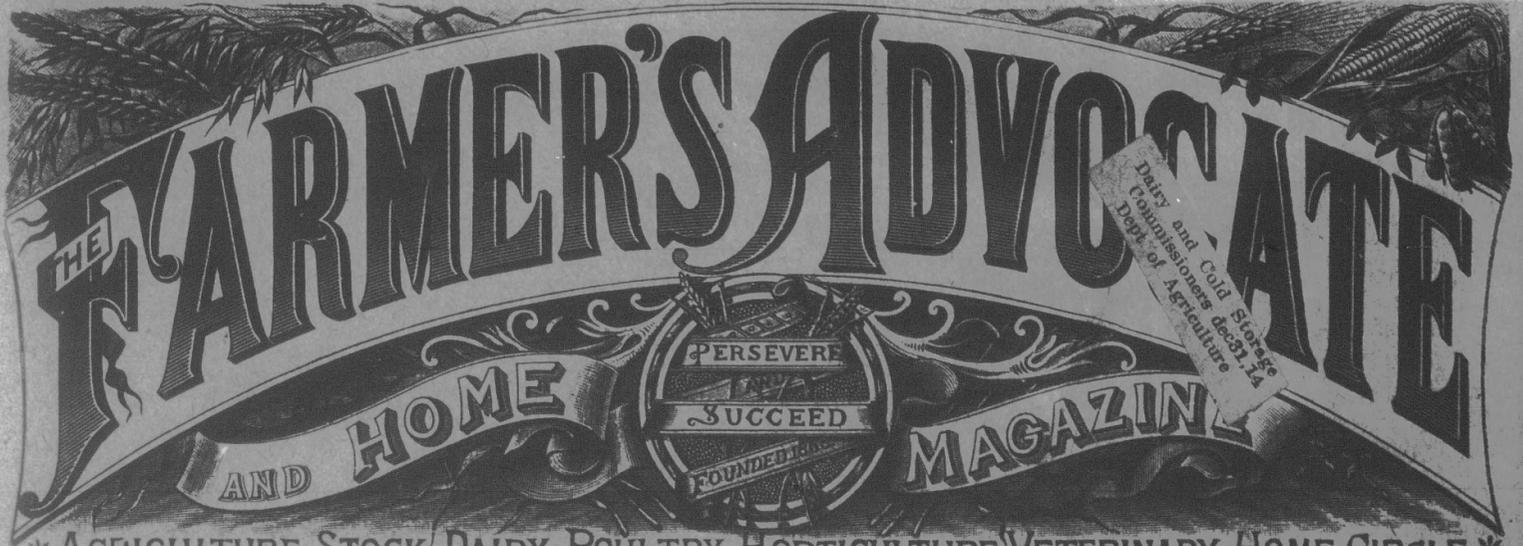


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VOL. L.

LONDON, ONTARIO, JANUARY 7, 1915.

No. 1163

## News to Most Women

Oven-tested flour is for sale. Instead of buying ordinary flour you can buy flour whose baking ability has been proven in an oven:

# PURITY

A ten-pound sample is taken from each shipment of wheat at the mill. This is ground into flour. The flour is baked into bread.

If this flour bakes into bread high in quality and large in quantity, we keep the whole shipment of wheat and grind it. Otherwise we sell it.

More bread and better bread from this is a certainty!

# FLOUR

528

“More Bread and Better Bread”  
and “Better Pastry Too”







FOUNDED 1866

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OU BEST



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Steel Bridge

Engineer strengthens  
in a big, mighty  
designed braces,  
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College

ONT.  
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Toronto

January 4th, 1915

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foremost Business  
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G. D. FLEMING  
Secretary

