhibitors were as follows—Lincolns: A. Boswell, French Fort, P. E. I., and Wm. Pugsley, Minudi, N. S.; Leicesters: Lane Boswell and A. Boswell, Pownal, P. E. I., and John Retson, Truro, N. S.; Cotswolds: John Tweedy, Earncliff, P. E. I.; Cheviots: Cephas Nunn, Winslow Rd., P. E. I. and Robt. Furness, Vernon, P. E. I.; Oxfords: J. E. Baker & Sons, Barronsfield, and J. M. Laird & Son, Kelvin Grove, P. E. I.; Hampshires: Cephas Nunn and Almond Boswell, Marshfield, P. E. I.; Suffolks: Horne Bros., Winslow, P. E. I. Southdowns: J. E. Baker & Sons; Oliver Saunders, Winslow, and Elizah Saunders Winslow; Shropshires: Geo. Boswell, French Fort; Dorsets: Geo. Boswell, French Fort and A. C. Servant, Overton, N. S.

The principal exhibitors of swine were—Berkshires: J. R. Semple, Tatamagouche, N. S.; McFarlane Bros., and A. C. Servant, Overton; Yorkshires: E. C. Griffin, Port Williams, N. S. and Roper Bros.; Chester Whites: Howard Corning and Jas. Nicholson, Halifax; Duroc Jerseys: G. E. Baker & Sons.

A New Agricultural School for Eastern Ontario

A new agricultural school is to be established through the Ontario Department of Agriculture for the purpose of serving a large proportion of Eastern Ontario. It is to be located on land which has been secured adjacent to the town of Kemptville, in the County of Grenville. Plans for the buildings and for organizing the work are being undertaken at once. It is anticipated that the total capital cost will be in the neighborhood of \$100,000, to be financed with the aid of monies received under the Federal Agricultural Instruction Act, an agreement to this effect having just been approved by the Minister of Agriculture at Ottawa.

"The purpose of the school," said the Hon. J. S. Duff, Minister of Agriculture, is to make more available practical education in agriculture and domestic science at a point which will be readily accessible, and involve a minimum of expense to the students. It is not proposed to duplicate anything already being done in the Province, unless it is to some extent the first two years of the course at the Ontario Agricultural College. Our experience in District Representative work has shown that there is a large number of young men between the ages of sixteen and twenty-five who have left school, and yet who would like to take advantage of further education in their chosen vocation if it can be secured reasonably conveniently. There has also been indicated a demand for education in Domestic Science among the young women in the rural districts, and it is the intention of this enterprise to meet this demand as far as it is possible to in this institution.

"Although the details of the courses will be determined later in conference with O. A. C. officials, I may say that it is our intention to make the courses as useful and practicable as possible. In agriculture there will be no course longer than two years, and there will also doubtless be a number of short courses. It is possible that the term will extend for only about five months in the winter season, and a diploma granted at the end of two terms. While arrangements might be made to have this diploma entitle a student to admission to the Ontario Agricultural College if he desired to enter the College at the third year, it would nevertheless be the main purpose of the school to further qualify men and women for better work on their own farms and homes. The land in connection with the school, except that which may be needed for experimental purposes, will be used as a practical farming proposition putting in use the best methods available. No doubt in this institution Dairying will be the line adopted, so as to render the maximum service to the community which is so largely engaged in this industry. The course in Domestic Science would, no doubt, at the outset at least be mainly short courses of perhaps three months' duration.

"In selecting a site considerable care has been exercised. It was, of course, obvious at the outset that an institution of this kind should be located in Eastern Ontario. Different localities were considered, but the present selection was finally adopted on the recommendation of officers of the Department who investigated the matter. Kemptville, which is a progressive town in the heart of a very thrifty agricultural section, is admirably served by railways from the north, south, east and west, and thereby immediately serves the Counties of Dundas, Carleton, Russell, Leeds, Lanark and Grenville, but it is also splendidly convenient to the majority of the counties of Eastern Ontario. The farm practically joins the town. It is crossed by the Prescott and Ottawa C. P. R. line, and is butted on the south by the Toronto and Montreal main line, and also fronts on the proposed Ottawa-Prescott highway. While there are splendid

transportation facilities it is also true that the whole surroundings and atmosphere is rural in nature, and, therefore, affords the proper setting for an institution of this kind.

"Plans are under way for the necessary buildings and equipment. There will be one main building of considerable size which will afford class rooms and laboratories. There will also doubtless be other smaller buildings for live stock and seed work as well as the usual farm buildings. It is not proposed to erect dormitories, as excellent board and lodging can be secured in the town at reasonable rates. Just how rapidly the work of construction can be pushed forward may depend somewhat on the progress of the war, but in any event it is expected that this institution will be ready to take an important place in the after-war development policy of the Government."

Horses Versus Tractors in War.

EDITOR "THE FARMER'S ADVOCATE":

Columns have been written to show that horses and mules are no longer needed in war. Every metropolitan daily has been flooded with press notices of the elimination of Dobbin and his ally, the mule. The value of automobiles and tractors, and their ability to go across deserts and mountain trails where jackrabbits could scarcely progress, has been blazoned to the world by writers whose talents should be devoted to writing best sellers a la Chambers. It may bring some of these disciples of Munchhausen to earth to peruse the following figures. The United States Government, through the Bureau of Foreign Commerce, has definite, detailed data on exports. Such data has been furnished the writer:

From September 1, 1914 to June 1, 1916, the United States exported 30,411 commercial automobiles, valued at \$81,295,986.00; 69,803 passenger automobiles, valued at \$57,623,261.00, and 22,502 motorcycles, valued at \$4,202,887.00—a grand total of 122,716 motor driven vehicles, all kinds, with a total value of \$143,122,124.00.

Against these exports, which have caused the motor-driven knights of the fountain pen to indulge in ecstatic paeans of joy, regarding the elimination of horses and mules, the cold figures show that during the same period—September 1, 1914 to June 1, 1916—611,790 horses, valued at \$134,943,456.00, and 167,387 mules, valued at \$34,198,955.00, were exported—a total, in value, of \$169,142,411.00.

This overshadows, very handsily, the total of exports of motor-driven vehicles. To the exports of horses and mules, however, we must add the exports of wagons valued at \$2,461,611.00; and of harness and saddles, valued at \$25,739,015.00.

The grand total for horses, mules, wagons, harness and saddles, exported during the 21 months ending June 1, 1916, comes to \$197,343,037.00—almost two hundred million dollars. This exceeds the exports of motor vehicles by more than fifty-four million dollars, and is conclusive evidence that horses and mules are far from being back numbers in war.

WAYNE DINSMORE.

Sec. Percheron Society of America.

Silo-filling has progressed favorably in Western Ontario during the past ten days. The corn was not, on most farms, a good crop but it has bulked up considerable feed and has gone in the silo in good condition. A severe frost did not injure the corn but it has been ensiled in drier condition than is usually the case. Too much moisture is not good.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts of live stock at Union Yards, West Toronto, Monday, Sept. 25 were 205 cars, 4099 cattle, 221 calves, 914 hogs, 1906 sheep, cattle of all kinds steady although quality very poor. Sheep, lambs and calves active at last week's closing prices. Hogs, slow, at 40 to 50 cents lower.

The total receipts of live stock at the City and Union Stock Yards for the past week were:

Table with 4 columns: Category, City, Union, Total. Rows include Cars, Cattle, Hogs, Sheep, Calves, Horses.

The total receipts of live stock at the two markets for the corresponding week of 1915 were:

Table with 4 columns: Category, City, Union, Total. Rows include Cars, Cattle, Hogs, Sheep, Calves, Horses.

The combined receipts of live stock at the two markets for the past week show an increase of 2,972 cattle, 3,924 hogs, 2,271 sheep, but a decrease of 14 cars, 45 calves, and 3,756 horses, compared with the corresponding week of 1915.

The quality of cattle did not improve any this past week, the majority being of poor quality, most classes sold lower than the previous week. Butcher steers were from 20c. to 30c. lower. Fat cows were in steady demand and sold as quoted below. Canners and cutters were also active. Bulls were steady, especially Bologne bulls. Stockers and feeders were strong, especially good quality animals. One firm which purchased 400 has an order for 4,000. Milkers and springers are active to firm. Lambs sold as high as \$11.20 on Monday, but with a run of nearly 5,000 on Thursday they declined to 9 3/4c. to 10c. per lb. Sheep were steady to firm. Calves were also in demand, and remained steady through the week. Hogs were strong and sold readily at \$12.65 to \$12.75 for fed and watered; \$12.75 to \$13.00, weighed off cars. Butcher Cattle.—Choice heavy steers, \$8.25 to \$8.50; good heavy steers, \$8

to \$8.25; choice, \$7.65 to \$8; good, \$7.25 to \$7.50; medium, \$6.60 to \$6.85; common, \$5.75 to \$6.25. Cows, choice, \$6.25 to \$6.50; good, \$5.80 to \$6.10; medium, \$5.50 to \$7.75; common, \$4.75 to \$5.25. Canners and cutters, \$3.50 to \$4.75. Bulls, best heavy \$7 to \$7.25; good, \$6 to \$6.75; common, \$5 to \$5.50. Stockers and feeders, \$5 to \$6.75. Milkers and springers, \$55 to \$100. Spring lambs, choice, 9 3/4c. to 10c. per lb.; common, 7c. to 8c. per lb. Light, handy sheep, 6 1/2c. to 8c. per lb.; heavy, fat sheep, 4c. to 5 1/2c. per lb. Veal calves, 6c. to 12c. per lb. Hogs, \$12.65 to \$12.75, fed and watered; \$12.90 to \$13, weighed off cars. Less \$3.50 off sows, \$5 off stags, \$2 off light hogs, and one-half one per cent. government condemnation loss.

Breadstuffs.

Wheat.—Ontario, No. 1 commercial, \$1.25 to \$1.28; No. 2 commercial, \$1.21 to \$1.24; No. 3 commercial, \$1.17 to \$1.20; No. 2 new crop, \$1.33 to \$1.35. Manitoba (track, bay ports)—No. 1 northern, \$1.67 1/2; No. 2 northern, \$1.65 1/2; No. 3 northern, \$1.63. Oats.—Ontario, No. 2 white, 52c. to 54c.; No. 3 white, 51c. to 53c.; Manitoba oats (track, bay ports)—No.

2 C. W., 58 1/4c.; No. 3, 57 1/2c.; extra No. 1 feed, 57 1/2c.; No. 1 feed, 56 1/4c. Barley.—Malting barley, 84c. to 87c., nominal; feed barley, 80c. to 82c., nominal. Peas.—According to freights outside; No. 2, \$2 to \$2.10, nominal. Buckwheat.—Nominal, 80c. to 82c. Corn.—American (track, Toronto), No. 2 yellow, 94c. Rye.—No. 2, new, \$1.13 to \$1.15; No. 1 commercial, nominal. Flour.—Manitoba first patents, in jute bags, \$8.60; second patents, in jute bags, \$8.10; strong bakers', in jute bags, \$7.90. Ontario, new, winter, according to sample, in bags, \$6.25, track, Toronto; new, according to sample, \$6.15, bulk, seaboard.

Hay and Millfeed.

Hay.—New, No. 1, per ton, \$10 to \$12; No. 2, per ton, \$9 to \$9.50. Straw.—Car lots, per ton, \$7 to \$8, track, Toronto. Bran.—Per ton, \$26. Shorts.—Per ton, \$29. Middlings.—Per ton, \$30. Good Feed Flour.—Per bag, \$2.25.

Country Produce.

Butter.—Butter advanced one cent per lb. all around on the wholesales

THE ROYAL BANK OF CANADA

Capital Authorized - - \$ 25,000,000
Capital Paid Up - - - 11,785,000
Reserve Funds - - - 13,236,000
Total Assets - - - 214,000,000

HEAD OFFICE: MONTREAL

Branches throughout every Province
of the Dominion of Canada

Accounts of Farmers
Invited
Sale Notes Collected

Savings Department at all
Branches

during the past week. Creamery, fresh-made lb. squares, 37c. to 38c. per lb.; creamery, solids, 35c. to 36c. per lb.; separator dairy, 33c. to 34c. per lb.; dairy, 30c. to 31c. per lb.

Eggs.—New-laid eggs in cartons remained stationary on the wholesales during the past week; the case lots of fresh ones advancing one cent per dozen, and selects, in case lots, from one to two cents per dozen. Eggs, new laid, in cartons, 40c. per dozen. The case lots are now selling at 36c. per dozen, and 39c. for selects.

Cheese.—Old, 24c. to 25c. per lb.; new, 23c. per lb.

Poultry.—Spring chickens and ducks sold at about steady prices. Live weight—spring chickens, 16c. per lb.; spring ducks, 12c. per lb.; turkeys, young, 20c. Fowl, 4 lbs. and over, 14c. per lb.; fowl, under 4 lbs., 13c. per lb.; squabs, per dozen, \$3.50 to \$4 (dressed).

Hides and Skins.

Lamb skins and pelts, \$1 to \$1.50; sheep skins, city, \$2.50 to \$3.50; sheep skins, country, \$1.50 to \$3; city hides, flat, 20c.; country hides, cured, 18c.; country hides, part cured, 17c.; country hides, green, 16c.; calf skins, per lb., 25c.; kip skins, per lb., 22c.; horse hair, per lb., 38c.; horse hides, No. 1, \$5 to \$6; horse hides, No. 2, \$4.50 to \$5.50; tallow, No. 1, 6½c. to 7c.; wool, washed, 42c. to 46c.; wool, rejections, 35c. to 38c.; wool, unwashed, 32c. to 35c.

Wholesale Fruits and Vegetables.

Receipts were exceptionally heavy on the wholesale fruit market during the past week, the greater part consisting of peaches.

Peaches continued to come in in large quantities and gradually weakened in price, selling as follows: 6-qt. flats, 15c. to 25c.; 6-qt. lenos, 20c. to 35c.; 11-qt. flats, 20c. to 42c., a few bringing 50c.; 11-qt. lenos, 25c. to 75c., with a few extra choice ones bringing 80c. and 85c.

Plum shipments decreased and they firmed slightly in price; the 11-qt. basket selling at 35c. to \$1, and the 6 qts. at 25c. to 35c.

Pears continued to be rather a slow sale at 15c. to 25c. per 6-qt. basket, and 20c. to 45c. per 11 qts., with a few extra choice ones bringing 50c. to 75c.

Melons were shipped in smaller quantities and brought slightly higher prices; the 11 qts. selling at 50c. to 85c., and the 16 qts. at 60c. to \$1.

Grapes came in freely and sold at 17½c. to 25c. per 6-qt. basket, and 40c. to 50c. per 11-qt. leno basket.

Tomatoes were rather scarce towards the end of the week and brought higher prices; the 11-qt. flats selling at 35c. to 50c., and the 11-qt. lenos at 50c. to 60c.; the 6-qt. flats selling at 22½c. to 25c., and 6-qt. lenos at 30c. to 35c. Green tomatoes being shipped in small quantities sold at 25c. to 30c. per 11-qt. basket.

The first car of turnips this season arrived on the market Thursday and sold at the high price of \$1.25 per bag; just twice as much as they usually do at this season of the year.

Parsnips began to come in in small lots, selling at 40c. to 50c. per 11-qt. basket.

Carrots and beets remained stationary in price, selling at \$1.35 per bag.

Cabbage also sold at about the same

price as a week ago—namely, \$1 per dozen, and \$3.50 per case.

Celery.—The local celery was of very poor quality and difficult to sell at lower prices—bringing 20c. to 40c. per dozen bunches. The Brighton variety being of much better quality and selling at 50c. per dozen for No. 2, and 90c. per dozen for No. 1 grade; while British Columbia sold at \$2.50 to \$2.75 per case containing from 46 to 54 bunches.

Onions remained high priced; the Indianas selling at \$3.50 to \$3.75 per 100-lb. sack; Leamingtons, \$2.75 per 75-lb. sack; Spanish, \$4.50 per case.

Pickling onions were quite firm at \$1.50 to \$2 per 11-qt. basket.

Potatoes at last declined; the New Brunswick Delawares selling at \$1.85 to \$2 per 90-lb. sack, and British Columbias at \$1.75 per 90-lb. sack.

Green peppers, after being quite scarce, came in more freely and materially declined in price, selling at 50c. to 75c., and a few at 90c. per 11-qt. basket.

Red peppers kept firm at \$1 to \$1.50 per 11-qt. basket.

Corn varied greatly in quality and price, selling at 10c. to 25c. and 30c. per dozen.

Gherkins firmed in price; the 6-qt. baskets selling at 50c. to \$1.25, and the 11 qts. at 75c. to \$1.25 and \$1.50 to \$2, according to size.

Montreal.

The market for cattle was steady last week. The cooler weather brought out an improved demand from packers and butchers, and offerings were readily absorbed. No really choice steers have been offering of late, but good steers have been arriving in sufficient numbers to supply wants. These sold at 7½c. to 7¾c. per lb. Fair animals were quoted at 6½c. to 7¼c., and common ranged all the way down to 5½c. Butchers' cows were 5c. to 6c. for ordinary and up to 6½c. for best, while butchers' bulls were 5c. to 6c. for common and up to 6¾c. for best. Canning cattle were in good demand, and bulls sold at 4½c. to 5c. for the choicest, while cows brought 3¾c. to 4¼c. per lb. The United States is an active buyer of lambs in this market, and quite a large quantity have been shipped out of the country as a consequence. The local demand was also brisk, so that an active trade was done. Ontario lambs were 10c. to 10½c. per lb., and Quebec 9¼c. to 9½c. per lb. Demand for sheep was fair and prices steady at 6½c. to 7c. Calves were not so plentiful, and choice stock sold at 9c. to 10c., lower grades ranging down to 4c. per lb. There was a good demand for all the hogs offered, and choice lots sold at 12½c. to 12¾c., with fine at 12¼c. to 12½c., and mediums to heavies at 10½c. to 11½c. per lb., weighed off cars.

Horses.—There was no change in the market. Heavy draft horses weighing 1,500 to 1,700 lbs., were still quoted at \$200 to \$250 each; light draft, weighing 1,400 to 1,500 lbs., \$150 to \$200 each; small horses, \$100 to \$125 each, and culls, \$50 to \$75 each. Fine saddle and carriage horses were \$200 to \$250 each.

Dressed Hogs.—The market for dressed hogs was active, demand being good, and the tone of the market firm. Abattoir, fresh-killed stock was higher than the previous week, being 16¾c. to 17c. for choice.

Potatoes.—Deliveries were still very light. New Brunswick Irish Cobblers sold here in car lots at \$1.55. A range to cover all qualities was \$1.50 to \$1.60 per 90 lbs., in carloads. These sold at \$1.80 to \$1.90 per 80 lbs. in a smaller way. Very few Quebec potatoes were offered, and these were sold on the farmers' market.

Honey and Maple Syrup.—There was a fair demand for honey and prices were steady at 15c. for white clover comb; 12½c. to 13c. for white extracted and brown clover comb, while brown extracted was 10½c. to 11c. Buckwheat honey was 9c. to 10c. per lb. Maple syrup was neglected at 85c. to 90c. per 8-lb. tin; \$1 to \$1.10 per 10-lb. tin; \$1.25 to \$1.50 per 13-lb. tin, according to quality. Pure maple sugar was 9c. to 12c. per lb.

Eggs.—Supplies were light and prices very firm. There has been a lot of export this year. Strictly new-laid eggs

were quoted at 45c., while No. 1 selected were 38c.; No. 1 candled, 34c., and No. 2 candled, 30c. per dozen.

Butter.—The market was exceedingly strong and export is going on. Prices were still steady at 36c. to 36½c. per lb. for finest creamery, and ½c. less for fine. Undergrades were 34c. to 34½c. Dairy butter brings 27½c. to 28c., according to quality.

Cheese.—Prices were at a record for this time of year. Finest Western colored was 20½c. to 20¾c., and white ¼c. less. Finest eastern colored was 19¾c. to 20¼c., with white 19½c. to 19¾c.

Grain.—No great change took place in the market for oats, No. 1 Canadian Western being 60½c.; No. 2, 60c.; No. 3, 59½c.; No. 1 feed, extra, 59½c.; No. 1 feed, 59c., and No. 2 feed, 58½c., ex-store.

Flour.—Prices were unchanged. Manitoba first patents were \$8.70 per barrel; seconds \$8.50, and strong bakers', \$8, in bags. Ontario 90 per cent. patents are \$7.20 to \$7.50 per barrel, in wood, and \$3.40 to \$3.55 per bag.

Millfeed.—The market was steady at \$26 per ton for bran, in bags; shorts, \$28; middlings, \$30; pure grain mouille, \$34 to \$35; mixed, \$32 to \$33.

Baled Hay.—The market was unchanged at \$13 per ton for No. 2 hay; \$11.50 for No. 3, and \$10.50 for clover mixed.

Hides.—Lamb skins were up to \$1.35. Calf skins were 30c. per lb. for No. 2, and 32c. for No. 1. Beef hides, 21c., 22c. and 23c. per lb. for No. 3, 2 and 1. Horse hides were \$1.50 each for No. 3; \$2.50 for No. 2, and \$3.50 for No. 1. Tallow, 8c. per lb. for rendered, and 2½c. for rough.

Buffalo.