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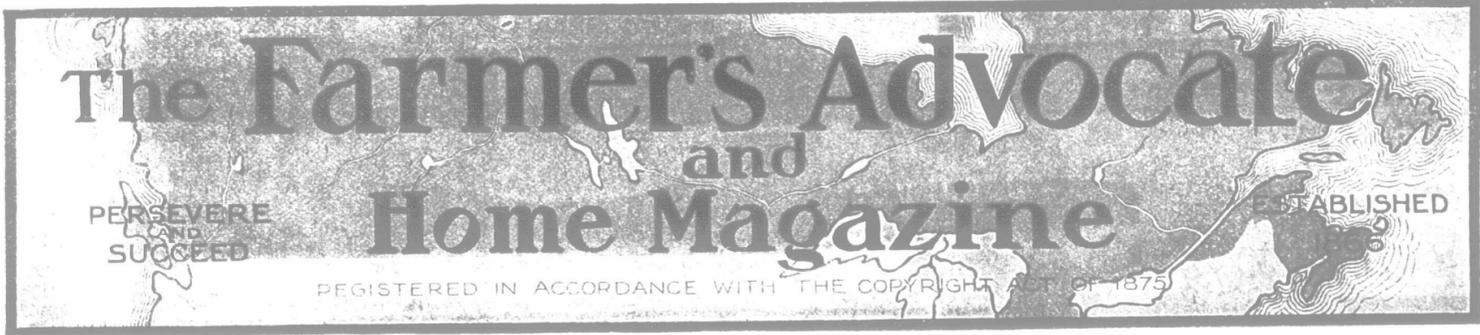
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VOL. L.

LONDON, ONTARIO, JANUARY 7, 1915.

No. 1163

### EDITORIAL.

Have you broken your New Year's resolutions yet?

Feed carefully, for it is yet a long way to spring pasture.

The man with the wood-lot has no fear of coal furnaces in cold weather.

Exercise and laxative feed are the keynotes to success in winter feeding of breeding stock.

The man who buys the "old truck" at the auction sales is not generally the best farmer.

The heavy winter milker, like the regular winter layer, is the kind that pays well for her keep.

We hope that those who prophesy that this is to be the last war, foresee the future as it will be.

The man who farms for dollars and dollars alone is not getting all that his occupation affords.

The winter evenings are not too long for the reader of good literature which will aid him in his work.

No one could complain that as far as cold weather and snow were concerned, it was not an old-fashioned Christmas.

A successful pig feeder recently remarked, "The pig that isn't making rapid gains is a bill of expense," and we believe him.

It is said that war indemnities only embitter, and yet to the victor should belong enough of the spoils to guarantee a lasting peace.

The man who misrepresents goods which he has for sale injures the trade in the particular one he handles. There is nothing which damages business like dishonest dealing.

It is not too early to be making plans for this year's tillage operations. The harrow that is sharpened in the winter is the harrow that is ready to take the field in the spring.

A comfortable stable well filled with live stock is a source of satisfaction to the farmer. There is no sweeter music to a feeder's ear than that of farm animals munching a liberal feed.

While there is sleighing draw up the summer wood, and do not stop with the drawing, cut it ready for the stove. There is more time for such work now than there will be next April.

The most successful feeder is not always the one who feeds earliest in the morning and latest at night, but the one whose feeding times are regular with a fairly evenly divided interval between.

The defeated candidate for municipal honors has the satisfaction of knowing that he at least will have more time to farm than his opponent who has been honored with the municipality's business.