Cattle.—Liberal receipts of cattle at Buffalo last week—the week starting on Monday with 5,000 head. Chicago showed 22,000, Kansas City 35,000, and Jersey City 2,500.—too many of the one kind of a fair, medium and handy weight steers, as a result of which these grades sold fully fifteen cents to a quarter lower than for the preceding week. Shipping steers sold at steady to a shade lower prices, best native shipping steers reaching \$9.85, not a prime kind at that, while the Canadians, which made up the bulk of the crop, ran from \$8.25 to \$8.85 generally, and with the exception of a couple of loads of the better kinds, the Canadians ran mainly to a fair class. Canadian supply was large, making up nearly half of the Monday receipts. On butchering cattle, the trade looked steady to a dime lower, and canners and cutters, bulls and milchers and springers sold at about steady prices. Heavy heifers ranged from \$7.50 to \$8; handy, fairish kind of butchering heifers from \$6.50 to \$6.75; generally, and canners, of which there were fifteen loads, ranged from \$3.75 to \$3.85 generally, some strong weight kinds, with a few cutters in, reaching \$4.15 to \$4.20. Best bulls sold up to \$7.25; yearling bulls up as high as \$7.50 to \$9. Springers reached \$110. Stockers and feeders were mostly of a common kind and ruled slow, best feeders selling at seven cents. More of the choice grades were wanted. Present demand calls for the choice grades, these kinds finding ready sale, but the half fat, commonish, grassy kinds, which are in abundance, are slow to move. Receipts last week totaled 5,425 head, as against 5,200 head for the preceding week, and 3,300 for the corresponding week last year. Quotations:

Shipping Steers.—Choice to prime natives, \$9.50 to \$10.25; fair to good, \$8.75 to \$9.25; plain, \$8.25 to \$8.60; very coarse and common, \$7.60 to \$8; best Canadian, \$8.50 to \$9.35; fair to good, \$8 to \$8.50; common and plain, \$7.50 to \$8.

Butchering Steers.—Choice heavy, \$8.50 to \$9; fair to good, \$8 to \$8.50; best handy, \$8.50 to \$9; fair to good, \$7.25 to \$8.25; light and common, \$6.50 to \$7; yearlings, prime, \$9.25 to \$10; fair to good, \$8 to \$8.75.

Cows and Heifers.—Best handy butcher heifers, \$7.50 to \$7.75; common to good, \$6.50 to \$7.25; best heavy fat cows, \$6.75 to \$7; good butchering cows, \$6 to \$6.50; medium to fair, \$5 to \$5.50; cutters, \$4 to \$4.25; canners, \$3.50 to \$3.75.

Bulls.—Best heavy, \$6.75 to \$7; good butchering, \$6.25 to \$6.50.

Stockers and Feeders.—Best feeders, \$7 to \$7.25; common to good, \$6.25 to \$6.75; best stockers, \$6.75 to \$7; common to good, \$5.50 to \$6.25.

Milchers and Springers.—Good to best, in small lots, \$80 to \$100; in carloads, \$70 to \$75.

Hogs.—Prices were on the decline last week. Monday, which was the high day, top was \$11.75, other sales ranged from \$11.40 to \$11.65, with some common hogs down to \$11, and pigs landed generally at \$9.75. Tuesday's market was five to ten lower on best grades, with pigs selling a quarter higher, Wednesday's trade was steady with Tuesday; Thursday, best grades dropped five to ten cents, with pigs selling steady, and Friday, values went off ten to fifteen cents, top being \$11.40, with bulk selling at \$11.20 and \$11.25. Pigs, which were hit the hardest, ranged down to \$9.50 and \$9.75. Roughs, the fore part of the week sold up to \$10, and on Friday's market best sows sold from \$9.50 to \$9.75, with stags \$8.25 down. For the entire week the run reached around 21,800 head, as against 26,685 head for the week previous, and 23,000 head for the same week a year ago.

Sheep and Lambs.—Last week started with top lambs selling generally at \$11.75, culls ranged from \$9.75 down, and skips sold as low as \$7. After Monday, however, the demand was light, and this resulted in a slow and lower trade. Tuesday's top was \$11.50; Wednesday and Thursday buyers got best lambs at \$11.25 and \$11.35, and Friday bulk sold at \$11.25. Cull lambs sold steady with Monday, and sheep, which were in light supply, also ruled steady the entire week. Top wethers are quotable up to \$8.25, and ewes sold from \$7 to \$7.75; weighty ones, kinds that have been selling around \$7 and \$7.25, bringing up to \$7.50. Last week receipts reached 18,800 head, as compared with 15,559 head for the previous week, and 14,300 head for the same week a year ago.

Calves.—The first three days of last week top veals sold at \$13, with culls \$11 down; Thursday values were a quarter higher, and Friday, under a red-hot demand, best veals sold as high as \$14 and \$14.50, with culls selling as high as \$12. Two decks of Canadian calves were on Friday's market, and the top veals out of these sold at \$13.50, with the culls from \$11.25 down. Heavy fat calves sold around \$9 and \$9.50, and those that were rough landed down around \$7 and \$7.50. Light grassers brought up to \$6.50, and common, weighty, grass calves sold as low as \$4.50 and \$5. Receipts last week were 2,000 head, being against 2,685 head for the week before, and 1,850 head for the same week a year ago.

Chicago.

Cattle.—Beeves, \$6.50 to \$11.30; western steers, \$6 to \$9.25; stockers and feeders, \$4.60 to \$7.65; cows and heifers, \$3.50 to \$9.20; calves, \$8.50 to \$13.

Hogs.—Light, \$10.10 to \$11.25; mixed, \$10.10 to \$11.30; heavy, \$10 to \$11.50; rough, \$10 to \$10.20; pigs, \$7 to \$10.

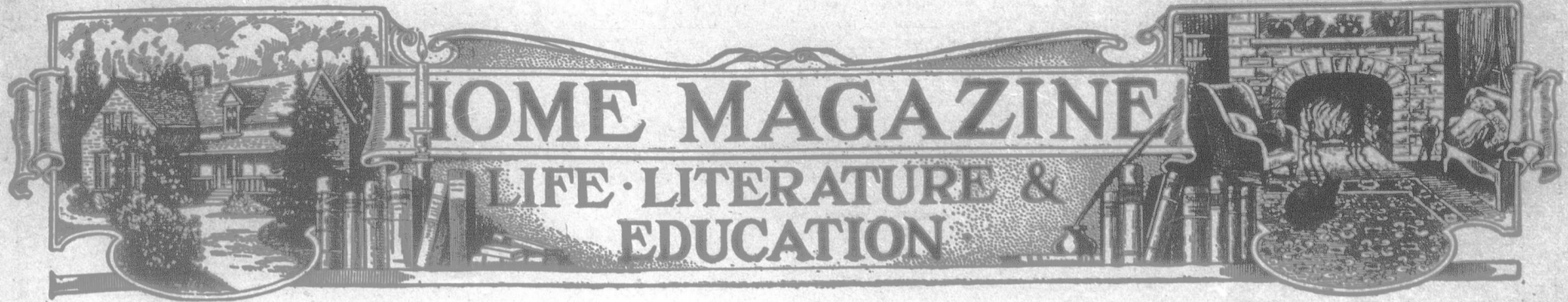
Sheep.—Lambs, native, \$6.75 to \$10.65.

Cheese Markets.

St. Hyacinthe, Que., 20c.; London, bidding, 19c. to 20-16c.; Belleville, 20¾c.; Kemptville, 20¾c.; Montreal, finest westerns, 20¾c. to 21c.; finest easterns, 20¼c. to 20½c.; New York, specials, 19¾c. to 20c.; average fancy, 19¼c.

72 Jerseys for Sale.

Breeders wishing to secure high-class Jerseys should attend the auction sale at the farm of Geo. W. A. Reburn, North Hatley, Quebec, on Wednesday, October 4. The farm is situated 4 miles south of the village near Sherbrooke on the Boston-Maine Railway. A large number of cows in milk and two-year-old heifers that have been bred to noted sires are for sale. Look up the advertisement in another column of this issue, and for details regarding the sale write Mr. Reburn, R. R. 1, North Hatley, Quebec.



The House by the Side of the Road.

There are hermit souls that live withdrawn
 In the peace of their self content,
 There are souls, like stars, that dwell apart
 In a fellowless firmament,
 There are pioneer souls that blaze their paths
 Where highways never ran,
 But let me live by the side of the road
 And be a friend to man.

Let me live in a house by the side of the road
 Where the race of men goes by—
 The men who are good and the men who are bad
 As good and as bad as I.
 I would not sit in the scorner's seat
 Nor hurl the cynic's ban;
 Let me live in a house by the side of the road
 And be a friend to man.

I see from my house by the side of the road,
 By the side of the highway of life,
 The men who press on in the ardor of hope,
 The men who are faint with the strife,
 But I turn not away from their smiles,
 Nor their tears,
 Both parts of an infinite plan.
 Let me live in my house by the side of the road
 And be a friend to man.

I know there are brook-gladdened meadows ahead
 And mountains of wearisome height,
 That the road passes on through the long afternoon
 And stretches away to the night;
 But still I rejoice when the travellers rejoice
 And weep with the strangers and moan,
 Nor live in my house by the side of the road
 Like a man who dwells alone.

Let me live in a house by the side of the road
 Where the race of men goes by—
 They are good, they are bad, they are weak, they are strong,
 Wise, foolish—so am I.
 Then why should I sit in the scorner's seat
 Or hurl the cynic's ban?
 Let me live in my house by the side of the road
 And be a friend to man.
 SAM WALTER FOSS.

Social Service of Flowers.

BY MRS. R. W. LEADER.
 [Fall is the time in which to begin next year's flower garden. Mrs. Leader's article should be an inspiration to begin now.]

Driving along a country road one day in summer through a prosperous part of Ontario, I was struck with the number of beautiful houses of well-to-do farmers whose front yards were uncared for, not a shrub or flower to relieve the bareness, not a vine to shade the porches, not a well kept lawn, and I wondered why.
 Was it because there was no time for flowers? But I thought surely not for early in the Spring or in the Fall there are always days when a few hours could be spared to make a border around the house, and plant vines and shrubs. Was it because flowers need to be watered and often in the summer water is scarce on the farm, or was there no time for watering flowers? But no, it couldn't be that either, for shrubs and vines and perennials once planted need no

watering. They grow more beautiful every year with almost no care whatever.
 Then as I drove along I came to a small humble cottage by the side of the road and here were flowers of all descriptions: lilac, spirea, syringa, tall hollyhocks along the fence, big clumps of peonies, iris, poppies, Sweet William and many other old fashioned flowers, and the porch just covered with roses; and as I gazed at the beauty of it, I thought of that poem, "The House by the Side of the Road," and how it came to be written. The author, thirsty and tired from travelling along a dusty road, came in the turn upon a cottage, the yard of which was full of old fashioned flowers. Near by was a cool bubbling stream and above the water, painted on a rude board, he saw these words, "Are you thirsty?—Drink." Near by was a bench, and above it written, "Are you tired?—Rest awhile." Just over the fence was a well laden orchard and one of the boards, "Do you like apples?—Have some." While he was enjoying these surprises, an old man hobbled out. His kindly face encouraged the traveller to ask if he were the owner. He replied that he was and told how that since he and his wife did not themselves need all their bounty, it had occurred to her that they might share it, and he had painted the boards and hollowed out the spring's bed. They were not using the bench, so he had brought it out too. The simplicity and earnestness of the old man, who in his humble way, was giving social service, so appealed to the traveller that he wrote the poem; and I wondered if an old couple lived in that cottage among the flowers, and I thought if they had children, who had gone to homes of their own, how much more that home surrounded by flowers would live in the memory of those children, than a fine, large house with no shrubs, no roses, perhaps not even a lawn.

Young people are held more by the beauty of their surroundings than parents realize. Why not make the front yard more attractive? How much sweeter rest is on a vine-covered porch with the fragrance of roses in your nostrils than on a porch unscreeened from the hot rays of the sun.
 There are few people who do not like flowers, but a great many people, who think they take up too much time, therefore very busy people must do without them.
 Now a great many beautiful flowers require almost no care after they are planted. Annuals, that is flowers grown from seed, dahlias and gladioli bulbs need quite a lot of watering. The bulbs must be planted in the spring and taken up in the fall, and kept over the winter. They are very beautiful, but for those who have few spare hours, I would say "Do not attempt these." Plant shrubs, and perennials that will come up every year, need no watering and almost no care whatever, except weeding. They will even do well in spite of weeds. The green foliage of the shrubs, even when they are not in bloom looks so much better than the bare walls of a house.
 First have a good lawn. Few think they haven't time for that, but let me tell you that shrubs and perennials take far less care than a lawn. Then frame in your house and along your fences with shrubs and vines. Do not make flower beds or cut up the lawn in any way, except as a border to your house. Plant the old standard varieties such as lilac, syringa, spirea, hydrangeas, Japan quince, flowering crabs, ferns, peonies, daffodils, tulips, larkspur, iris, oriental poppies, shasta daisies, gaillardia, phlox, and any of the well-known kinds that are suitable for your community. There are so many to choose from that one may have flowers from April till October. These are all hardy, require no covering

in the winter, and I have found they do splendidly when planted in the Fall. I do not think any of the ones mentioned are attacked by insects, so you can see that even very busy people, if they can spare enough time to do the planting can have flowers that will increase in size and beauty every year even for those that say they never have any "luck with flowers." An outlay of a few dollars means so much to the appearance of your home. If you are driving along the road, you may pass a beautiful house where no ornamental planting has been done and remark, "What a fine house," but you will go into ecstasies over a small cottage surrounded with roses, vines and flowers. A beautiful picture needs a suitable frame, and as the frame adds to the picture, so will a well-planted yard add to your house. The house that has a frame of trees, shrubs, vines and flowers will sell much more quickly and bring a better price than the one that looks bare and bereft.
 For those who can spare a little time to spray and keep down insects, I would urge you to have a rose garden. If you haven't time for many, have at least a few roses. Some one has said "A garden without roses is like a ring without jewels, but a garden of roses is ring and jewels all in one." Each bloom has its charm and the whole association is one of pure delight. When my roses are in bloom, I cannot wait in the morning until I have had my breakfast to go out to my roses to see what new beauties await me. They are so beautiful I feel well repaid for any time I spend on them. A writer says "A rose garden is one that is planted with roses, but a garden of roses is fairyland, where from June to November you may gather roses of fair blossoms, where at evening you may sit and dream sweet dreams as the cool breeze whispers with a soft caress and to your nostrils wafts a perfume indescribably sweet."



Yuccas—The Time to Begin a Garden is in the Fall.

Select an open sunny locality for your roses. If you are to plant them against a wall or close board fence, plant them so that they will get the morning sun which is much better than the afternoon sun, as it dries them up and burns them. Either spring or fall is suitable for planting roses. I prefer fall planting.

If you do not know the roses best suited for free flowering, if you set out those only grown with difficulty your disappointment will be great and you will have had your expense and labor for nothing. All roses should be planted deep, three inches above the crown, for they are all grafted on common briars, so if not planted deep, the briar grows and the graft dies, and you blame the nursery for selling you poor roses.

Among some of the most attractive roses are the hardy ever blooming Hybrid Tea. These hybrids were produced by crossing the dainty little tea rose with some of the June roses. The result was the delicate coloring and odor of the tea rose and the hardy ever-blooming properties of the common June rose. They need a little protection in winter, not so much against the cold as the alternate thawing and freezing. Heap the earth well up around the bush and cover with a few inches of leaves. Then remove or dig it in in the spring when all danger of severe frost is over.

The Hybrid perpetuals grow much larger and their blooms are larger, but they do not flower all summer as the Hybrid Tea roses do. But some of them bloom two or three times, often in the fall, and are well worth a place in every garden. They are hardy and vigorous and require no winter protection.

There is a place in every garden for one or more climbing roses, and their management is so simple that they should be used extensively. With the slightest attention they will give such abundance of bloom in June and July, and some kinds will bloom all summer. A spraying once a week of whale oil tobacco soap in water will keep the insects in check. A good dousing of soap suds will usually accomplish results. Begin this fall, spend some time beautifying your "house by the side of the road," and in so doing you will be well repaid, not only in the joy it will give you and yours for years to come, but also in the pleasure it will give the passer-by.

Christmas Stockings for Our Soldier Boys.

Fifteen thousand Christmas stockings! That is surely an order to stagger even Santa Claus himself! But the women of Canada are going to out-do him this year. They are planning to play Santa Claus to their soldier boys at the front, and as reindeer, pack and sleigh must be ready by the fifteenth of October, it is high time everyone was at work.

Yes, the women of Canada have determined that everyone of our gallant soldiers, whether lying on a bed of pain in a hospital or in the chill of his blood-bought trench, shall be reminded of home on Christmas morning, by finding at his side a really old-fashioned sock filled with "goodies". Of course every woman and girl who reads the Farmer's Advocate will want to have a hand in making and filling one; so here are the instructions, straight from headquarters.

"The stockings should be made of cheese-cloth, book-muslin or silesia. They should be cut the shape of a stocking, sixteen inches long from top of leg to back of heel, foot ten inches long."

"Sew very, very firmly. It is suggested that they contain: pocket-mirror, pocket pencil or pen; chewing-gum, chiclets, handkerchief, writing paper, chocolate, etc."

"Do not make the contents too expensive."

"Do not send matches or cigarettes in these stockings."

"The stockings should not be unduly large. Note carefully the size."

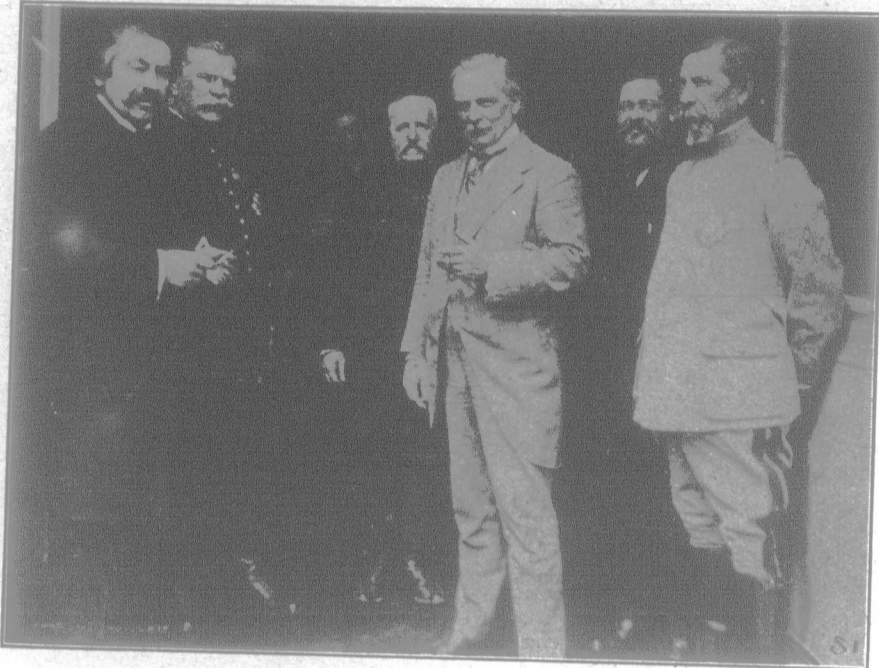
"The stockings should be sent to the nearest Red Cross centre before the fifteenth of October."

There are those who cannot make or fill stockings who would perhaps like to help. Donations of money or articles mentioned in the list will be just as acceptable.

The London Red Cross Society is making an heroic effort to send a grand

shipment of these stockings before the fifteenth of October and would be glad of help. Donations of money should be sent to Mrs. Cooper, Red Cross Treasurer, Hyman Hall, London, Ont. Donations in kind to Mrs. George M. Gunn, Hyman Hall, London, Ont.

And should you like to fill a sock without the trouble of making it, go to Hyman Hall, London and ask for one. The ladies are making them there as fast as their fingers can fly, gorgeous affairs they are too, made of strong scarlet net, so that the dear soldier lad will be able to see all sorts of delightful bulgy packages, even before he has time to open it.



The Great War Chiefs of England and France who planned the Drive of the Allies on the Western Front.

Reading from left to right: Aristide Briand, French Premier; General Joffre; General De Castlenau, Chief of the French General Staff; Lloyd George, Great Britain's Minister of War; M. Thomas, French Minister of Munitions and General Roques, French Minister of War.

"We had a bang-up dinner in the trenches on Christmas," wrote a gay Canadian boy, last year, "and if I'd had anything but a bayonet to hang my sock on, I'd have done it, and felt as if I were home."

Bless his gallant heart, making merry in the midst of all the horror and hardships of war! Well, this year his stocking is going to be hung up, by a pair of gentle hands in the home land—hung up and filled and delivered to him. And if many kind hands get to work at once not one of our boys will go unprovided for in this, we trust, their last Christmas on the battle field.



Cyclists at Camp Borden.

Of course there are many boys at the front and in our hospitals who will be amply provided for by their friends, but these gifts are for the soldiers who will receive no reminder of the season unless we send it to them. It will make our family Christmas dinner taste much more delicious, if when we gather around the table we recall that "Somewhere in France" there is a brave heart beating more happily under its khaki covering because of our kindness.

Fifteen thousand Christmas stockings to be filled before the fifteenth of October! How many are you going to fill?

MARIAN KEITH.

Hope's Quiet Hour

A Prayer for Beauty.

Let the beauty of the LORD our God be upon us: and establish Thou the work of our hands.—Ps. 90:17.

Oft in life's stillest shade reclining,
In desolation unrepining,
Meek souls there are, who little dream
Their daily strife an Angel's theme,
Or that the rod they take so calm

desires the beauty of each soul that He loves—and He loves all souls.

The psalmist greatly desired this hidden beauty of the soul when he prayed: "Let the beauty of the LORD our God be upon us." The writer of this 90th psalm was Moses—so the heading says. It is "a prayer of Moses the Man of God. Moses was such a beautiful baby—"exceeding fair"—that he captured the heart of Pharaoh's daughter and so was saved from death. But, even as a baby,—see marginal rendering of Acts 7:20,—he was "fair to God," as in later years he so earnestly desired to be.

We are right to pray for the beauty which God loves, but to glory in surface beauty is a sure road to disaster. The prophet Ezekiel was given a message of warning to the city of Tyre, which had announced in its pride: "I am of perfect beauty," It had boasted of its glorious ships, with embroidered linen sails of blue and purple, of its wonderful trade with all nations in spices, gems, wheat, etc. This beauty was real enough (though it was only "skin deep") for God's own witness to Tyre was: "Thou sealest up the sum, full of wisdom, and perfect in beauty. Thou hast been in Eden the garden of God. . . thou wast perfect in thy ways. . . till iniquity was found in thee."

There was the cancer which must quickly change beauty into loathsomeness. "Thine heart was lifted up because of thy beauty. . . I will cast thee to the ground. . . thou hast defiled thy sanctuaries by the multitude of thine iniquities. . . therefore will I bring forth a fire from the midst of thee, it shall devour thee, and I will bring thee to ashes upon the earth in the sight of all them that behold thee." —Ezek. 27: 28.

How easy it is to apply this terrible sentence of judgment to our enemies! What good does it do any of us when we listen to stern words of warning, and at once think how the sermon fits "Mr. Black," or "Mrs. White?" Do we humbly ask God to let His beauty of holiness shine out in ourselves and in our loved Empire? Or do we look down on others in our pretty individual conceit, or say boastfully that our navy "rules the waves"—forgetting that only righteousness can exalt a man or a nation? Our foolish pride may blind our eyes, as the pride of the Pharisee blinded him to his spiritual sins. He despised the Publican—what is God thinking of us when we find fault with other people? Are we measuring ourselves beside them, saying conceitedly: "I am much better than they are?" That was what the Pharisee did, and there is no beauty in that attitude.

There is an old legend of a man who walked quietly on his way, giving out his influence for good as unconsciously as a flower scatters fragrance or a star sends out light. An angel was sent to offer him some great gift. "Would you like to have power to heal the sick?" he asked.

"No," was the saint's answer, "for how can I tell if it is good for them to recover? God will heal them, if He sees best."

Then he was asked whether he would like to have marvellous power for the conversion of sinners, but he replied: "The Holy Spirit alone converts souls. God forbid that any should mistakenly ascribe such power unto me."

Then he was asked if he would like to shine forth as a model of holiness; but he shrank back, afraid lest he might be lifted up with spiritual pride. So a gift was given him in secret, and God's blessing followed his shadow. As he walked on, facing the light, his shadow fell behind him and was invisible to himself; but it became a benediction to others. Unknown to himself he cheered sad hearts, helped the discouraged and scattered hope and inspiration, wherever his shadow fell.

Of course this is only a parable of the unconscious power of character. We have all known men and women like this "Saint of the Holy Shadow." Such a wonderful gift of influence is within the reach of the poorest and most ignorant. But we can never obtain it by seeking to glorify ourselves. If our good deeds are done to be seen of men—to win admiration and praise—they are anything but lovely, and cannot beautify our souls.

We can't serve God and any other master. He will not accept a divided throne. The door of the citadel (the

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heart) must be flung wide open for the entrance of the King, and the will must be put unreservedly into His hands. Why should we fear to give Him full control, when He loves us with infinite tenderness? Let us lift up the gates, that the King of Glory may enter in, and let us serve Him loyally all our life through.

St. Paul says that our "bodies" are temples of the Holy Ghost. When God's Spirit is dwelling continually within a temple of flesh the Divine Light sometimes shines out visibly; for the body is a tent in which the soul dwells. It was said of Keble in his old age that "his face was like that of an illuminated clock: the colour and gilding had long faded away from the hands and figures, but the ravages of time were more than compensated for by the light which shone from within."

We have seen faces on which was written, by God's own hand, the peace which passeth all understanding. This beauty of God grows from within outward, and it is a tremendous witness for Christ. Sermons may fall unheeded on the ear, but a beautiful character rouses in the most hardened men and women a desire to be lovely too.

Someone has said: "It is not our fault if we are born homely, but it is our fault if we do not have a face of good cheer and hope when old."

May God give us beauty of self-sacrifice, such as thousands of soldiers and sailors are showing to-day. I have read that when "The Hogue" went down a sailor, who was in a boat, jumped overboard to make room for others; and would not allow himself to be rescued until all the men near by were picked up. He probably thought nothing of it. It is not when a man admires himself that he is most to be admired.

A thing may be very common and yet very beautiful. On one occasion a botanist was describing wild flowers. He declared that—from the botanical standpoint—the perfect flower was not rose or lily but the dandelion. I don't know how true that statement may be, but I do know that God has planted lovely human flowers in countless nooks and corners. Do we despise them, passing them by carelessly like dandelions, because they are common?

How can we win spiritual beauty? We become like the people we choose as our closest friends. Christ Jesus lived the one flawless Life of perfect beauty. He is "the chiefest among ten thousand" and "altogether lovely." He offers us His wonderful friendship, and wants to live with us in closest fellowship now and always. He has chosen you—have you chosen Him as your Friend?

"He is Man and Brother,
He is Lord and God,
And the way of sorrows
Is the path He trod."

DORA FARNCOMB.

Fashions Dept.

How to Order Patterns.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price fifteen cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, thirty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

When ordering, please use this form:—
Send the following pattern to:

Name.....
Post Office.....
Country.....
Province.....
Number of Pattern.....
Age (if child or misses' pattern).....
Measurement—Waist..... Bust.....
Date of issue in which pattern appeared.....



8834—Gown. 34 to 42 inches bust.



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8502-A Coat with Yoke, 34 to 42 bust.

The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this department for answers to questions to appear.]

Dear Friends of the Ingle Nook.—Not an "essay" to-day, nothing but a letter, a jotting down of the rambling thoughts just as they come.

First of all, the morning papers lie before me on the desk. They are filled with flaming headlines telling of great gains for the Allies everywhere, victories along the Somme, in Macedonia, in Transylvania. It is all so good to read—good because every victory won means another step towards the ending of the war, a cessation of the suffering and horror.

I remember the odd sensations with which, three or four years ago, I read some old, yellowed papers printed about the beginning of the 19th century. The Napoleonic wars were then in full swing, and the pages were filled with accounts of the happenings of the day and surmises as to what was to happen next. One could not but smile at some of the wide guesses, the more so that now, after the passing of a century, the wars of that time appear in their true perspective; and then one could not but reflect that many of the prophecies made at the present day, may be just as far from the mark. It is interesting to speculate in regard to the future, yet no man can say with certainty that any one thing or another shall happen, nor what shall be the next arrangement or combination of the nations. A turn of the kaleidoscope—and what new design may present itself?

When those old, yellowed papers were turned off the press, crisp and fresh, Austria was England's ally, and France, then her deadly enemy, was planning an invasion of England by combined French, Dutch and Spanish fleets, a plan that miscarried but was boiled down later into a bold scheme that the French themselves should carry out the project. Then, too, the Turks and British were fighting on the same side, and "Acre" and "Aboukir" were names that figured in the papers instead of the unpronounceable Balkan places that are to-day to the fore. As to-day too, there was "trouble in Ireland," but at that time it was fomented by French instead of German influence.—How strangely, indeed, things become twisted about!

Everywhere the old sheets bristled with the names of men at the front, Ney and Soult, Junot and Victor and Massena, with our own Howe and Nelson, Moore and Wellesley, afterwards the Great Duke of Wellington; but of course the great personality was Napoleon, little of stature, yet for so long the giant of Europe, the very breath of the war. Selfish and cruel, yet there was always something heroic about him. He was at every turn the most striking figure on the big chessboard, and he did not shrink from posts of danger nor from suffering with his men.

It seemed so strange to read the account, day by day, of those old events, and I remember thinking of them as the last hideous relic of barbaric times, and of reflecting that never again could the enlightened world know so vast and so cruel a war.—How little did I dream that even then we were entering upon an era before which the fiercest days of the Napoleonic wars would be as nothing! Truly how strange are the changes of the years.

When this war is over, is there one personality that will stand forth as the war-genius?—Brusiloff, perhaps. Or Foch? or Petain? or Joffre? or Haig? or—yes, one must add the great German soldier, Von Hindenburg?

Great soldiers, these, and needed for their place. Yet, is it a sign of the times, too, that men point with equal pride, to such national heroes as Lloyd-George and Asquith? Who can say what the morrow will bring forth—what change of ideals, what readjustment of "values"?

We were watching a "Highlander" in khaki dancing the Highland Fling

Here Are The Points—

OUR CLAIMS FOR THE

"Othello Treasure"

Are based on facts—not fancies. Every claim made is guaranteed.

Fuel Economy.—Will bake all day with one fire-pot of coal; 2,020 biscuits were actually baked in one day with one fire-pot of coal.

Even Temperature in Oven.—That is accomplished by solid, heavy construction. A light stove cools quickly. Othello Treasure is very heavy, 725 lbs., as illustrated.

Large, deep fire-box, with straight sides—interlocking and interchangeable.

Ventilated Oven.—Fresh heated air supplied. No burnt-up smoky air to destroy flavor of food.

Oven has patent cold-rolled steel bottom. Saves fuel and ensures even heat.

Glass Oven Door.—You can watch progress without cooling oven by opening door.

Thermometer.—You can keep the heat regulated.

Large reservoir made of copper. Will lift off.

Special lining for wood. Will take 28-inch stick.

Burnished Top.—No black-leading.

Top in three sections, convenient for broiling, toasting and firing.

Nickel Edges all lift off for cleaning.

Towel Bars and all conveniences.

Extra large ash pan.

Beautifully decorated with tile—either dark green or rich ivory.

Made by the largest exclusive stove factory in Canada.

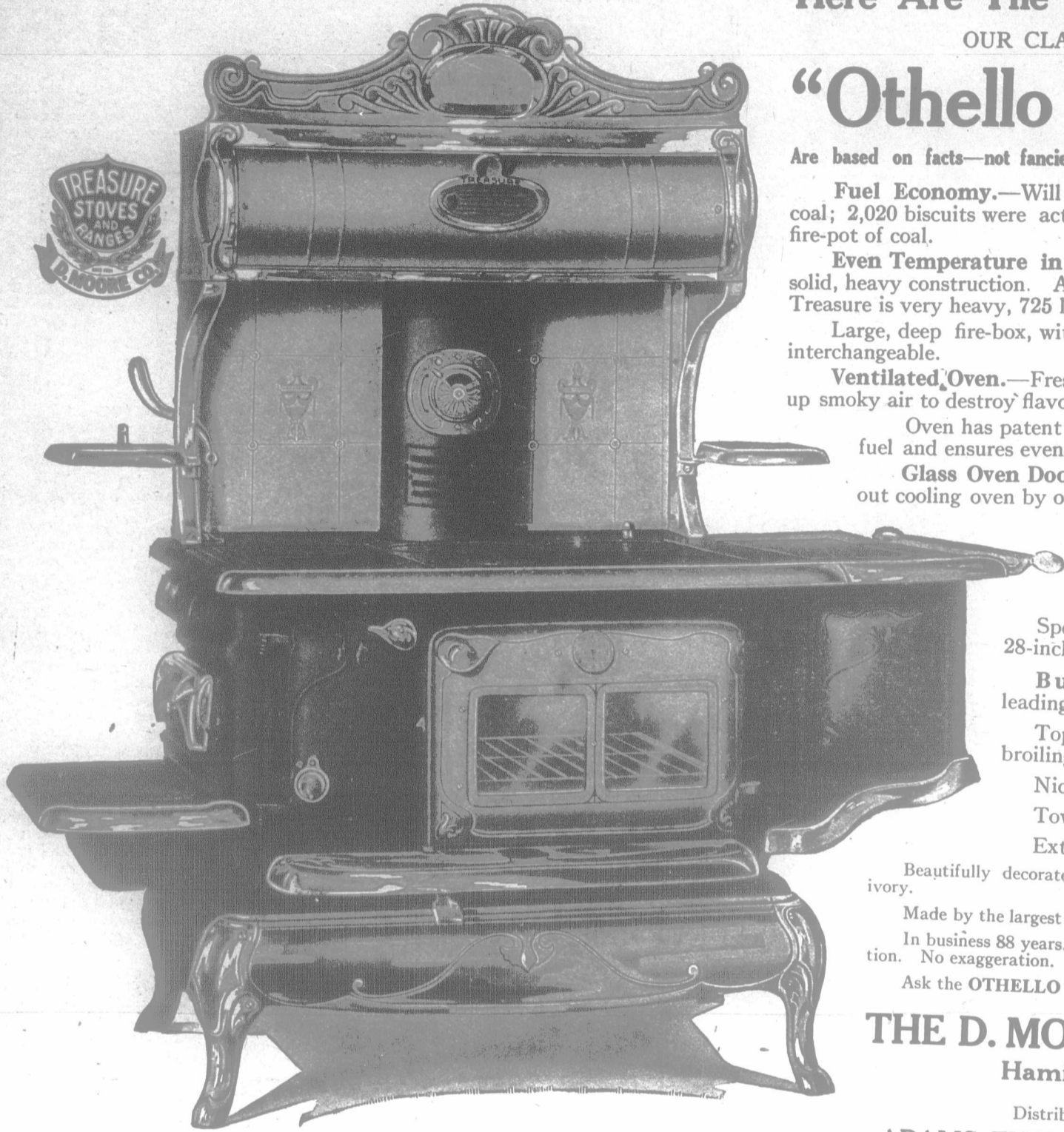
In business 88 years. Tried and true. No misrepresentation. No exaggeration. Just plain facts plainly told.

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on a platform near the entrance of the Western Fair. A ruddy-faced piper supplied the music, and a crowd gathered about. This was what was wanted, for a returned soldier was to follow with a recruiting speech.

"Talk about the Scotch being cold!" I exclaimed, as the youth shouted in the merry exhilaration of the dance.

"I don't think any of the Celtic races are cold," rejoined my friend—she is Irish to the core. "Scotch, Welsh, Irish—how could they be cold!"—And I wondered if she were thinking of the chequered history of these plucky little peoples of the Western Seas.

Yes,—the skirl o' the pipes!—How it sets the least streak of blood of the Scot bounding! And how even those who have no streak of the Scot seem to prick up and look interested as the "kilties" in skirts and sporrans swing into view. But a fortnight or so ago one saw a whole grand stand at the C. N. E. at Toronto sway with applause as the weird, wild strains of the pipers ushered in a band of perfectly trained Highland dancers.

*The skirl o' the pipes—somehow it always makes one think of the Fiery Cross of the old clans, and the beacon lights on the hill-tops.—Days of old-romance!

But the Fiery Cross has not yet gone from us, nor its need. The young recruiting soldier at the Western Fair was but one of its bearers, and the dancing Highlander his herald.

Now, to get right away from war and down to a homely subject: Have

you yet found out the delights of fruit served raw at the table?—not only berries, but also red currants, cherries, plums and pears? Some people stew everything except berries and peaches, but really nothing can be nicer than any of the others mentioned. Take the skins off the plums and pears and cut them up, then serve either with sugar and rich, sweet cream, or as a salad, with salad-dressing, on lettuce, precisely as for vegetable salad. Of course the pears and plums must be perfectly ripe or they will not be so delicious. We have a whole long winter for eating stewed and preserved fruits, and we may as well have the variety of "rawness" while we can.

Besides, raw fruit and cream form one of the easiest desserts to serve at dinner during the busy, busy days of fall, when there is so much to fill the hours—pickling, and house-cleaning, and fall sewing, and gathering in the garden stuff. Served with brown bread or biscuits nothing can be better or more wholesome. Try it.

—JUNIA.

Bran Cookery.

Some weeks ago someone asked for a recipe for bran muffins. I have been skirmishing to find one ever since and have at last been successful. There is nothing better than bran cookery for constipated people, and constipation, as a trained nurse told me last night, is a fruitful cause of appendicitis and many other ills.

Bran Muffins.—Two cups bran, 1

cup entire wheat flour, 3 teaspoons baking powder, ½ teaspoon salt, 3 tablespoons butter, ¼ cup molasses, 1½ cups thick sour milk, level teaspoon soda. Sift together the flour, baking powder and salt, and add the bran. Stir the soda into the sour milk and molasses, then stir into the dry ingredients. Add the butter, melted. Bake in hot, well-buttered muffin pans about 25 minutes.

Bran Gems.—Mix 1 pint white flour with 1 quart bran and one teaspoon salt. Stir in 12 tablespoons molasses and 1 pint of milk, and, at the last, 1 teaspoon soda dissolved in a little boiling water. Bake in gem pans. If only a few are needed use half the quantity. Serve hot with butter and jam, honey or syrup.

Bran Bread.—One cup milk, ¼ cup water, 1 cake compressed yeast, 2 tablespoons butter, ½ teaspoon salt, 3 tablespoons molasses, 1 cup entire wheat flour, bran as needed for a soft dough. Scald the milk, add butter, salt and molasses. When lukewarm, add the yeast mixed with the water, then flour and bran as needed to make a soft dough. Do not knead. Let stand, covered, until light, then cut down and turn into a bread pan. When nearly doubled in bulk bake 1 hour.

Things To Make In Fall.

Cauliflower Pickle.—Take 2 heads cauliflower, 1 pint small onions, 3 red peppers, 1 tablespoon flour, ½ pint salt, 2 quarts vinegar, 4 tablespoons mustard, turmeric. Remove seeds

from the peppers and cut all the vegetables into small pieces. Dissolve the salt in enough water to cover the vegetables and let stand over night. In the morning drain well, then heat the vinegar and add it very slowly to the flour and mustard. Add enough turmeric to color. Boil for 15 minutes and pour over the vegetables. Mix well and seal in jars.

Cauliflower Mustard Pickle.—Let a fair-sized cauliflower stand, head downward, in salted water for an hour, then break the flowerets apart. Cover with boiling water and let cook about 6 minutes. Drain well, then pack into jars. For one fruit-jar put over the fire a scant quart of vinegar. Mix together ¼ cup mustard, ½ cup sugar, 1 tablespoon yellow ginger, 1 teaspoon turmeric, 1½ tablespoons flour; pour a little of the hot vinegar over the seasonings and mix to a smooth consistency, then stir into the rest of the hot vinegar; stir until boiling and let simmer 10 minutes, then stir in 1 tablespoon of olive oil, and pour all over the cauliflower in the jar. A tablespoonful of white mustard and ½ tablespoonful of celery seed may be added to the jar as the cauliflower is put in. Other vegetables, as Brussels sprouts, small onions, slices of green tomato or thick slices of cucumber may be prepared by the same recipe, or a mixture of several kinds may be used.

Sweet Pickled Beets with Onion.—Use small tender beets, and allow 2 onions to 10 or 12 beets. Wash the beets and boil until tender. Do not cook the onions at all. Slice the onions in

a dish that can be covered closely. Slice the cooked beets over them. Prepare a syrup as follows: 1 cup water, ¼ cup vinegar, ½ cup sugar. Boil this and pour over the beets and onions, which have been sprinkled with salt and pepper. Add bits of red pepper pod or cayenne.

Ginger Pears.—Wash the pears and pare them, remove cores and cut into quarters lengthwise. Prepare a syrup as rich as liked and cook the pears in it, adding a few slices of lemon and root ginger.

Squash Pudding.—To 2½ cups steamed and strained squash add the following mixture: Half cup sugar, 1 teaspoon salt, ¼ teaspoon cinnamon; then add 2 eggs slightly beaten and 2¼ cups sweet milk. Turn into a buttered pudding dish and bake in a moderate oven until firm.

Spiced Grapes.—Weigh 7 lbs. grapes and slip the pulps from the skins. Put the pulp over the fire in a granite pan and simmer until soft, then put through a sieve fine enough to keep back the seeds. Add the skins, also 4 lbs. sugar, 1 pint vinegar, 1 small grated nutmeg, 1½ tablespoons ground cinnamon, and a scant tablespoon ground cloves. Let the whole simmer very gently for 2 hours, then seal as usual.

Pickled Mushrooms.—Peel the mushrooms and put into sterilized fruit-jars. For each 2 jars take a third jar and partially fill it with mushrooms. Set the jars on a folded towel in a kettle and pour in cold water to come half way up. Put the lids loosely on the jars and cover the kettle. Let cook ¾ hour after boiling begins, then fill up the two jars from the third. Have ready a quart or more of vinegar, scalded, with 2 tablespoons assorted spices, tiny red pepper pods, celery seed, etc., as liked. Pour the vinegar in the jars to overflowing then adjust rubbers and covers and let cool in the kettle.

To Can Mushrooms.—Wash the mushrooms and discard the stems. Put the caps into sterilized fruit jars, shaking them down assiduously as possible. Put on the covers and place jars on a folded towel in a kettle. Pour in water to half cover the jars; cover the kettle and let boil 1½ hours after boiling begins. Add 1 teaspoon salt to a quart of boiling water and use this as needed to fill the jars to overflowing. Adjust rubbers and covers and let boil 15 minutes.

Curled Celery.—Celery prepared this way looks very attractive. Cut and clean thick stalks of celery and cut in 3-inch pieces crosswise. With a sharp knife, beginning at the outside of the stalks, make five cuts parallel with each other, extending one-third the length of the pieces. Make 6 cuts at right angles to these cuts. Repeat on other end. Let stand several hours in cold water.

Beet and Cabbage Salad.—Select a firm, crisp head of cabbage, not too large. Remove outer leaves and take out the heart of the cabbage, leaving a thin shell. Chop the heart of the cabbage, discarding coarse stalk or ribs. Season with salt and pepper, add equal measures of mayonnaise dressing and whipped cream, salted before whipping, and mix together. Add 1 cup chopped beets, then fill the cabbage. Decorate with sprigs of parsley and bits of cream-cheese, and sprinkle with chopped nuts.

Pear Pickle.—To 6 cups sugar allow 1 quart vinegar, also some stick cinnamon and cloves. Peel the pears and cut into strips. Boil the sugar and vinegar together for a few minutes then put in the fruit and cook until tender, then remove the fruit from the syrup and put in jars, adding a few sticks of cinnamon and cloves to each jar. Pour the syrup over and let stand over night. Strain off the syrup, scald again and pour over. Repeat this two or three mornings then seal hot. Done in this way the fruit will be firm. It should be well covered with syrup. If the latter boils down too much to permit of this more syrup must be prepared.

The Scrap Bag.

Use Buttermilk.

Drink plenty of buttermilk. It is one of the most healthful drinks, not only because it is nutritive, but also because of the antiseptic action of the lactic acid which it contains on the lower intestine.

To Remove Cakes.

If a cake sticks to the pan turn the

whole upside down and lay on the bottom of the pan a cloth wrung out of water. After about 15 minutes the cake will come out easily.

Hemming Table Linen.

To ensure straight hems on table-linen always draw a thread and then cut on the line, then crease up the hem, measuring with a tape or piece of cardboard. If the thread is difficult to draw dampen it with soap and water.

Why you are Awkward.

If you have a homely gait, are stiff in the joints, and have an awkward carriage, the trouble is that you have not learned to stand up.

Ordinarily, people stand with the larger part of the weight of the body on the heels.

This tends to throw the body out of poise, contracts the chest, cramps the vital organs, throws the head forward, and also the abdomen.

To be well poised, to have an easy carriage, to walk freely, you must stand up.—Sel.

Rules for the Sick Room.

1. Don't lose your head.
2. Don't whisper.
3. Don't make sudden noise.
4. Don't let windows rattle or doors click or chairs squeak.
5. Don't discuss the patient's condition with her even if normal.
6. Don't discuss the patient's condition with anyone else in her hearing.
7. Don't discuss sickness of any other person or persons.
8. Don't tell the patient what medicine you are giving her.
9. Don't lean on the foot of the bed, sit on the side of it, or knock against it.
10. Don't keep the sick room dark.
11. Don't let the odors of cooking reach the sick room.
12. Don't forget that sick persons should have an all-over bath every day unless the doctor advises otherwise.
13. Don't keep a conglomeration of medicine bottles in the sight of the patient.
14. Don't let flies or mosquitoes escape alive from the sick room.
15. Do be regular.
16. Do follow the doctor's advice implicitly.
17. Do ventilate.
18. Do shade the patient's eyes from the glare of a lamp.
19. Do kill every fly or mosquito that enters the sick room and burn it.—Sel.

The Windrow

Bucharest, the capital of Roumania, is said to be "a city of spies." Representatives of every nation in the world are seen on its streets, hence nothing escapes. Code conversation takes place everywhere.

The number of eggs laid by a female insect often runs up to 1,000 or more. If it were not for checks, natural and otherwise, they would soon eat up everything in the world. Birds and reptiles eat them, diseases sometimes attack them, sudden changes of temperature, unusual rainfall or drought also affects them.—Our Dumb Animals.

The name Buckovina, which has figured from time to time in the war news means the same as Buckingham—land of the buck (or beech) woods. Beech bark was used as a writing material in former times, and the Saxon name of the tree, "buch" is still the German for book.

Mr. Edison has always been very jealous of his time, and expects his employees to be equally careful lest a single minute that might yield an important invention should slip by.

A year or two ago an old friend whose son was just starting out in life called upon Mr. Edison and presented him.

"My boy," said the friend, "is about to start on his business career. Now, I would like you to give him a few words of advice and a motto which he can adopt in his work."

Mr. Edison was very busy at the time,

Let Him Help Himself To
CROWN BRAND
CORN PURE SYRUP



It will do more than satisfy his craving for "something sweet"—it will supply the food elements needed to build up his little body and help him to gain in health and strength.

"Crown Brand" is a wholesome, nourishing food—as well as the most delicious of table syrups.

The recipes in our new book, "Desserts and Candies" will tell you just how to use it, in many novel ways. Write for a copy to our Montreal Office.

Dealers everywhere have "Crown Brand" in 2, 5, 10 and 20 pound tins—and 3 pound glass jars.

THE CANADA STARCH CO. LIMITED
MONTREAL, CARDINAL, BRANTFORD, PORT WILLIAM.
Makers of "Lily White" Corn Syrup, Benson's Corn Starch and "Silver Gloss" Laundry Starch.

Entirely new—This
COAL Range

Think of a Coal range with a Handy-height Oven!

What a joy to bake without constantly bending over; to see the things baking through the Clearview Oven Door!

The Thermometer at standing height; a clear sweeping space under the range; a warming closet directly heated.

This magnificent new range finished in white porcelain enamel and bright nickel is on sale in 700 stores. A book of photos of the range sent on request.

CLARE BROS. & CO. LIMITED, PRESTON

LIGHTER DAY
HIGH COAL RANGE



Scientific Eye - Examining
\$3.00

Correct Glasses—Free of Charge to Every Patient Consulting our Specialist.

THE BROWN OPTICAL COMPANY
223 Dundas Street, London, Ont.

Yorkshires Sows bred, others ready to breed and younger; boars 2 and 3 months, from carefully selected stock.

Shropshires Ewes, 2 to 4 years, ewe and ram lambs. Write us your wants.

WM. MANNING & SONS, Woodville, Ont

THE VETERINARIAN
A valuable book which tells you about the treatment of diseases of your live stock given FREE with a trial tin order of

LINSEED OIL CAKE
"Maple Leaf" Brand
Write to-day for lowest prices.

The Canada Linseed Oil Mills, Limited
Toronto and Montreal

PATENTS AND LEGAL
FETHERSTONHAUGH & CO., PATENTS
Solicitors—The Old Established Firm. Head Office Royal Bank Building, Toronto, and 5 Elgin St., Ottawa, and other principal cities.

Bread Making Contests At Rural School Fairs

PRIZES—Free Courses at Macdonald Institute, Guelph
Free Poultry Raising Courses at Ontario Agricultural College
Free Cook Books and Magazines

Over 1,500 prizes in all will be offered in bread-making contests which will be held this fall at over 250 rural school fairs taking place in Ontario. It will be a great event at the fairs and will stimulate interest in bread-making among young girls between the ages of 12 and 17 years.

Here is a wonderful opportunity for your daughter to win for herself a Free Course in Domestic Science at the famous Macdonald Institute, Guelph. All she has to do is to bake one double loaf of bread and enter

it in the contest at the fair according to the conditions explained below and more fully told in the folder we will send you on request. The loaf must be baked with

Cream of the West Flour the hard wheat flour guaranteed for bread.

This is a splendid flour which makes the biggest, bulging loaves—whitest, lightest and most wholesome bread you ever baked. Is this not a splendid opportunity to interest your daughters in breadmaking?

Here are the Splendid Prizes offered for the best loaf of bread baked with Cream of the West Flour. The following are offered at each local Fair:

- 1st Prize.—1 paid-up subscription to "My Magazine" for 1 year. This magazine is full from cover to cover every month with articles suitable for young people of all ages. It is published in England. Value \$2.50 per year.
- 2nd Prize.—6 months paid-up subscription to "My Magazine." Value \$1.25.

Extra Prizes.—When entries exceed ten a 3rd prize will be awarded of 6 mos. paid-up subscription to "My Magazine." When the number of entries exceeds twenty the judges at the fair will award 4, 5th, and 6th prizes of one year's paid-up subscriptions to "The Little Paper." This is a wonderful little publication issued every month in England. Its eight pages are packed with highly engaging information and stories relating to history, nature-study, animals, bird-life, etc.

Important—The winners of 1st prizes at the fairs automatically become competitors for the Provincial Prizes. The second half of the double loaf is sent to Ontario Agricultural College, Guelph, by the district representative in special container provided. The judging is done by Miss M. A. Purdy of the Department of Breadmaking and Flour Testing at the College.

Provincial Prizes—The winners of first prize at each local fair compete for following Provincial prizes. The first and second prizes, or third and fourth prizes, will not be awarded in any one county:

- 1st Prize.—Short Course (3 months) in Domestic Science at Macdonald Institute, Guelph. The Macdonald Institute does not accept students under the age of 17 years; if the winner be less than 17 we present her with a certificate entitling her to take the course when she reaches the right age. Value of course \$75.00, which pays for fees, room, board and washing. The winner lives at Macdonald Hall while taking course.
- 2nd Prize.—Short Course (3 months) in Domestic Science at Macdonald Institute, Guelph.
- 3rd Prize.—Short Course (4 weeks) in Poultry Raising at Ontario Agricultural College, Guelph. Girls taking this course do not live at the College, but good boarding houses will be secured for them in Guelph. Value of course \$35.00, which pays board of student in Guelph. (No fees are charged for course.)
- 4th Prize.—Short Course (4 weeks) in Poultry Raising at the Ontario Agricultural College.
- 5th Prize.—The Famous Boston Cooking-school Cook Book by Fannie Merritt Farmer, latest edition (1914). There are 2117 thoroughly tested recipes and 130 photographic reproductions of dishes, etc., besides much special information.

Conditions of the Contest

Every girl may compete at the rural school fair in her district, whether or not she attends school, providing that her 12th birthday occurs before November 1st, 1916, or her 17th birthday does not occur before Nov. 1, 1916. One loaf of bread must be submitted baked in pan about 7 x 5 inches and 3 inches deep, and divided into twin loaves so that they may be separated at the fair. The loaf must be baked with Cream of the West Flour. One half will be judged at the fair. The other half first prize loaf will be sent to Ontario Agricultural College, Guelph, to compete in the Provincial Contest. The local contest at the fair will be conducted under the same rules as all the other regular contests at your fair.

The standard by which bread will be judged will be as follows:

- | | |
|----------------------------|----------|
| 1. Appearance of Loaf..... | 15 marks |
| (a) Color..... | 5 marks |
| (b) Texture of crust..... | 5 marks |
| (c) Shape of loaf..... | 5 marks |
| 2. Texture of Crumb..... | 40 marks |
| (a) Evenness..... | 15 marks |
| (b) Silkeness..... | 20 marks |
| (c) Color..... | 5 marks |
| 3. Flavor of Bread..... | 45 marks |
| (a) Taste..... | 25 marks |
| (b) Odor..... | 20 marks |

Each loaf must be accompanied by the part of the flour bag containing the face of the Old Miller (important) and an entry form must be signed by the girl and parents or guardian stating date of birth, P.O. address, and giving name of dealer from whom Cream of the West Flour was purchased. The form will state

Write for free folder giving full and complete information about every feature of this great contest.

Address **Campbell Flour Mills Co., Limited, (West) Toronto**

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with half a dozen engagements pressing, but looking up at the big dial of the clock in the laboratory, and shaking the young man's hand warmly, he said, with a smile that is peculiarly his own, "Young man, the best advice I can give you is, never look at the clock."—Sel.

Mr. Alfred Perceval Graves, M.A., the author of "Father O'Flynn," has been giving Great Thoughts some particulars of that famous song. The original of the song was Father Michael Walsh, the parish priest of Killohane, near to the little town of Sneem. "He was a wonderful old boy and a keen sportsman," said Mr. Graves. "He used to keep beagles, and I recollect that, as children, we had the greatest fun with those dogs. I can recall a picture of the old gentleman in the days when he was getting stout. He

would climb to the top of a mound, watching the hunt through his field-glasses, waving his great stick, and shouting to the younger dogs. He was quite a character, and a very fine man." Father Walsh, it seems, was a skilful performer on the Irish pipes, and an enthusiastic collector of the beautiful old Irish airs.—Otago Witness.

A letter written by Burns to Mrs. Dunlop in 1788 was sold at Sotheby's, London, for £225. The letter contains the famous confession of his private marriage to Jean Armour. It is an interesting account of the poet's wife and her virtues and qualities, and further stated that when he contemplated making his West Indian voyage her parents "got a warrant to incarcerate me in gaol till I should find security in my about-to-be paternal relation." The sum of £16 was paid

for an autograph verse by Burns, endorsed "A Card from Burns, 1791." The lines read:—

From gloomy desponding
Most gladly absconding,
I fly to Glenriddel's good board,
Where worth, wit, and wine—
Alliance divine—
Will make me as happy's a lord.

Current Events

A new Agricultural School is to be established near the town of Kemptville, Grenville Co., Ont.

An official investigation into the high cost of bread is being made in Toronto. Proposals have been made that the

difficulty be overcome by the establishment of civic bakeries.

The freshman class of the Ontario Agricultural College numbers but half as many as usual. The deficit is due to the drain made by the war.

On Sept. 24th the Germans made another air-raid on England. Two Zeppelins were brought down in Essex County, one in flames.

On Sept. 24th two French airmen dropped bombs on the Krupp works at Essen.

The Greek Government has sent a note to Germany demanding that the Greek troops from Kavala be returned.

The greatest interest is everywhere excited by the new British "tanks," immense armored moving forts carrying men, machine guns and heavy guns. By means of caterpillar wheels these monsters walk over trenches, boggy lands and entanglements without the least difficulty, at the rate of five miles per hour, wherever they go they are striking terror into the enemy.

Interest in Canada this week centers in the accounts given of Canadian prowess during the recent fighting on the Somme, Sept. 15th, when, during the capture of Moquet Farm and Courcellette, the troops from the Dominion took 1,200 prisoners and 2 guns, capturing foe positions to a depth of upwards of 2,000 yards. Men from Toronto, Hamilton, London, Kingston and other Ontario points participated, also a French-Canadian Battalion that won great glory. The Canadian casualties amounted to 4,000, of whom 900 were killed. Elsewhere along the line New Zealand and Australian troops also acquitted themselves with great valor. At time of going to press the British forces continue to advance toward Bapaume, while the French, under Gen. Foch, have taken the first buildings of the fortified village of Comblès. From the East, reports are conflicting, Berlin having reported a victory for Von Mackensen's troops (Germans, Bulgars and Turks) near Constanza, while from elsewhere come scattered rumors that, on the contrary, his army is hemmed in without food or munitions, the convoys having been sunk by Roumanian artillery. The Serbs, it appears, continue their victorious advance and are now fighting on their own soil near Monastir. The capture of Kaimakalan plain by Russo-Serbian troops is considered by Greek military officials as the most important military event in the Balkans up to the present, on account of the commanding position which it ensures. The political situation in Greece is still unsettled, and it is rumored that at an early date M. Venizelos may become Premier again, in which case Greece will enter the war on the side of the Allies.

The Beaver Circle

Lost at the Big Exhibition.

Dear Beavers.—Did you hear about the little Boy Scout who lost his way at the big Exhibition in Toronto and was really and truly the guest of the Exhibition managers over night?

Treasurer Brentnall found him, very very late at night on Farmer's Day, on the steps of one of the buildings. The crowds had gone, and it was very lonely in the great empty Fair Grounds, even though the big buildings were still lighted up quite brilliantly.

"Please, sir," said the little lad, "can you tell me where I can find a telephone? I've got ten cents."

The big Treasurer put his arm around the wee man, standing there, so very small, but so very brave and manly, too. "Come along in here," he said, "and we'll find a telephone where you'll not have to pay, so you can keep your ten cents."

The boy's name was Clarke Logan, he said, and he had come with the Scout Troop from St. Catherine's but had got separated, somehow, and had not been able to find the rest

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of the boys at all. Now he wanted
to telephone his mother so she would
not be uneasy.

"Everybody was awfully good," he
explained, "I saw twelve shows, and
had four trips on the Royal barge,
and two swell feeds."

But in spite of the "feeds," the very
small laddie looked very tired, and
so it was that he was put to bed
in a very big room out at The Grounds,
given a fine shower bath in the morning,
and treated to a perfectly splendid
breakfast with the officers of the big
Exhibition.

"That boy and his manners are all
the testimonial I need for the Boy Scout
movement," said one of the directors
to another, as the little visitor was
driven away to the station in a big
motor car, and the men to whom he
spoke nodded assent.

Some people say Canadian boys
and girls have bad manners. Well,
Clarke Logan is a sample of Canadian
Boy Scouts. I hope we could show
many among our Beavers, who may
also be Scouts, with just as good manners.
It doesn't take very long to say "Please,
and "Thank you," nor to do little favors
for people, and it is just as easy to eat
prettily as nastily.— Yet how it counts!
PUCK.

Senior Beavers' Letter Box.

[For all Beavers from Senior Third to
Continuation Classes, inclusive.]

Dear Puck and Beavers.—Here comes
another wanderer to join your happy
band. This is my first letter to your
Circle, but my father has taken the Ad-
vocate for years, and I enjoy reading
your circle very much. I live on a
farm and I like country life and all out
door sports. Can any of you Beavers
swim? I think it is something everyone
should know. I often go in the water,
but I cannot swim yet. I have a little
pet pig. I wish some of you could see
it. As my letter is getting rather long,
I will close with a few riddles.

Why is a mouse like hay? Ans.—
Because the cat'll (cattle) eat it.

Why is a gardener like a Chinaman?
Ans.—Because one keeps the lawn dry,
(laundry) and the other keeps the lawn
wet.

When does a man steal from his wife?
Ans.—When he hooks her dress.

Wishing the Circle every success, I
remain, yours truly,
MABEL LIVINGSTON, age 14.
Seaforth, Ont.

Dear Puck and Beavers.—I have
written a letter once before and seeing
it in print I thought it was a sign that
I was allowed to join your charming
Circle, so I took the courage to write
again. My uncle takes the Farmer's
Advocate and I enjoy reading the
letters in the Beaver Circle. I am thirteen
years old and I live in Renfrew with
my mother and father and one brother
two years younger than I. I come
to visit my uncle every summer and stay
all the holidays. So when uncle takes
the Advocate I thought I would write
too. I always think there is no place
like the farm—don't you Beavers? I
passed into the entrance class this year,
and we are having a new principal in our
school. I am what you call a book-worm.
The books I have read are Leola Dale's
Fortune, most of the Elsie books, Two
Little Waifs, Father M. P., Little
Women, The Dalrymples and quite
a few others. As my letter is getting
long I will close, hoping my letter is
enemies with the w. p. b.
EVELYN DRAPER.

R. 1, Lanark, Ont.

Dear Puck and Beavers.—We have taken
the Farmer's Advocate for about fifteen
years. I always like to read the Beaver
Circle as soon as we get the paper.
We think it is the best paper we
know of. I am lonely sometimes, as
I am the only girl at home yet have
four brothers and one sister. I would
be very glad to know of someone
to correspond with, so won't some
kind Beaver from ten to twelve years
of age please write and I will answer
all letters. I can guess quite a few
of the riddles and will send you some.
Why is a kiss over the telephone
like a straw hat? Ans.—Because it
is not felt.

Up a hill there is a green house and
in the green house is a red house and

in the red house there are a lot of
little negroes. Ans.—A watermelon.

Well I do not know any more riddles
just now. When will this terrible
war end? We hope soon. I hate
to say it but I do not think there
will be any signs of the end before
next summer. My father enlisted, but
was not accepted. I think this is
long enough. Remember Beavers and
write to me.

Wishing the Beavers success,
AMY L. BRECKON.
Merton, Ont.

The Competition.

Subject.—"How I spent my holidays."
The first places in this competition
were taken by:

George J. Thompson (age 12), Box
33, Teeswater, Ont.

Janet Grieve, (age 13), R. 5, Seaforth,
Ont.

Bella MacLeod, (age 14), Box 65,
Moose Creek, Ont.

How I Spent My Holidays.

GEORGE J. THOMPSON, TEESWATER, ONT.
Just before school closed my mother
promised me, if I passed my school
and music examinations, she would take
me with her to New Haven, Conn.,
where she was going on a trip. This
encouraged me to work harder. I passed
my examinations, so I prepared to go.
The first two weeks of July I helped
my father with the hay. I cut one field
of hay, and also drove the horses, while
my father built the loads. I helped
with hoeing as well.

In July 17th we left home for Toronto
and stayed there three days. We then
boarded the five p.m. train for Spring-
field, Mass. We passed through the
fruit district on our way to Buffalo.
At the latter place we went to bed.
When we awakened we were passing
through the Catskill mountains where
there is beautiful scenery. At Spring-
field we changed trains for New Haven,
and arrived there at eleven a.m. We
visited at a friend of my mother's who
has a boy the same age as myself.

New Haven is a city of one hundred
and fifty thousand, and is situated on the
Long Island Sound. It is quite a historic
spot, for it was there that the Pilgrims
landed. The church they built is still
there right in the middle of the city.
Many of their monuments may be seen.
Yale College is in New Haven, but as
it was holiday time we couldn't go
through the buildings. In the centre
of the city there is a pretty spot called
"The Green." It is about ten acres
in size, and there are trees, and seats
and many doves flying about in it,
quite tame, and no person dares harm
them. All the municipal buildings face
on this Green.

My first trip on the salt water was
in a motor-boat, and almost every day
I was in bathing when the tide came
in. When the tide is out the children
go clam-digging on the beach, and this
is great fun. All the New Haven coast
is excellent for bathing.

One day we went down to New York
City, which is just an hour's fast ride.
On our way we saw many munition
factories. When we reached the city
we took a subway car to Bronx park,
a zoological garden where I think I
saw every kind of animal and bird in the
world except the camel; we happened
to miss him.

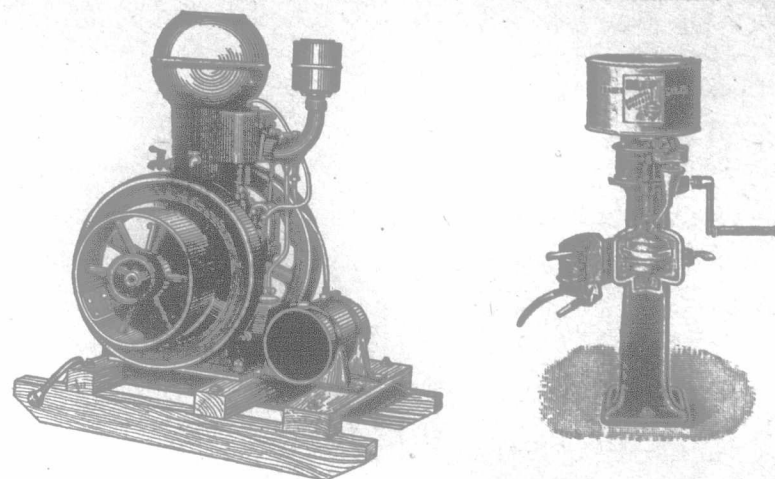
After we returned from the park we
had our dinner, then we went to Coney
Island on an overhead railway. As
we crossed the Brooklyn bridge we could
see the Statue of Liberty. At Coney
Island there are all sorts of amuse-
ments which I enjoyed very much.
When we were leaving there, quite
late, the people were coming in thou-
sands. On our way back from Coney
we came in a subway car and passed
under the Brooklyn river. We returned
to New Haven the same night and were
all very tired.

When we were coming home mother
and I came from Lewiston to Toronto
across Lake Ontario, and when we got
back to the farm it was just a month
from the time we left. Daddy was
finishing the harvest. I enjoyed my
holidays, and my brothers at home said
they had a good time also.

A Vacation at Sarnia Beach.

BY JANET GRIEVE.
On the fifteenth of July I went for
a two-weeks' vacation at Sarnia Beach,
accompanied by my two cousins. We

LISTER The Name That Stands for
QUALITY in Farm Machinery



Lister Engines Famous all over the world for their superiority in design,
workmanship and construction. British built throughout.

Lister Threshers Thousands of farmers are threshing their own grain
this fall. Call and see the Lister Thresher, operated
by 5 to 12 horsepower.

Lister Silos and Ensilage Cutters The best silo and silo-filling
outfit that money can buy.
Ten-inch and 13-inch fillers, with blower operated by 5, 7 and 9 horsepower engines.

Lister Milkers Are in use all over Canada.
Either single or double can system.

Lister Electric Light Sets In use all over Canada. Small
set built specially for the farm.

Melotte Separators Used by over 50,000
Canadian farmers.

WRITE FOR OUR CATALOGUE TO DEPT. G.

R. A. LISTER & CO., Limited, TORONTO
WINNIPEG QUEBEC ST. JOHN, N.B.

New Winter Suitings and Overcoatings



We can take your
measure by mail for
a suit or overcoat with
our patented self-
measurement form and
guarantee as perfect
satisfaction as if you
came to our store in
person. We only have
the one price.....



All you have to do is to write to us, stating
as nearly as possible the kind of suit or over-
coat you would like, and we will send you
samples and the self-measuring form. Re-
turn us the samples, stating the one you
like, and enclose your measurement. When
your suit is finished we will express to you
prepaid C. O. D. If you do not like the
clothes you do not need to take them. We
take all the risk.

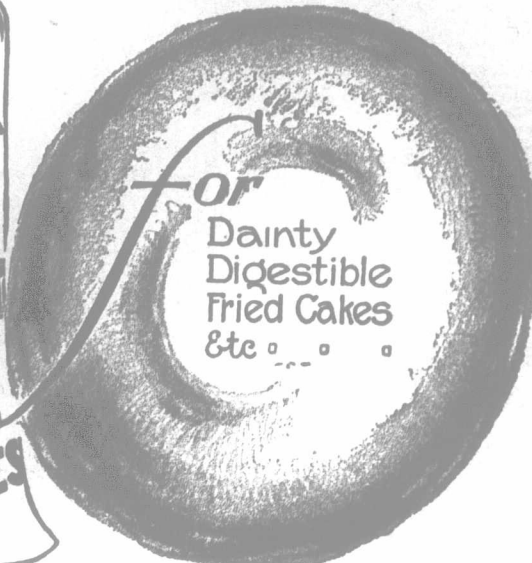
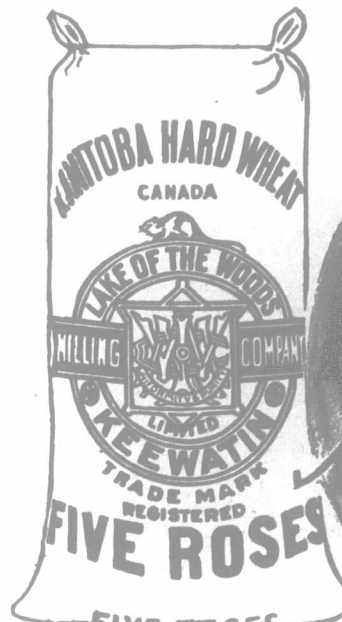
There is no excuse for any man wearing
guess-fit-ready-made clothes when he can get
our made-to-measure tailoring at this price.

We only have the one price, and are the
largest \$15-made-to-measure tailors in
Canada.

WRITE TO-DAY AND ENCLOSE THIS ADVERTISEMENT.

TIP TOP TAILORS

Dept. F.A. 260 Richmond Street W., TORONTO, ONT.





Indian Economy

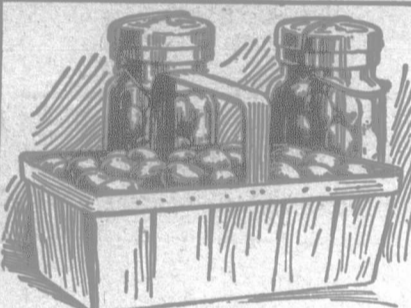
MANY careful people have found that Red Rose Tea is very economical—that it yields more cups to the pound. That is because it consists largely of Assam-Indian teas, which are famous for their full-bodied richness and strength. They make Red Rose Tea go farther.

Try the Indian Economy of this distinctive tea.



RED ROSE TEA "is good tea"

In sealed packages only. 713



Plums

have a spicy zest which makes them a favorite preserving fruit, and several excellent varieties are plentiful this year. Preserve all you can with

Lantic Sugar

for the sake of economical and wholesome desserts next winter. Lantic sugar comes in

**2 and 5-lb Cartons
10 and 20-lb Bags**

Pure cane. FINE granulation
"The All-Purpose Sugar"

PRESERVING LABELS FREE
54 gummed and printed labels for a red ball trade-mark. Send to

Atlantic Sugar Refineries Ltd.
Power Bldg., Montreal 68

Harab-Davies Fertilizers

Yield Big Results

Write for Booklet,
THE ONTARIO FERTILIZERS, LTD.
West Toronto

The Sherlock - Manning

20th Century Piano
"Canada's Biggest Piano Value"

has every standard feature, yet costs \$100 less.
Ask Dept. 18 for Catalogue "T".

THE SHERLOCK - MANNING PIANO CO.
London, Canada
(No street address necessary)

arrived there about seven o'clock in the evening, but found no one to meet us. The street car conductor, happening to know our uncle, directed us to his cottage. We got a hearty welcome from our aunt and uncle. We thought we would explore the beach a little. There were cottages on either side as far as you could see. There was also a camper's store at which you could buy all sorts of canned goods, ice-cream and candies, which suited us very well.

Next morning the lake was magnificent, little waves danced here and there sparkling brilliantly in the sun. After breakfast we all went in bathing and later on for a canoe ride. In the evenings we sat on the beach and watched the sun set. The shadows on the lake too were beautiful, first green, then blue, and the glorious red shade of the sun blending into t. The next day the lake was rough and misty. The large breakers came in and then fell with a roar. You would hardly know it to be the same lake. A dark, heavy frown seemed to have taken the place of the merry, rippling waters of the day before. For two days the rain came down in torrents. But for all the rain we had a pretty good time. We sang songs, told stories and made taffy. The rain soon cleared up and we had glorious weather. We were in bathing twice a day and thoroughly enjoyed ourselves. But the time came for us to go home, and very unwillingly we went. We hated to leave the dear old lake with its stately steamers and merry dancing waves. We arrived home safely ready to relate the story of the good time we had at Sarnia Beach.

A Holiday About Home.

BELLA MACLEOD.

Dear Puck and Beavers.—I have read your Circle with great interest for some time, and seeing in it the competition on "How I Spent My Summer Holidays," I thought I would write on it.

Well, you may be sure I was glad when the school closed for vacation. Two months! How long it seemed! I began to plan what I would do during my holidays, but I am sorry to say many of these things are still undone.

First, there was the picnic on July 1st. It was held in Moose Creek, a village not three miles from home. I went up in the morning. In the afternoon some very interesting addresses were given by some of the members of parliament. Then the "Pipe Band" rendered some excellent music, while a grand programme of athletic sports filled in the rest of the afternoon. After spending a very enjoyable day I came home tired out.

Then I went on several berry-picking trips, and I certainly did have a great deal of fun. Then, of course, there were a great number of socials at nearby villages. I attended several and spent a very enjoyable evening at each one. At these socials they generally have violin and other instrumental music, singing, etc. One social which I enjoyed especially was held at Moose Creek on June 13th. The comedian, Jock Hunter, was there singing comic songs and telling droll stories. The Pipe Band furnished splendid music, while singing and instrumental music took up the rest of the time.

A neighbor girl and I spent many happy hours playing games, such as hide-and-peek, tag and many other games. Then we played on the swing and very often we played base-ball. On the 24th of August, the day the soldiers of the 154th Battalion received their colors, we and some neighbors drove, making seven in all. Cornwall is about twenty miles from our home, but as the road was rather new to us we saw many interesting sights on the way out. After we arrived there and had dinner we were whizzed down to the lacrosse grounds in an auto. There we saw the soldiers. They marched out of the grounds in their different companies up to St. Lawrence Park. We got in another auto and were there in time to see them march in. We walked down to the water's edge where the scenery was very beautiful and saw expert swimmers and divers. We saw a number of soldiers that we knew. On our way home from the park we saw a historic fort which was used the

time of the Fenian Raid. I was very glad that I had the chance to see it, as I had read much about forts but never had the chance to see one before.

The day before school started I was astonished to find myself as glad to start again as I was to stop. But I think if we take an interest in our work we will enjoy it almost as well as play.

Honor Roll.—Wilhelmina Petrie, Bainsville, Ont.; Jean Gilchrist, Shanty Bay, Ont.; Jean Smith, Central Ponds, Merrigtonish, N. S., Name not signed, Paisley, Ont.

Junior Beavers' Letter Box.

[For all Beavers up to Junior Third, inclusive.]

Dear Puck and Beavers.—This is my second letter to your charming Circle. My father has taken the Farmer's Advocate for a number of years, and he likes it very well. I have four sisters and one brother. We all go to school but my brother and sister. Our teacher's name last year was Miss Thompson, and we all liked her very well. But this year our teacher's name is Miss Wilkson. I haven't many pets, but the ones I have are a cat, dog and hen called Biddy. I guess this is all for this time. Wishing some of the Beavers would write to me.

BEULAH STINSON,
Age 10, class, Jr. III.
R. R. No. 2, Blenheim, Ont.

Dear Puck and Beavers.—This is my second letter to your Circle. I go to Sunday School every Sunday I can. I go to day school every day I can, too. I am in the Junior Third Reader. I am nine years old. I have one sister and no brothers. My sister's name is Jean. We have taken the Farmer's Advocate ever since I can remember and I like it fine, especially the Beaver Circle. We take the Messenger, Globe, Westminster, Presbyterian and Sentinel. For pets we have a dog whose name is Captain. He was eleven years old this summer. Isn't this war terrible? I have an uncle and several cousins in it. One of my cousins is training, but will soon be going overseas, and the rest of them are at the front. Some of the books I have read are Bessie in the City, Bessie at the Seaside, Mildred's Girlhood, Mildred at Rose-lands, What Katy Did, Black Beauty, Pollyanna, and a great many others. Well as this is getting very long I will close.

I remain,
BESSIE LANE.
R. 2, Holyrood, Ont.

Their Views of Winter.

BY CLARA PINKNEY.

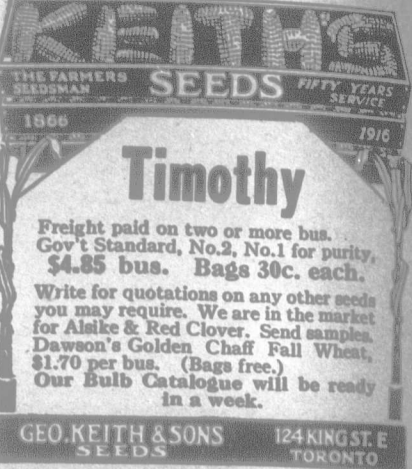
"We like it," said the robin,
The bluebird and the wren,
"For it is a reminder
We must go South again—
A most delightful journey
To those who once have been."

"We like it," said the snowbird,
The sparrow and the crow,
"For we are much more happy
When all the others go;
And we manage very nicely,
In spite of cold and snow."

"We like it," said the woodchuck,
The beaver and the bear,
"For now in cozy quarters,
Without a single care,
We settle down in quiet,
And sweetly slumber there."

"We like it," said the sable,
The marten and the fox,
"We're clad to stand the winter
And all its roughest knocks—
If trappers do not get us
Inside a horrid box."

"We like it, too," said Bobby
And Tom and Dick and Ben,
"For we can have the skating
Up on the river then;
And build a snowy castle,
And knock it down again."



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Little Bits of Fun.

"Harry," said the teacher, "you may give us a sentence in which the word notwithstanding is correctly used."

And Harry, nothing daunted by the size of the word, answered:
"The man wore his pants out, but notwithstanding."

"Dear sir," wrote the anxious mother, "I am afraid Johnny is not trying enough." "Dear madam," replied the harassed teacher, "I assure you that Johnny is quite trying enough. He is the most trying in the class."

Our Serial Story

The Road of Living Men.

BY WILL LEVINGTON COMFORT.

Author of "Down Among Men," "Fate Knocks at the Door," "Red Fleece," "Routledge Rides Alone," "Midstream," "Child and Country," etc.

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III.
20

I had swooned in the silence. From afar off I heard the sound of falling water, and drawing near, for I was athirst, it was not a water-fall I found, but a woman weeping; and then the wild woodland place through which I had hastened, changed to the gray stone temple of the Quichuans, and the woman—Mary Romany. Some scarfy thing she had worn covered my bare arms and chest—but not enough. In trying to think what had become of my shirt—it all came back, and the woman felt me shudder, but it did not happen again.

Lillian Yarbin brought water from the

cistern. I drank, and they bathed my face and neck, and my hands, which were black in the bad light; and whiter than before, in that bad light, was the hair of Mary Romany at the temples. And I asked if they saw a man's shirt about anywhere. It was found, trampled. They seemed horrified when I arose, but begged me to come with them into Lost Valley.

It was true that Mary's father was coming. They had seen his camp-fire on the opposite ridge, fourteen miles away, last night. He would start early and be here within two hours. At least, they hoped her father was with the party. They had been unable to sleep; had left Yarbin watching and gone down into the Canyon with the first light. She had been drawn down there, Mary Romany said. From the passage they heard voices in the Vatican.

I stood upon the platform behind the altar-stone and they brought me water. I told them I would go to the valley to prepare for her father's coming; that all would be well there; that only a few had gone wrong with the whiskey; that I was tired, but quite well.

"You will not let us stay with you?" Lilian Yarbin asked, but the other had asked it first with her eyes.

"No, I want you to meet him in the other valley—and to say that all is well—"

As the water bubbled in the key-bores, I heard the far sound of firing. The women heard it, and asked.

"It is Huntoon practicing at the Pass. He knew nothing of this—"

I held the panel open. I remember the arms of Mary Romany as I bade her go, and again bade her go . . . and the big trachyte panel slipping back.

And now I was alone, and sank forward on the altar-stone, and I wanted the woman's arms. The firing lifted me again. I had lied about that. I moved across the Vatican as one in a dream.

Suddenly there was a furious reverse in my mind from hatred to happiness. It was like a plunge in a pool of sheer joy. I held the Vatican; a fight was on at the Pass. If Orion had surprised the diminished command there, and taken the position—the beasts who had tortured me were penned in the valley. I had but to swoon—to let go and sink to the stone.

For ten seconds, at least, I was a slave to this poison. My hand flew along the inner locks of the great iron door—all shot and effectively barring out the miners and the soldiers. It was not I—for I was not all there—just another reflex of the night of agony. And now I heard running feet and the spent and husky voice of Maconachie:

"For God's sake, Mr. Ryerson—open the door—"

Tears came to my eyes, as I remembered the night; and the queer honest length of the "o" in God from his lips, made a babe of me. I was already reversing the locks.

"What is it, Mac?" I called.

"There's a fight at the Pass—and it sounds nearer. . . I've gathered the women, and the men are standing for your orders—the drunken lot. For God's sake, open—and take over command. It's all up, if you don't."

I pushed back the great iron door and squinted at the red of morning. Maconachie fell back from the sight of me.

"Yes, they thrawned me a bit, Mac. Yes, I know you didn't have anything to do with it. Dole's whiskey—"

"They overpowered Huntoon's guard at the Inn," he said hoarsely. "I couldn't stop them. I told them I was done with them."

The women of the placer passed into the Vatican—and many of them shrank from me. The poor creatures had felt the brunt of the night's lawlessness. Down by the river the miners were running to and fro, many already started towards us. And now I saw a mule galloping furiously on the trail down from the Pass. It was the old gray vixen that had creased me. . . Maconachie signaled the rider, who was reining toward Headquarters. He turned his mount like a flash. Fifty feet away, the fiery beast stepped in a rut—sprawled and slid with thud and groan. The courier launched forward until the bridle-rein, which he had not dropped, brought him whirling to the turf. It was a most sensational delivery. . . Maconachie and I picked up the messenger, whose face was twisted with

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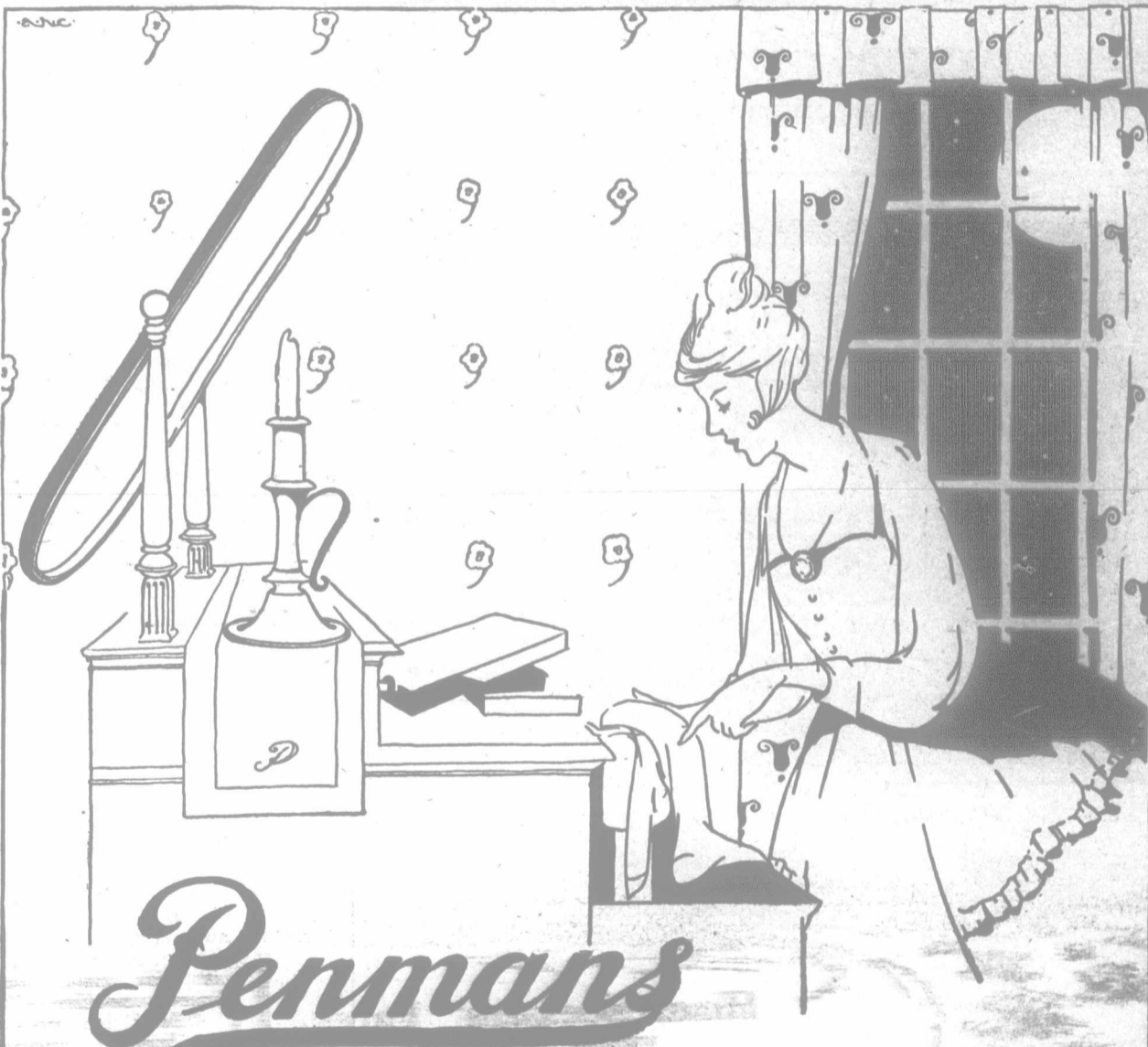
the torture of a mid-riff vacuum. His lips moved, but it was several seconds before he had air enough to sound the words:

"Orion has taken the Pass. . . . The men are holding a bit—but must give way. Huntoon has joined them to slow up the retreat, so you fellows will have a chance."

I ordered the courier into the Vatican, and sent Maconachie to bring up the miners in what order he could, and took the post at the great door, watching the ascending trail to the Pass. I was still dazed.

The old gray mule arose, snorted, shook herself, and turned about toward the Pass at a fast walk.

And now the miners were crowding in; and I watched those who hastened with averted eyes into the gloom of the Vatican. They hurried out of the light—as children from a dark room. Shame and fear and nausea twitched upon lip and nostril and eyelid; others fresh-awakened from stupor were even more swollen and deathly. I have seen it since,—where one is rudely aroused from the death of drink—the look of Lazarus newly-called. . . . And Dole looked at me genially; and Dole's hair was subdued with much river-water, and his face clean and his eyes bright. He seldom drank his stuff. I had a



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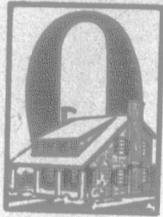
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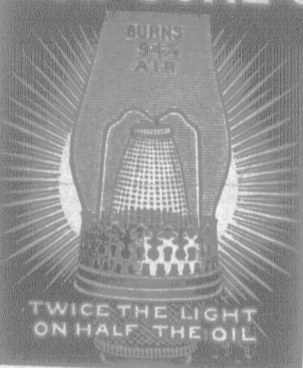
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suspicion that it would be hard for me to forget Dole.

It didn't occur until afterward how I must have looked to them—my face altered, my wrists and hands blackened and swollen, my throat covered to the chin with Mary Romany's scarf. . . . It was a hideous moment; yet matters were conducted with speed.

"You men, not too drunk, take guns and shells. Cover the retreat of our soldiers," I ordered. "Give them something to fall back upon. Don't stand for much fire, but make a show of reserves to check the rush of Orion. . . . And you women stay in. Sit down and rest. It's all right. The old Master is expected to-day."

Swiftness was needed. Orion had swarmed over the Pass and was driving Huntoon five to one. Maconachie, with a party, was bringing food and valuables from the settlement, though there were extensive stores in the Vatican-vault and beyond. A line was formed on the slope. The eagerness of the men to obey my voice caught strangely at my heart. . . . Presently I saw Huntoon's men under fire as they were crowded down from the Pass.

The dawn rolled up like fire-lit smoke behind the mountains; its mighty grandeur curiously foreign that hour, after what I had known in the night of men and myself and the world. Even the firing seemed small and inconsequential. . . . Out of it all came timidly at first the memory of my love across the range; I had not rightly realized her in the Vatican. For long, she had been driven from mind by torture and hatred—a beastly combination when alive in a man, but now devouring itself. It is true, I did not hate these men now. Maconachie warmed me with his zeal. His voice through the iron door—a hard man's giving up in great stress—had been all I needed. . . . And some of those who had passed into the Vatican, and some who had gone forth into the line—had tortured me. How far torture was from from their minds now. And I might have done the cheap thing; might have failed to serve and save them. Something came to me this moment from the woman beyond the mountain. This was the moment of life's renewal. I ran out to the line.

"We won't hang around here long enough to get cut up, fellows," I called, "just long enough to show Orion we're lined and in order—just to give Huntoon and the boys a cushion to land upon. They're fighting for us—and the Vatican is open and ours. And we've got a get-away that Orion doesn't know—"

A cheer came up to me from the miners. That cheer choked me to tears—as torture had not done. And the fight was on, the steel singing.

"Fall back now—easy, men. There's plenty of time for a last look at the golden river—a last look at the old river and the dredge. . . . Orion can have it now—and the gold is all cached away in the Vatican. . . . And I say, men, look at Huntoon, at his day's work. The old Master knew a soldier—"

"And he knew the boss of us all," a hoarse voice said significantly, "but we didn't—"

"We're all one piece now," I called back, enthralled by the figure of Huntoon, who knew how to charge and how to stand, and what was harder still for him—how to give way before an enemy. He had disdained to leave his mule, but rode up and down, between Orion and our men, falling back—an attraction of shots and an inspiration of nerve.

"Keep the door open till the last man is in," I yelled, turning toward the Vatican; and a moment later I was in the midst of Huntoon's soldiers, breasting through them and swept back with them laughingly. I heard their queer talk amid a killing fire. . . . Orion had formed on the open slopes and was gaining ground in a business-like way—charging as skirmishers, and dropping to cover and fire every thirty or forty feet. I saw the angle of his forward line of rifles, as it swung to cover Huntoon and his careening mule. Now it occurred to me that my friend was known to the attacking party. With a clutch of fear, the

thought added that Orion would be especially eager to kill Huntoon for that reason. At this instant a shot felled his mule in full stride. A cheer from the skirmishers answered the fall. Huntoon cut it short by regaining his feet and resuming his inspiration. "I bellowed at him: 'Come on in, old man,—we're all covered. Everything is safe inside. Come on to breakfast—it's cold with the door open.'"

But the blithe ruffian wouldn't hurry. He had got his men safely home. All but a handful of his own sort were covered in the massive walls. I made for the little party—thinking what it meant to father wilful boys who refused to come in out of a storm. Huntoon had retreated soldier-like—until his party was safe. He saw me and called:

"Go back. I'm all right—I'm coming"—finishing the sentence from his knees. Again he popped up. And now I think he must have heard a last cry from one of our fallen, for he staggered forward toward a man who was down—bent over him and fell across the prone body. Orion's front was less than sixty yards away.

I had to have Huntoon. A chap at my side saw I had to have him. My friend, the remittance-man, was grinning up at me, but the man beneath was dead. A hand helped me to lift the smiling one—a steady hand in that murderous swarm. It was Maconachie, who had not left my side.

Orion's men were upon us as we gained the Vatican. I heard the clang of the bullets upon the iron portal—and felt suddenly the whole weight of Huntoon. A dozen hands stretched out to help us in, and the big door slammed upon the new masters of Tropicania.

Maconachie was on his feet with a wound in each arm. The miracle of my escape did not occur to me till afterward. The yells of Orion's men outside and the silent crowding at hand, were but vague matters of consciousness. . . . I was bending over Huntoon, who had been hit a dozen times.

"It's queer," he said, smiling at me like a lad grown tired at play, "how the booze can throw you. . . . They got some of Dole's stuff at the Pass last night. Me—Huntoon—sleeping in between, and Tropicania drunk at both ends. . . . Orion shoved a big bamboo bridge across at dawn—and struck a lot of all-winter sleeps. I'll bet he heard our sentries snore. That's what woke him up. . . . Queer how the booze threw me down without me taking a drink—"

"Huntoon, old soul,—you brought us in beautifully—"

He winced. "Oh, I know," said I, "it would have been a lot easier to charge—but it took a soldier to fall back. Only after you got the men within the shadow of the Vatican—you lost interest and forgot yourself—"

"Queer how the old red booze—"

"Yes—"

And just then I saw his forefinger wriggling—as if to beckon me closer.

"Back in old St. Louis—tell the little old lady—that I was the original river-water kid. . . . Leave me alone, Jason—these here are my obsequies. . . . Say to the old man—I mean Romany—that he looked good to me. . . . And to Old Top,—oh, you'll know what to say. . . . And what's coming—give to that Mission up the River. Mention the Mission in St. Louis, they're strong for Missions. . . . You'll go up the River sometime—give her my respects. God, even her?."

He didn't finish that sentence, but added:

"I've got to laugh at the old red booze, after all—how it threw me—and me sleepin' like a deacon in a dry country. . . . And say, Ryerson, we pulled together, didn't we? Member comin' down the coast to the Headland? . . . Why don't you get reckless and put on a clean shirt—"

That was the last he said.

I went about the work coldly. I couldn't get it all straight—that Huntoon had crossed over—that just the machine he had fought with, was there by the wall, covered. . . . The air was getting close. All Tropicania was packed in the temple, and in sickening silence. They were waiting for me.

Orion would kill Huntoon this instant a full stride. A shers answered it short by resuming his at him: man,—we're all safe inside. it's cold with an wouldn't s men safely of his own massive walls. party—thinking or wilful boys out of a storm. ed soldier-like safe. He saw l right—I'm the sentence he popped e must have one of our d forward to ss down—bent ss the prone as less than on. A chap ave him. ice-man, was e man beneath ed me to lift hand in that s Maçonachie, as we gained the clang of portal—and e weight of ds stretched the big door w masters of his feet with The miracle occur to me of Orion's nt crowding matters of bending d been hit a smiling at ed at play, w you. stuff at the atoon—sleep- cania drunk on shoved ross at dawn inter sleeps. tries snore. up. me down you brought "it would charge—but back. Only the shadow interest and d booze—" s forefinger me closer. ell the little iginal river- alone, Jason quies. an Romany me. know what coming the River. St. Louis. ns. etime—give a her?." nte, but e old red hrew me eacon in a , Ryerson, ? Member the Head- you get a shirt—" coldly. I at Huntoon e machine ere by the r was get- was packed ng silence.

"Orion thinks he's got us penned, and won't hurry," I said. "But we must get out of here—at least, all but a guard to keep him guessing. Orion can't break this iron door without artillery, and it will take time to get a big gun. The dynamite is all stored here. No pipes nor cigarettes. Yes, I know how excitement makes one itch for a smoke. Also, there are women present. . . .
"Fellows," I went on, raising my voice, "in so far as I'm concerned, there'll be no tales told when we pass in review before the old Master—which won't be long now, I think. Orion fooled us when we were changing a guard at the Pass, and I had called Huntoon down for a conference. There wasn't any trouble on the dredge nor the river—as for the rest, we'll lay it to old King Alcohol, and we won't be so far wrong. . . . Now I'm going to show you the gold and lead you out into daylight."

Water was brought and the panel swung. . . . Directly upon opening the second door to the mountain passage, Yarbin's hand reached for mine. He said that the women had heard the firing and were frantically awaiting word—that the old Master was being carried in on a litter across Lost Valley, and would be with the women in a half-hour. I told him hastily of the attack; and that all the placer people were behind, in the Vatican. He hurried back through the passage. And now work began.

A dozen men were left in the Vatican. The rest carried the gold and stores through the passage and up the trail to a place Yarbin designated. Rifles, ammunition, provisions—all the big essentials except the dynamite were removed. . . . At mid-forenoon Yarbin brought word that the old Master was anxious to see me. They had raised a tent for him at the top of the trail from the gorge. As I gained the eminence where the pennant fluttered from the bamboo-cane, I looked across to the terrace where she had stood. And there she was waiting now as before. She waved at me. That was all. I asked no more. . . . She had left her father that I might go to him.

That tent at the top of the gorge was like the hall of a dying emperor to me. He had kept his word about preserving enough vitality to see the end of his journey—but there seemed not much left over. . . . He talked blithely, listened with that quizzical look when I told him of the attack of the morning; and when he began to look too closely at me, I told him of Huntoon.

The Alcyone had been driven hundreds of miles off her course on the way up and had reached San Diego ten days late—but with her lives and her gold. How Romany toiled may be imagined, since his return to Lost Valley had been but three days behind schedule. The office had been established; the assay completed. Each man's allotment for the first and main shipment was in the form of an order, ready to be delivered on the morrow. Leek was in charge at San Diego. The Alcyone was once more lying in the mouth of the Clara, ready to carry back the men and treasure. There was currency for Yarbin. The terrible Tropicania game was won.

Romany seemed to respect my tension regarding questions. I must have been half-mad. All I knew, was that my work must be finished. There were a thousand things I wanted to ask the old Master, but I was ashamed that we had not quitted the Pass—instead of losing it. I still kept hearing Huntoon's words. The flesh was broken upon my back and throat and hands and face. The men literally leaped when I spoke—as if I were the devil.

All that day we toiled, and Orion was more or less quiet. I think he was puzzled. He wanted to give us a taste of confinement and bad air, before treating with us in the usual military fashion. At least he sent no envoys to the great iron door.

Late that afternoon, when all the dynamite had been carried from the trachyte panel for the last time. Huntoon and others—too many the sacrifice—were in the vault, under the tarpaulins which had covered the gold. . . . And now I detailed three of Maçonachie's assistants—explosive-experts—to block the passage. I wanted the very heart



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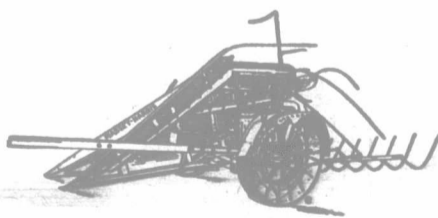
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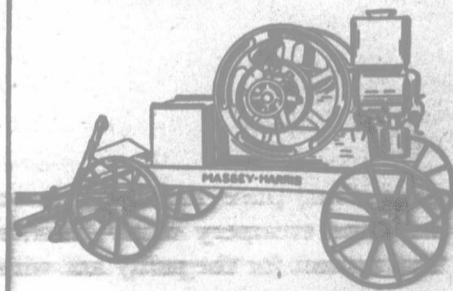
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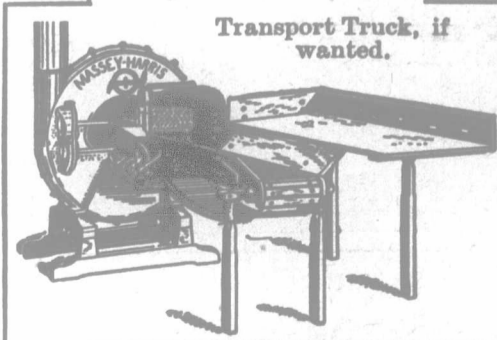
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of the mountain emptied into it, beyond the possibility of Orion getting through even if he succeeded in wrecking his way into the vault itself.

Maconachie's aids went about the job scientifically, explaining that it would take several hours to get the powder planted. A series of three or four blasts would obliterate the wonder-working of the Quichuans. They appeared to figure the result, more or less exactly, of each blast. . . . I bade them make haste. There was no rest for me, until they were finished. The thing had become a mania. I had sent repeated excuses to the old Master. I had told Yarbin I must see this through. . . . Between nine and ten that night, one of the experts assigned to the work, found me to report that the powder was planted—three charges which would seal forever the inner end of the passage. I ordered the fuses lit, and paced in the darkness meanwhile. . . . Twice in the next fifteen minutes, we felt the seismic throbs; then a second's fraction of reading adjustment—giants fighting in a frail room—and the crashes came up the gorge like the end of all things. . . . I stood apart in the darkness—waiting for the third. I thought the blood would burst from my eyes, as I waited. And after the explosion—I belonged to them who were watching, but who would not come near—until I fell.

21

The mountain peaks across Lost Valley—I thought for many days—belonged to another planet. I could just see the black and glacial tips through the tent-opening; and from where my head lay, no depth of valley was in view—just the ethereal divide and the sky, and that far, alien coast of peaks.

Distantly I remembered the men filing past my cot—holding their hats in their hands; and one voice that put out the day and hurt me with rope and beam and stone and evil night.

There was a renewal of acquaintance with those different planes of being that had puzzled me, on the journey down the Yellow River. Something was left from the faces that filed interminably by—a goodness, a strength, a pity—thrilling from the hard hands that touched mine and from the faces of men who did not try to make words work.

First of the tangible things, a pair of long lank legs. These shut off my other world one morning. I followed them up and up rapidly wearying, until (as one scrambles panting to a crest) I found Maconachie. The face was worth finding. I think the blasting did it. Often those are rare friends that you have to blast for. He carried his arms like flippers, for they were bandaged and in splints. This recalled how we had brought in Huntoon after his last stand, and how Mac had dropped his part of the burden at the Vatican door.

He would not talk to me; but always when I opened my eyes, his smile burst into bloom. Mac's mother may have known that smile. Sometime possibly another woman will get it—but I am the third, having blasted for it.

For a long time no one would talk to me. . . . Often I seemed back with Yuan Kang Su (by the rivers of Babylon, I was to write), sitting in that heavenly dawn-mist on the banks of the Calderon. There was never a dawn so soft, so blue. I thirsted to drink again of that vapory ocean as the day came up over the mountain like the tip of a flamingo feather. But always I would remember China—not the mother, but the mob,—the mob that had destroyed him because he was an individual. Always the mob is frenzied by an individual. . . . A God-touched woman—that was Yuan's word—such a woman perceives a shining One in the midst of the myriad that wait upon the Shore. She calls—and eagerly He comes. She gives him to the world—a man. His race watches him rise, follows a little way—then, in sudden earth-madness breaks his body. But afterward, in the clear light that comes after the martyrdom—the race discovers that in following ever so little, it has come to a better country. . . . And I had come to a better country for knowing the nobleman, Yuan Kang Su.

The days passed with unnatural swiftness. There was a high light upon

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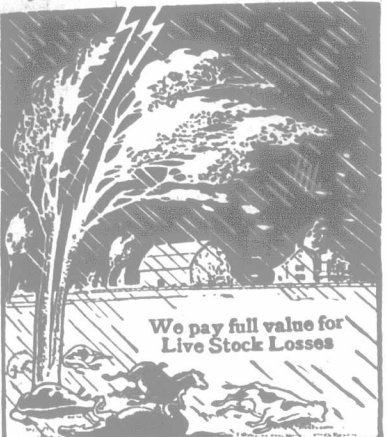
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them. . . I knew that if I could awaken just exactly as I wanted, Mary Romany would be there. . . The first I remember of real talk was with Lillian Yarbin. She was splendid and more than ever unbounded from long companionship with Mary Romany. . . Then a day afterward, the old Master came, on the arm of Yarbin. He caught my hand and held it up to the light. It was whiter but peeling. . . I wondered at him, as he started to speak. This was before he began to bring me notes. Very carefully he told me of the day when the miners marched out of Lost Valley—how twenty of them would not go, until they had come here to see me. He repeated every detail as if I were a child—how they carried their hats, and touched my hands, and muttered my name and other things.

"When you are an old man, Tom," he added, "you will remember what I am telling you now. You will be glad for every detail. It's a better thing than I have ever done. They will tell it, after the sting goes out of the memory—that night in the Vatican. They will tell their wives and children; and whenever they read or hear of someone in the world proving his manhood—they will think of you opening the iron door. . . I'm glad I could see them—as they made their last call here."

I knew better, but his eyes held me, delighting in the happiness he gave.

"When I asked for volunteers to stay with us in Lost Valley—the whole twenty offered," he continued. "We needed but five or six. Maconachie refused to leave. I want to know sometime exactly what you did to Mac. . . Yarbin here and the good lady—we couldn't spare—"

"They are not quite ready for us in the States," Yarbin said with a smile. "I've sent instructions to Leek to take care of Yarbin's case."

"Then there's just a handful left in Lost Valley?" I asked.

"A round dozen. Two women, Mac Yarbin, you and I—and six men."

"How long since the placer-crew left?"

"Twelve days ago—the second day after the blasts."

I laughed, but only Mary Romany would have known why. Fourteen days I had drifted, but the days of the Year had registered just the same. Less than three weeks left.

"And how did you happen to stay in Lost Valley—this little party?"

"Take your choice of several reasons: After the bad weather off Lower California last trip, I was very glad to wait for the Alcyone to come back after this voyage. I was always a landsman. Why, I've had a chance to draw a breath of real life—something that hasn't to do with gold. The last two weeks have been wonderful to me, who had to be carried across the valley from the ship—"

"I saw wrong that—that day of the blasts," I said. "I thought you were dying."

"We all thought you were, Tom," he answered. "You were a ruffian and a mad-man. Nobody dared approach you—until they 'let go' the powder. Then you crumpled. . . The quiet here has been important for you."

The day afterward, the old Master came alone and whispered: "It was Mary who first thought of staying. She asked if we were safe from the other valley. I replied that we were as safe, as if the Pacific lay between. She asked if there were provisions in plenty, and told her we had enough for a year. It was then declared—you were not to be moved—"

I was floating away off among the Covent memories. . . The words of Mary Romany one morning in the Other Room returned: "You think there is silence here and solitude. This is but the edge of that silence and solitude I desire,—when our day comes. I think I am very strange and terrible, but I want to meet you in some land the giants have left—some vast and mighty wilderness—that I can make glad for you."

"She is well to-day?" I whispered wearily.

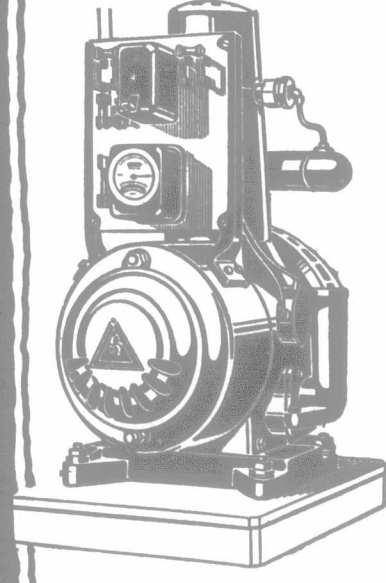
"Yes."

"And she does not come near—here?"

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You do things in your own way—you two," he added queerly.

I laughed. Lillian Yarbin tried hard to understand. I doubt if she ever tried so hard to understand anything. She watched me often with a queer expanding smile and a steady intent look in her eye—then she would slap her hands together and shake her head.

"But she's here and you're here, and you are dying for each other—"
That was as far as she could go. There was a fineness about Yarbin. It seemed to keep him from speaking. But then he never told his own history. I often wondered if Teck and Morgan waited to come into Tropicania with Orion.

Now that I was improving so rapidly, a letter came every day. I wrote of Yuan Kang Su and Huntoon—how strangely dear they were—of Yarbin, Maonachie and the old Master. A man's friends—the ships that come and go from his harbor, and are so welcome. These brought profits to me, dearer than the sands of the Calderon. A man's fleet of friends—honors a man brings a woman. I often think of lying beached and broken at evening, and quietly hurrying in from far seas—the brothers of the fleet. . . . I told Mary Romany of the messages we must carry to St. Louis and up the Yellow River, pilgrimages together.

"Yes, there was a light upon the last days—hours with Romany, with Maonachie, a dinner with Yarbin and his Lillian; a strange but intimate association that brought out values from the depths of the six miners who had remained against every desire of their hearts. Then, alone with my thoughts—hours and hours of gratefulness and restoration.

Mornings and evenings across the mountain-side from Mary Romany's terrace to mine—the mute waving of hands.

Once, as I was going to her father's tent, she was just coming forth. She was startled, smiled; for an instant searched my face as a mother searches the face of her son, home from his first far voyage. On she passed—head bowed in the perfect olive glow. Nothing had I missed, the seam at her shoulder, the white at her temples, nor grace, nor glory. . . . And I did not go to the old Master's tent after that, but up the mountain to the end of all trails, where the air began to nip from the snows—alone, to realize, as I might, the mystery and beauty of a loving woman.

Near the end of all possible ascending (the glacier far above was like an uncut diamond set in rusted iron) I found a spring, and traced it to the source, ice-cold and pure. The air had sharpness from that ice-jewel, but brave frosts were about the Spring, and a network of vines and creepers. There I stood in the dimness—and the source became a shrine to me. For a moment I touched Realities; for a moment I had vision and human kindness—an excellent stamina from the high source of good things. And this has remained with me: that Mary Romany and I were one: that even if I knew her no more as now, we were one; that flesh is but a tittle of the meaning of a great love. And a continuous lustre has remained from that realization, a fresh fineness of patience, a new mastery of self.

I parted the network of vines at last; and beheld with a strength of eye that I had not known before—the Jovian vista across Lost Valley, and the great Aondean peaks beyond, their imperial contours, monster ice-packs; and in that inter-stellar stillness, I knew then that one might learn easily to hear his soul.

That night I wrote a note, and told of the realizations,—and the shrine of them, the high gushing Spring. And that night, I told Maonachie the secret of happiness; at least I caught myself declaring devoutly: . . . and when you have found her—go away for a Year. Say to her, that you go to search for a flower of pure spirit, that takes root amid loving and dreaming and waiting. . . . Queerly tucked away among the sentences of a letter I received the next dusk was a line—that sometime I should find her there at the Spring.

There remained but three days of the Year. I had passed the afternoon with the old Master. Poise and peace

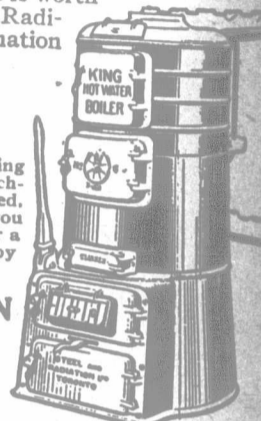
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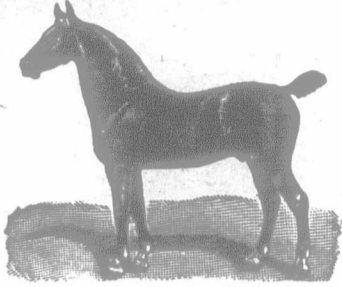


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had come to the restless soul. We were very close together; there had been a fine touch to our relation from the first moment in Tropicania.

I returned to my tent, as the sun reddened the seaward range. . . . There was a moment (we never needed words nor watches) when I stepped out to look across the slopes where the marguerites had been—to her eminence. This was our Retreat. She was standing there.

And she did not wave to me. As clearly as if her thought had used my mind, I knew that instant—the end had come to our waiting.

Her arm lifted, the hand, pointing to the snows of the mountain, to the end of all trails. Her loose sleeve had fallen, as the hand raised—the bare white arm pointing toward the Spring. . . . Then Mary Romany turned, not to her tent but to the mountain-trail.

I returned to cover and knelt, as I had lain so many days—facing the other world across the divide. I could not, without this outpouring, have contained my thankfulness for life and love and the vision of it, and for the three days—her gracious gift to me.

I was far behind, climbing with the shadows, as the sun sank over-sea. Lost Valley deepened, became mystic with night, but a saintly glow was fading from the leaves above, and a red ray fell like rust upon the black iron setting of the glacial diamond. This was Rising Road. . . . Bright Angel Trail.

It seemed as if I were a spirit, following a fairer spirit, up to the Spring where life began—to the place where the Gods had touched a new world into creation.

The finer moments of life were with me—music of Oporto, palace at Petersburg, the kiss at Hong Kong, garden of the yellow rose, deck of La Samaritaine, sparkling beaches at Covent, the Other Room, terrace of the marguerites; and blending curiously with Mary Romany in all these pictures was a mother-tone I had lost in far wanderings. . . . The spirit of things well-done lived with me, the valor of dead friends, from the blue mist of Yuan's dawn, and the dim temple of Huntoon's passing; and all weariness and fever was healed, and the cramped places of the heart breathed.

The thin stream of the Spring whispered in low animation the secrets of life. The red and gold had waded out of the heights—only the pale lustre of the shrine.

I parted the leaves. All was shadow—until the glow from the peak left my eyes. Then I saw her standing, among the contours of the darkness, still as the Night itself—and behind and beyond Mary Romany, for an instant (curious the light like a cascade in the moonlight)—tarry the Shining Waiting One.

THE END.

Questions and Answers.

1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Making a Will.

Will you kindly state in your columns if a will is just as legal if drawn up by any other than a lawyer? Ontario. SUBSCRIBER.

Ans.—Yes, if correctly drawn, executed, declared and witnessed, and with attestation certificate duly attended to.

Deer Hunting.

1. Is a man permitted to go on fenced property when deer hunting?
2. Can a man hunt on an island on which he knows there are deer? H.C.

Ans.—1. Strictly speaking, no. But, practically he may do so, unless notified not to hunt or shoot thereon, provided he avoids trampling upon growing or standing grain.
2. Yes, unless notified not to do so.



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Meadow Lawn Shorthorns We are offering a choice lot of bulls at very reasonable prices. An exceptionally good one sired by Clan Alpine 2nd, No. 88387, G. D. Donside Alexandra (imp.) No. 59513, and any one wanting a right good herd header would do well to secure this bull, as he is a smooth, well proportioned fellow that attracts attention at first sight. **F. W. EWING, G.T.R. and C.P.R. R.R. No. 1, ELORA, ONTARIO**

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Alex. McKinney, R.R. No.1, Erin, Ont.

Gossip.

The National Dairy Show.

The great National Dairy Show to be held at Springfield Mass., promises to be the best yet in dairy cattle displays. Monday, Oct. 16, will be Guernsey Day; Tuesday, Oct. 17, Holstein Day; Wednesday, Oct. 18, Ayrshire and Brown Swiss Day; and Thursday, Oct. 19, Jersey Day. Plan to attend and see your favorites judged. A big horse show will be staged evenings, and everything promises well. The people of Springfield have offered to throw open their homes, and if desirous of reserving accommodation, write the manager of the show W. E. Skinner, or to the Convention Bureau of the show, Springfield, Mass.

The McKinnon Shorthorn Sale

Breeders wishing to purchase Scotch Shorthorns will have an opportunity to do so by attending E. V. McKinnon's dispersion sale of thirty-six head, to be held on his farm at Rockwood, on Monday, October 9. In the offering are fourteen breeding cows, some with calves at foot; eight heifers that have been bred; eight heifers that have not reached breeding age and six young bulls. Three of the heifers have been bred to O. A. C. Augustine 88721, and one to Sultan Stamford, a son of Browndale. Among the bulls are two calves by Gainford of Salem, a son of Gainford Marquis. Some of the families represented in the herd are, Matchless; Minas; Marr Floras; Cruickshank Secrets; Miss Ramsdens; Russell Isabellas; Strathallans; Village Blossoms and Wimples. The herd has practically all run out on grass during the summer and as the pastures have been poor they are not in high flesh. However, they are in good breeding condition. The farm is three miles north of Rockwood and nine miles east of Guelph, just off the Guelph-Erin gravel road. Trains will be met at Rockwood on the morning of the sale and lunch will be served at noon. Owing to the holiday coming on Monday there are reduced rates on all railways.

The Hume Ayrshires.

Official testing, careful breeding and systematic culling has brought the noted Ayrshire herd of Alex. Hume & Sons, Campbellford, Ontario, to a high standard, not only from the viewpoint of production, but also as a show herd. Mature cows have reached 14,600 pounds under official test and one of the two-year-olds now under test has in eight months given 7,000 lbs., and is still milking 30 pounds a day. In competition with the country's best, the herd ranks high at the shows. All the females of milking age are either in the official record or are now running in the test. All under eighteen months are get of that great bull, Hillside Peter Pan, Imp., senior and grand champion Ayrshire bull at Toronto National this year. He is a bull of remarkable lines and of excellent quality. On his dam's side he is a grandson of the renowned champion, Duke of Peter Pan, One of his full sisters in seven months as a two-year-old gave, on official test, 7,000 pounds of milk. On his sire's side he is a grandson of the equally renowned champion Nethercraig Spicy Sam. From this it will be seen that the sire at the head of this herd comes by his championship, splendid form and excellent qualities by inheritance. The majority of the milking females in the herd are either imported or sired by imported stock. Breeders wishing to purchase foundation stock or herd headers write, A. Hume & Sons your wants.

The use of liquid fire, revived by the Germans in the present war, is a survival of the old "sea-fire," says Literary Digest, or of something that seems to resemble the descriptions of that Byzantine precursor of gunpowder. Something of the same sort, it is said, was suggested to General McClellan during the American Civil War, but rejected by him as not in consonance with the principles of modern warfare.

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of high-class, fashionably-bred Scotch Shorthorns in calf to Sittyton Sultan's Dale, a Mina-bred son of Avondale, dam by Whitehall Sultan is of interest, come and examine my offering.
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With 125 head to select from, we can supply young cows in calf, heifers from calves up and young bulls from 9 to 18 months of age, richly bred and well fleshed. In Shropshires we have a large number of ram and ewe lambs, by a Toronto 1st prize ram; high-class lot.

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We are offering this fall the choicest lot of young herd headers we ever bred, several are of serviceable age, high in quality, rich in breeding. Also a number of heifers.
GEO. GIER & SON, WALDEMAR, R.M.D. Grand Valley Sta.

Questions and Answers. Miscellaneous.

A Renter's Query.

A rents farm from B for a number of years and B sells farm. Would A have to quit before time expires, A having lease to hold farm for full time.

A SUBSCRIBER.

Ans.—No, not unless the lease read subject to sale.

Chauffeur Requires License.

1. Can a person answer an advertisement wanting a chauffeur as long as he understands a car fairly well, or does he have to pass an examination for that purpose?

2. Do you have to have a license to be a chauffeur? H. Y.

Ans.—1 and 2. A chauffeur must pass an examination and secure a license before he can qualify for a position as such.

Water Supply.

1. Our well is dry. We are 20 rods from a river, with a fall towards it of about 20 feet. Would a gasoline engine draw water that far?

2. We have a spring on the roadside 40 rods away, with a fall of 5 feet towards the spring. Would an engine draw the water that far?

If any of the readers of the Advocate get their water supply this way I would be pleased to hear from the same.

J. D. L.

Ans.—1 and 2. Providing the water is not over 25 feet below the pump-sucker water can be drawn a considerable distance with an ordinary pump. Therefore, there should be no difficulty in securing the water supply from either source with an ordinary suction pump driven by an engine. In fact, some draw water about 20 rods with a hand pump, but it is heavy work.

Underdraining a Farm—Seeding Down a Wheat Field.

1. When is the best time to seed down a field of fall wheat, in the fall when the wheat is sown or in the spring? The soil is sandy and the field is rolling. What mixture would you advise sowing? Would alfalfa grow successfully on this kind of land?

2. A has a farm of 75 acres with a mortgage on it. The farm requires underdraining. If A increased the mortgage say another \$500 to drain the farm, don't you think he would be able to lift the mortgage a few years sooner? SUBSCRIBER.

Ans.—1. Some have had good success seeding in the fall, but the general practice is to leave at least the clover seeding until spring. There is always the danger of wheat winter-killing, in which case the seeds would be lost. It can be sown before the frost is all out of the ground in the spring. The mixture depends on what use is to be made of the crop. If for a permanent pasture a mixture of several perennial grasses would be advisable, but we presume the crop is required for hay. If so, 6 or 7 pounds of red clover, 4 pounds of timothy, and 1 1/2 pounds of alsike seed makes a good seeding. The amount of alsike and timothy seed might be lessened and the red clover seed increased. Alfalfa grows on a variety of soils, provided the underdrainage is good and the soil is not acid. It might do all right on your soil, but it is not so certain a crop as red clover. If desirous of growing this valuable legume it is advisable to try it on a small acreage before going into it too strongly.

2. The past two seasons have clearly demonstrated that it pays to tile-drain soil that has no natural drainage. Many men have cleared the mortgage off their farms by first going more heavily into debt for underdrainage. It depends largely on how badly the farm requires drainage, how carefully the work is done, and how good a manager the man is.

A sentry, an Irishman, was on post duty for the first time at night, when the officer of the day approached. He called, "Who comes there?" Officer of the day, "was the reply." "Then what are yez doin' out at night?" asked the sentry.

Back Your Aim with Confidence in Dominion—the only Canadian-made ammunition. When the one good shot of the trip arrives you will never know the disappointment of a missfire if you use Dominion Big Game Cartridges. At that instant when the moose or deer appears the knowledge that a true aim is backed up by true ammunition helps mightily. With Dominion .303 British Soft Point—or any of the other big "D" Cartridges—the sportsman is sure of ammunition with a real "hit and stop". No matter what big game you seek there is a Dominion Cartridge to stand by your aim and give you confidence. Send for our attractive hanger "A Chip of the Old Block". Dominion Cartridge Co. Limited, 829 Transportation Building, Montreal.

DISPERSION SALE OF

Scotch Shorthorns

30 Females

6 Bulls

on the farm of E.V. McKinnon, Rockwood, Ont.

Tuesday, Oct. 10th, 1916

Send to E. V. McKinnon, Rockwood, R.R. No 1, for Catalogue of Dispersion sale of Scotch Shorthorns, to be held at his farm, 3 miles north of Rockwood and just north of mile-post "9" on Guelph- Erin Gravel Road, on Monday, October 9th. Matchless, Mina, Marr Flora, Cruickshank Secret, Miss Ramsden, Russell Isabella, Strathallan, Village and Wimple families to choose from.

Trains will be met at Rockwood, Ont., on morning of sale. Lunch served at noon. Sale at 1 p.m. Terms cash or 6 months' credit with interest on bankable paper. CAPT. T. E. ROBSON } Auctioneers. R. J. KERR } McKINNON BROS., Proprietors

Escana Farm Shorthorns

FOR SALE: Two imported bulls, proven valuable sires; 12 bulls, 10 to 20 months old all by imp. sires and from high-class dams; also for sale, 20 heifers and young cows, several with calves at foot, all of very choicest breeding, and especially suitable for foundation purposes. Mail orders a specialty. Satisfaction guaranteed.

MITCHELL BROS. Burlington, P.O., Ont. Jos. McCrudden, Manager. Farm 1/2 mile from Burlington Jct.

Robert Miller Still Pays the Freight—And he is offering in Shorthorns some of the best young bulls and heifers that can be produced. Young bulls fit for service, some younger still; heifers ready to breed and younger, and some in calf. They are of the best Scotch families and some of them from great milking families. They are in good condition and made right, just what you want to make a proper foundation for a good herd, and suitable to improve any herd in the land. They will be priced so that you can afford to buy, if you will tell me what you want. Our business has been established 79 years, and still it grows. There is a reason. ROBERT MILLER, Stouffville, Ont.

Canada's Grand Champion Shorthorns of 1914-1915

are headed by the great "Gainford Marquis" Imp. Write your wants. J. A. WATT, ELORA, ONT., G.T.R. & C.P.R.

Scotch Shorthorns, Yorkshires, and Oxford Downs Our Shorthorns are of the most noted Scotch families and the Scotch (imp.) bulls, Joy of Morning (imp) = 32070 =, Benachie (imp.) = 69954 =, and Royal Bruce (imp.) = 80283 = have been used in succession. Two choice bulls of breeding age and heifers for sale. Also sheep and swine. Erin Station, C. P. R. L.-D. Phone Geo. D. Fletcher, Erin, R. R. 1

OAKLAND SHORTHORNS 51 to select from. 20 breeding cows and as many choice heifers, many of them bred, also a lot of choice young bulls, all of the dual-purpose strain. All sired by choice bulls and registered and offered at prices to live and let live. JOHN ELDER & SONS. HENSALL, ONT.

SPRING VALLEY SHORTHORNS Herd headed by the two great breeding bulls, Newton Ringleader (imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex. KYLE BROS., DRUMBO, ONT. Phone and telegraph via Ayr

Sorce Glen Shorthorns When in want of Shorthorns visit our herd. We have 70 head to select from, Minas, Fames, Miss Ramsdens, Florences. Also several young bulls of breeding age—level, thick, mellow fellows and bred just right. James McPherson & Sons, Dundalk, Ont.

GLENGOW SHORTHORNS AND COTSWOLDS Pure Scotch in breeding, we have an exceptionally choice lot of bulls for this season's trade, ranging in age from 8 to 15 months, big mellow fellows and bred in the purple. Also ram and ewe lambs of first quality. Wm. Smith & Son, Columbus, Ont. Myrtle, C.P.R., Brooklin, G.T.R. Oshawa, C.N.R.

Imported Shorthorns Our recent importation of thirty head has arrived at our farms. We have imported cows with calves at foot, imported heifers that are in calf, imported yearling bulls and bull calves, also home-bred females and bulls. We are pleased to have visitors and will meet trains at Burlington Jct. at any time, if notified. J. A. & H. M. PETTIT, FREEMAN, ONTARIO

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Glenfoyle Shorthorns Large selections in females, all ages, bred from the best dual-purpose families. One extra choice fifteen-months bull, some younger ones coming on. Priced well worth the money. Stewart M. Graham, Lindsay, Ont.

Northlynd R.O.P. Shorthorns and Jerseys Present offering: One Shorthorn bull old enough for service, whose dam, his dam's full sister and his grandam in six yearly tests made an average of over 8,500 lbs. milk, testing over 4% in an average of 329 days. G. A. Jackson, Downsview, Ont.

Burnfoot Stock Farm—Breeders of dual-purpose Shorthorns with a splendid conformation for beef. Visitors welcome. S. A. MOORE, Prop, Caledonia, Ont.

Shorthorns and Swine. Have some choice young bulls for sale; also cows and heifers of show material, some with calves at foot. Also choice Yorkshire sows. ANDREW GROFF R.R. NO 1, ELORA ONT.

Maple Leaf Shorthorns and Shropshires. Now offering some choice heifer calves; also two Show bulls, fit for service, a Mina and a Gloster. In Shropshires some good ram and ewe lambs; shearing ewes by Nock 16 (imp.), this ram also for sale, one of the best show and breeding rams in Ontario. John Baker, R.R. No. 1, Hampton, Ontario.

Shorthorns Males, females, one good red bull 16 months, five younger, three fresh cows, calves by side, heifers. Right dual-purpose breed and kind. Thomas Graham, Port Perry, R.R. 3, Ont.

Shorthorns—"Fall Fillers"—Our Shorthorns are bred and developed for big milk production. If you want a stock bull bred that way we have several; also Clyde, stallion rising 3, won 2nd at Guelph the other day in a big class. P. Christie & Son, Manchester, Ont.

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e Auld Herd Big Bees 2, Guelph, Ont.

Favorite, one of the best we know of. Also young (imp.) Loyal Scot and price. east of Guelph, C.P.R.

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Booth. Also five (5) months old, of the colors—reds and roans. Oakville, Ont.

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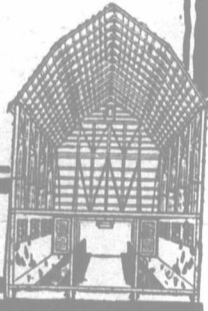
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1 YEARLING BULL

Bull calves from 10 months down. Could spare 10 cows or heifers, bred to the great bull, KING SEGIS PONTIAC DUPLICATE. R. M. HOLTBY, Port Perry, Ont.

Walnut Grove Holsteins

Herd headed by May Echo Champion, full brother of May Echo Sylvia, who made 36 lbs. butter in seven days. Females for sale from one year old upwards. Prices right for quick sale.

C.R. JAMES, Langstaff P. O., Ontario
Phone Thornhill

Bulls, Bulls We have several young Holstein bulls for sale, just ready for service. Sired by the great bull, King Segis Pontiac Duplicate, and our junior herd bull, Pontiac Hengerveld Pietertje, and from high-testing dams. Prices low for the quality. Write and get them. Manchester, G.T.R., and Myrtle, C.P.R. stations. Bell Phone.
R. W. Walker & Sons., R.R.4, Port Perry, Ont.

HOLSTEIN BULLS

for sale. Hero DeKol Senator, 14373; calved May 10, 1912; sire, Highlawn Senator DeKol, 9274; dam, Griselda, 4323, gave 105 lbs. milk in 1 day. Also Sir Douglas DeKol, 28221, calved March 17, 1916; sire, Hero DeKol Senator, 14373; dam, Lady Alice May, 13298. Both bulls are choice individuals.
Woodward Jackson, Franklin, Centre, Que.

Questions and Answers. Veterinary.

Chronic Navicular Disease.

Have a horse that became lame last fall, in front foot, and foot got smaller than other one. We turned him into a box stall and blistered the foot around coronet. The foot got larger and he was all right again before spring, but got lame again in summer. We turned him on grass and blistered again. He is working now but starts off lame, but lameness leaves after going a short distance, but cannot trot much.

1. If nerve was taken out of foot would it stop lameness?
2. Will growth and decay go on the same after nerve is taken out of foot as before?

SUBSCRIBER.

Ans.—1 and 2. Your horse is evidently suffering from chronic navicular disease. You have done about all that can be done for such a case. Nerving a horse will usually cure the lameness and will not interfere with the growth or decay of the hoof and yet it is not an operation that is to be commended. It removes all sensation, and a simple puncture might form pus and develop into very serious conditions before it would be noticed by the owner. As a rule neurotomy or nerving is not practised except in cases where the owner intends to dispose of his horse shortly, and let some other man take the chances with him going wrong later on.

Sores on Horse.

Have a good, strong horse about 10 years old. Last Spring sores broke out on inside of hock. These get scabby and rub off. Never got very bad nor seemed to trouble him unless rubbed hard. (Have been using zinc ointment.) The hock puffed a little, so I blistered about 6 weeks ago, which did good, but the sores are still there. He is not working much, a good deal on pasture and is well and hearty. Have not fed any oats lately not even when working him. Have been giving him sulphate of iron and gentian, a teaspoon of each once a day in bran. It is hard to get a veterinarian up here. Trust you can tell me a remedy as I want to get him right. He has had a little scratches since last fall. Have heard of lye as a sure cure. Do you consider it safe to use? How much saltpetre do you give a heavy horse weekly?

O. A.

Ans.—Some horses have constitutional predisposition to this trouble, in which cases it is most difficult to overcome. Get one dram of bichloride of mercury, and mix with a pint of water and apply to the sores twice a day. Feed on soft, easily digested food. See that he gets regular daily exercise. Keep the parts clean, but do not wash very often. When you do wash, do it most thoroughly using strong soap suds to which about 10 per cent of lye has been added. A weekly dose of saltpetre for the ordinary horse would be about a heaping teaspoonful.

V.

Miscellaneous.

Hired Man.

I was hired by J. W. in April at \$240 for one year. But that wage has since been changed \$40. Now, as my brother has got crippled in France I feel it is my duty to go also. Can I claim any wage for the five months that I have been here, if I enlist?

YOUNG ENGLISHMAN.

Ans.—Yes.

Line Fence.

Father deeded a farm to his son 22 years ago, and the father owned it 50 years. His neighbor agreed with him about the line fence, the father and son taking back half with only one creek, crossing, and the neighbor taking front half with three creeks crossing. The neighbor sold his farm and the new purchaser wants the father and son to repair two creek crossings, which would mean about two-thirds of the line fence. Can he change the old custom which was in vogue for many years?

G. H.

Ans.—Not likely, particularly if there is an agreement in writing.

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A roof that has stood rains, wind storms, and flying sparks for 18 years—the heat of 18 summers—the terrors of 18 winters—and is still giving service—carries its own recommendations.

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Make Big Money Baling With an Admiral

King Segis Pontiac Paul 15940

WE have for sale a few sons of the above bull, ready for service, and whose dams are large, heavy-producing cows. Here is an opportunity to get the blood of KING SEGIS and KING OF THE PONTIACS at reasonable prices. Correspondence solicited.

Also Berkshire and Yorkshire Swine

Larkin Farms Queenston, Ontario

HOLSTEIN CATTLE

The only herd in America that has two sires in service whose dams average 119 lbs. milk a day and over 35 lbs. butter a week. Cows that will give 100 lbs. milk a day are what we are trying to breed. At present we have more of them than any other herd in Canada. We can supply foundation stock of this breeding. Visitors always welcome. Long-distance Phone.

D. C. FLATT & SON, R. R. 2, HAMILTON, ONT.

For Sale—Sons of King Segis Walker

From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application.

A. A. FAREWELL, OSHAWA, ONTARIO

Evergreen Stock Farm Registered Holsteins. The kind that tests 4% and wins in the show ring. Could spare a few yearling heifers, or if you want a choice young bull, eight months old, we have one that is strictly a gilt-edge individual, almost as much white as black. The records of his dam, sire's dam and grandsire's dam average over 30 lbs. butter in 7 days and nearly 100 lbs. of milk per day. For quick sale we have priced him within your reach—\$150.

A. E. HULET, BELL PHONE NORWICH, ONTARIO

FAIRVIEW HOLSTEINS

Anything in herd for sale which consists of 22 cows, 6 two-year-old heifers bred to freshen this fall and early winter, nine yearling heifers bred to grandson of the great King Segis, and nine heifer calves. All bred in the purple and priced right.

Fred Abbott, R. R. No. 1, Mossley, Ont.

DUMFRIES FARM HOLSTEINS

Think this over—we have 175 head of Holsteins, 50 cows milking, 25 heifers due to calve in the fall, and 60 heifers, from calves up to 2 years, as well as a dozen yearling bulls, and anything you may select is for sale. Breeding and individuality the very best. S. G. & Erle Kitchen, St. George, Ont.

PIONEER FARM HOLSTEIN HERD

Of long-distance record makers, the kind that milk heavy and test around 4 per cent. the whole year. Of the six highest butter-fat-record two-year-olds in Canadian R.O.P., one half were bred at Pioneer Farm. Young bulls for sale from dams of the same breeding as these and sired by Canary WALBURN RIVERS, R. R. No. 5, INGERSOLL, ONT. Phone 343L, Ingersoll Independent

HOSPITAL FOR INSANE, Hamilton, Ont.

Holstein bulls only for sale, four fit for service, one being a son of Lakeview Dutchland Lestrangle, and the others from one of the best grandsons of Pontiac Korndyke, and large producing, high-testing R. of P. cows. APPLY TO SUPERINTENDENT.

Clover Bar Holsteins

We are offering at the present time, a few young bulls two of which are fit for service, from high testing dams, 103 lbs' milk per day. Prices reasonable.

PETER SMITH, R. R. No. 3, STRATFORD, ONT

Dark Honey Crop Report.

The Crop Report Committee of the Ontario Beekeepers' Association met on Friday, Sept. 8, to consider the crop of dark honey. It was found that 89 members had reported 91,325 lbs. from 5,091 colonies, being an average of 18 lbs. per colony. This is about the same as last year's average, but owing to high prices prevailing in all similar lines, the committee advises members to ask 8 1/2 to 9 cents per lb. wholesale, depending on the size of the package and the quantity sold in one order. No buckwheat honey should be retailed for less than 10 cents per lb.

In issuing this report a year ago, the statement was made that the local demand for white honey was exceedingly good. The situation this year is, if anything, better than a year ago, and the very large crop of white honey is moving out readily. Many of the members have sold out entirely at prices as good as, if not better, than those recommended by the committee. When it is remembered that nearly a year must go around before another crop is harvested, and weather conditions have not been the best for next year's clover, beekeepers need have no worry about selling their honey at good prices.

Of course, dealers have been able to secure a certain amount of cheap honey. It is always this way, and while the beekeepers who sold cheap are losers, it is good for the honey trade that dealers are able to make an extra good profit on some of the honey they handle. The secretary frequently has enquiries for names of beekeepers having honey for sale, and while responsibility is not assumed, he is willing to put dealer and member in communication if so requested by any member.

MORLEY PETTIT, Sec.-Treas.

Gossip.

Leamington Breeding Farm.

One of the most extensive breeders of pure-bred stock in Western Ontario is Cecil Stobbs of Leamington. Jersey cattle, Horned Dorset sheep, Duroc Jersey, Poland China and Berkshire swine, being the lines bred on this noted farm. This year Mr. Stobbs made his advent as an exhibitor at Toronto and with his Dorsets won first on the open flock and championship for the best ewe, besides numerous minor awards. In the swine department he also won his share proving that the Leamington flocks and herds are up to the standard required to win at the worlds greatest, annual show. Parties requiring breeding stock of any of the above mentioned breeds will be consulting their own interests by corresponding with Mr. Stobbs.

Chester Whites and Dorsets at Sunnyside.

Something particularly nice and exceptionally well-bred in Chester White Swine and Horned Dorset sheep is just now being offered by W. E. Wright & Son at their Sunnyside Farm at Glanworth, Ont. The Chester Whites have been bred from Toronto, London and Guelph winners and champions for many years, and naturally are up to the highest standard reached by the breed. Of these for sale are both sexes of any desired age. The Horned Dorsets have an equally enviable record as winners and champions at the above mentioned shows, and this year have again won many leading honors including first on Canadian-bred flock, and second on open flock. This year's lambs are by the Toronto and London champion of last year and out of winners, so that breeders wanting the best in Chester Whites and Dorsets will find something to suit in the Sunnyside herds and flocks.

A Big Demonstration.

The second Eastern Canada Tractor Demonstration will be held in connection with the Ontario Ploughmen's Association annual plowing match on the farm of R. J. Fleming, on the Kingston road, two miles West of Whitby, November 1, 2 and 3. This will give farmers an opportunity of seeing a large number of tractors in operation and all those who conveniently can should plan to attend. The Plowing Match itself is well worth while and at the present time when so many are interested in tractors a large crowd should be in attendance.

The 1917 Ford Touring Car

THE old, reliable Ford Chassis—Stream line effect—crown fenders—tapered hood—new radiator with increased cooling surface.

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GLADDEN HILL AYRSHIRES

Herd headed by Fairview Milkman. Some choice bull calves for sale, from dams with good records. and a few females. Agincourt, Ontario



Glenhurst Ayrshires For 50 years I have been breeding the great Flos tribe of Ayrshires, dozens of them have been 60-lb. cows; I have lots of them get 60 lbs. a day on twice a day milking. Young bulls, 1 to 10 months of age, females all ages. If this kind of production appeals to you, write me. James Benning, Williamstown, Ont.

YOUNG Brampton Jerseys BULLS

For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records save one. Females all ages, also for sale. B. H. BULL & SON, Brampton, Ont.

Canada's Most Beautiful Jersey Herd Present Offering—Some high-class bull calves ready for service, including grand champion bull at last Western Fair and his full brother; also cows and heifers. State distinctly what is wanted if writing. Jno. Pringle, Prop. We work our show cows and show our work cows

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Largest and oldest importers and breeders of

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PETER ARKELL & SONS, Proprietors, Teeswater, Ont. Customers, beware of imitations of this advertisement.

Oxford and Hampshire Down Sheep

Farnham Farm The oldest established flock in America

Having quit the show ring we hold nothing back. Our present offering is a number of superior yearling and two-shear rams for flock headers, a carload of yearling range rams, a hundred first-class yearling ewes; also a fine lot of ram and ewe lambs of 1916.

ALL REGISTERED HENRY ARKELL & SON, ROUTE 2, GUELPH, ONTARIO

Maple Shade Shropshires A number of splendid ram lambs, fit for service this fall. Sired by one of the best imported rams that we ever owned, and from imported dams. Prices and description on application. W. A. DRYDEN, Maple Shade Farm, Brooklin, Ont. Brooklin, G.T.R., C.N.R., Myrtle, C.P.R.

BLAIRGOWRIE SHROPSHIRE AND SHORTHORNS

PRESENT OFFERING: 100 Imported Shearling Ewes, 75 Canadian-bred Shearling Rams, 25 Imported Shearling Rams, 20 Cows and Heifers in Calf, 75 Canadian-bred Shearling Ewes, 5 Bulls of serviceable age. JOHN MILLER, Ashburn, Ont. Myrtle, Sta., C.P.R. & G.T.R.

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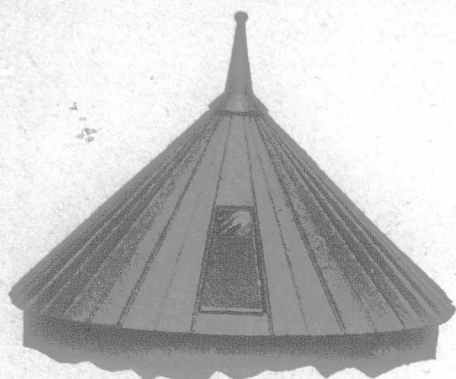
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Glencairn Ayrshires Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton Ont., Copetown, Sta., G.T.R.

JERSEY BULLS, For sale—Knoolwood's Raleigh sire Fairy Glen's Raleigh (imp.), 22 daughters R.O.P.; dam Eminent Honeymoon (imp.) R.O.P. 500 lbs. butter; reserve champion on Island. Capt. Raleigh ready for service, sire Knoolwood's Raleigh, dam Mabel's Post Snowdrop; first as calf, 1914, first Junior Champion, 1915, 2nd 1916 Toronto. Milked 38 lbs. day, 6 per cent. milk, first calf. Ira Nichols, Burgessville, Ont. R.R. No. 2.

Tower Farm Oxfords Champion Oxford flock of Canada. Choice Oxfords of all ages for sale. Prices reasonable. E. Barbour & Sons R.R. 2, Hillsburg, Ont.



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For Sale, Several

YOUNG SOWS

Pedigree Tamworths

Herolds Farms, Beamsville, Ont.

Alderley Edge Yorkshires

Young pigs both sexes for sale.

J. R. KENNEDY, Knowlton, Que.

ELMFIELD YORKSHIRES

Choice ones—ranging from 2½ to 5 months. Will be ready for full service. Prices right.
G. B. Muma, R.R. 3, Ayr, Ont., Paris, G.T.R., Ayr, C.P.R., Telephone, 55 R.2, Ayr, Rural.

DUROC JERSEY SWINE

A few choice sows bred, both sexes, all ages, bred from imported stock. Heading herd: Farough's King—2012—, Brookwater, B.A.B.'s King 5042 from U.S. Importer and breeder. **CHARLES FAROUGH, Maldstone, R. R. No. 1, Ont.**

Morrison Tamworths and Shorthorns Bred from the prizewinning herds of England. Tamworths, both sexes, 140 to choose from. Shorthorns, 5 bulls from 5 to 10 months old, reds and roans, dandies. Females of the best milking strain. **Chas. Currie, Morrison, Ont.**

Sunnyside Chester Whites and Dorsets. In Chester Whites we have both sexes, any age, bred from our champions of many years. In Dorsets we have ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London, and Guelph winners. **W. E. Wright & Son, Glanworth, Ont.**

Pine Grove Yorkshires. Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction. **Joseph Featherston & Son, Streetsville, Ont.**

Swine for Sale—Am offering choice stock in Poland-China and Chester White swine of either sex; most any age. First-prize Poland-China herd London and Toronto, 1915. Prices easy. **GEO. G. GOULD K.R. 4, Essex, Ont.**

Townline Tamworths We can supply Young Tamworths of both sexes and any desired age of superior quality. Also Leicester ram and ewe lambs, Pekin ducks, Langshan cockerels and pullets. Write us your wants. **T. Readman & Son, Streetsville, Ont. R.M.D.**

Duroc Jerseys For 13 years our breeding stock has been choice selections from the champion herds of the U.S. We have both sexes, all ages, over 100 to select from. Bred from champions. **L. A. Pardo & Sons, R. R. 1, Charing Cross, Ont.**

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TAMWORTHS Young sows bred for September farrow, and some nice young boars. Write **JOHN W. TODD, R. R. No. 1, Corinth, Ont.**

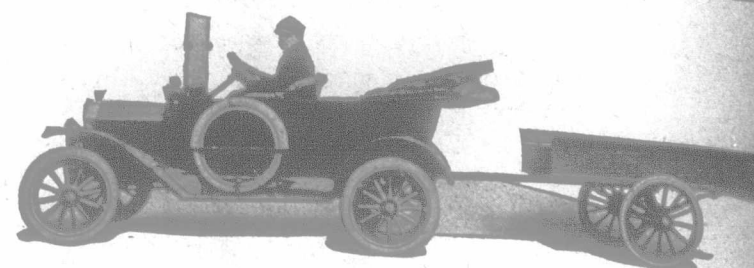
Estimate of Canada's Crops

In a bulletin issued the middle of September, the Census and Statistics Office publishes the first preliminary estimate of the yield of the principal grain crops of Canada in 1916 (wheat, rye, barley, oats and flaxseed.) as well as a report on the condition of all field crops at the end of August.

Correspondents report that grain crops in Manitoba and Saskatchewan, which were highly promising at the end of July were so seriously affected by rust and hot winds during August, that large areas sown will either fail to produce any crop at all, or have been cut green, whilst the yield of grain from producing areas will be very low both in quality and grade. Whilst the whole of Manitoba and Saskatchewan is badly affected by rust, the conditions are distinctly worse in the southern than they are in the northern parts of these provinces. In Alberta, rust though present to a certain extent, has not proved destructive, and the grain crops continued promising. Frosts, however, of August 11 and again late in the month did considerable damage. In Ontario and Quebec grain yields have been greatly reduced by drought in August; but in the Maritime provinces and in British Columbia the condition of the grain crops continued to be quite favorable.

It is estimated from the reports of correspondents that of the areas sown about 13.7 per cent. of spring wheat, 8 per cent. of oats, 5 per cent. of barley, and 1.8 per cent. of flax will fail to produce any crop of grain. Of the areas sown, however, 3 per cent. of wheat, 5 per cent. of oats and a small area of barley were cut for green feed or turned into hay. These percentages represent deductions from the areas sown of 1,432,300 acres of spring wheat, 849,000 acres of oats and 69,100 acres of barley. It is consequently estimated that the total yield of wheat this year will be 168,811,000 bushels from a harvested area of 10,085,300 acres, as compared with 376,303,600 bushels from 12,986,400 acres last year, and 161,280,000 bushels from 10,293,900 acres in 1914. The average yield per acre is 16¾ bushels as compared with 29 bushels last year and 15.67 bushels in 1914. The estimate for oats is a total yield of 341,602,000 bushels from 9,795,000 acres, as against 520,103,000 bushels from 11,365,000 acres in 1915, and 313,078,000 bushels from 10,061,500 acres in 1914, the average per acre being 34.88 bushels in 1916, 45.76 bushels in 1915 and 31.12 bushels in 1914. For rye, the estimate is 1,990,800 bushels from 101,420 acres, as compared with 2,394,100 bushels from 112,300 acres in 1915 and 2,016,800 bushels from 111,280 acres in 1914, the yields per acre being 19.63 bushels in 1916, 21.32 bushels in 1915 and 18.12 bushels in 1914. Barley yields 34,408,000 bushels from 1,326,800 acres, as against 53,331,300 bushels from 1,509,350 acres in 1915 and 36,201,000 bushels from 1,495,600 acres in 1914, the yield per acre being 25.89, 35.33 and 24.21 bushels respectively. The flaxseed estimate is for 8,625,300 bushels from 710,000 acres, an average of 12.15 bushels per acre. For the three Northwest provinces the total estimated yields are, for wheat 145,466,000 bushels, for oats 243,114,000 bushels, for barley 24,502,000 bushels, for rye 601,000 bushels and for flax 8,572,000 bushels. The average yields per acre of wheat are: In Manitoba 10½, Saskatchewan 16, and Alberta 24¼ bushels per acre.

At the end of August, the condition of field crops, expressed in percentage of a standard representing a full crop, was as follows: Spring wheat 69, oats 74, barley 73, rye 80, peas 68, corn for husking 67, potatoes 72, alfalfa 94, corn for fodder 77, pasture 86, hay and clover 103. All other crops ranged between 75 and 78. In Manitoba the condition of spring wheat was marked down to 37 per cent. as against 85 per cent. and in Saskatchewan to 61 per cent. as against 94 per cent. at the end of July. The percentage of 37 for Manitoba on August 31 is the lowest on record since the present crop reporting system began in 1908.



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Newcastle Herd of Tamworths and Shorthorns—Stock boar and 2 aged sows for sale fit for any show ring; also boars ready for service, and a number of sows bred for Sept. farrow; others ready to breed, both sexes ready to wean; all descendants of imported and championship stock. A few choice bull calves, from 2 weeks up to a year old, from Broadlands, my present stock bull. Show stock a specialty. Prices reasonable. Long-distance 'phone. **A.A. COLWILL, R.M.D. No. 1, Newcastle, Ont.**

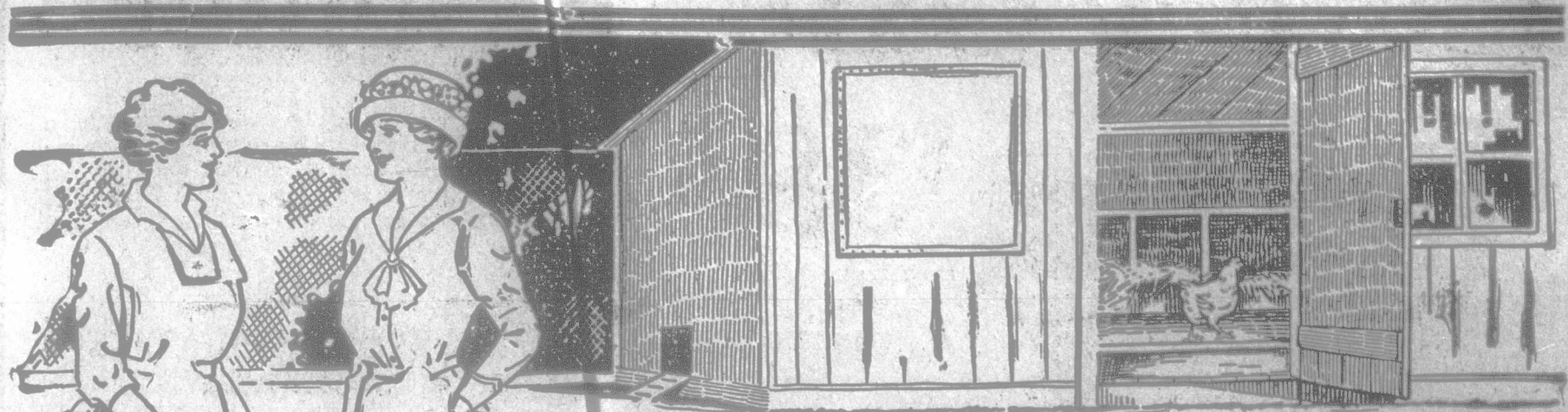
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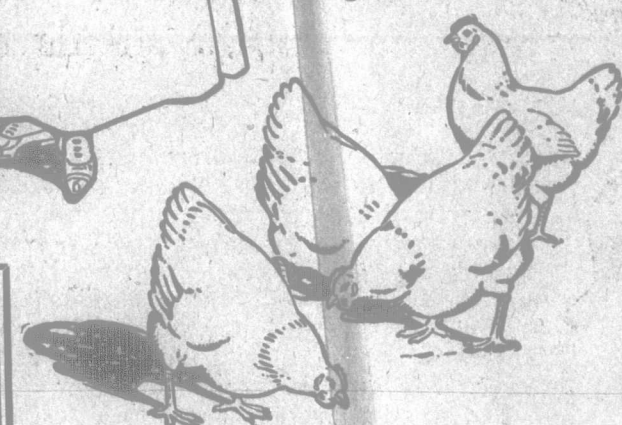
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