### Do Not Plunge.

The plunger generally loses heavily in the end. True, the man who never takes a chance seldom becomes wealthy, but it is equally true that the steady, thoughtful man, who weighs each important move carefully before making it, never goes bankrupt and generally keeps considerably ahead of the game, be it farming or other business. Just now there is a great tendency for the farmer to neglect live-stock operations and plunge into grain growing, particularly wheat. Wheat and coarser grains are high in price and the war may force them even higher, but conditions do not warrant the growing of wheat to the total exclusion of live stock and other branches of farming, for nothing is surer than that wheat must come down when conditions become normal again, and the drop will be sudden and disastrous to the man who depends on wheat alone. Besides, all are agreed that to keep land in a high state of fertility and in that tilth which ensures big yields, it is necessary to practice mixed farming and rotation of crops. "Some stock on every farm" should be our ideal. A prominent man in Western Canada affairs says this of his country. It is even more true of the Eastern and Central Provinces. It might be safely changed to "more stock on every farm." Men are farming not for one year, not for five or ten years but for a lifetime, and they, if they are good farmers, desire to leave the land to their children in better tilth and more fertile than when they started on it. If so, do not plunge. We once knew a man who plunged every year. One year it would be all wheat, another year all clover or alfalfa, another year all sugar beets and so on, and the unlucky experimenter always happened to hit a year of crop failure in his particular line, or a year of extremely low prices which scarcely afforded him a living. His chances were costly, and while his neighbors enjoyed the prosperity which came of steady progress in mixed farming with several branches to fall back upon, he stood still or went backward. It is a good time to distribute effort over a wide field in agricultural endeavor.

### Improving Community Spirit.

It is generally believed that social conditions in the country are responsible for the great trek cityward, and yet social conditions are better than they were twenty or even ten years ago. Better? Yes. Nearly every progressive district has its rural telephone system; rural free mail delivery is rapidly covering the country; mail-order departments in big stores bring the city establishment to the farm gate; implements and machinery have been so improved as to do away with almost all bees and such gatherings, and even the hired man has lost his job on many places, thanks to cheaper and more efficient labor in the shape of improved machinery and farm power. And after all do these changes improve the social conditions? The occupants of the farm home now have very little occasion to leave the farm, and with the necessity removed they often stick too tight to the old place for their own good. The little visiting done is accomplished by use of the telephone; goods are ordered over it and by mail, and the winters are spent doing chores and household duties and chatting around the home fireside. There was much more call to the village and to the neighbors a few years ago

than to-day. A great deal more visiting was done, the real old-fashioned variety of visiting where the whole family finished up the chores early in the morning and went in the big sleigh to John Jones' place where they stayed all day, and after the children had played hide-and-seek in the barn, and had jumped from the highest beam to the pile of straw below, and had enjoyed a great measure of old-time fun while their mothers talked over recipes for plain cookery and patterns for aprons and dresses, and the fathers discussed feeding problems and the best methods to get results in farming from practical experience, the whole party returned to the chores at night light hearted and planning to give the Jones family a great time at their return visit a fortnight hence. Evening calls were far more frequent in those days, too. Neighbor always planned to spend an evening or two a week with another neighbor, and invariably in the course of conversation some of the problems which they were meeting in their every-day affairs came up for discussion, and we may say profitable discussion, for good always comes out of fair, logical reasoning backed up by practical experience.

Visiting grows less and less, and the young people especially, regret the change and many, far too many, seek other pleasure in far off fields. The city wins out, and while there is no more lonely setting than to be alone among thousands in a great city, the bustle and glare of it all is fascinating, and the pull of the long lines of brilliant lights and the gay music and rapid action is yielded to, and the grip which the country once had on the young heart slackens and slackens until the gay young convert to city ways exclaims, "I'd simply die if I had to live in the country." No, she wouldn't die, but she would find it quiet and perhaps lonely, much of which is the fault of the people living in the country. Their fault? No, not exactly, for they have little time now for visiting. They too have been caught in the swirling rush of the money-chasing times and find little respite from labor, and yet there is time in winter surely for a little more friendly visiting, more informal evening calls, more bees, and more discussions of farm problems between man and man. Stop doing all the visiting over the telephone. Do some business by a personal call rather than by mail or 'phone. Drive over and see how Jones' cattle are doing this winter, and find out how he is feeding them and how much they are gaining daily. At the same time give him your experience. Look at his pigs and see whether he has a more economical ration than you have or a better breed to begin with. Discuss the matter. Look over the sheep, the horses, the seed grain, the various contrivances for saving labor, and discuss the outlook for different branches of farming. What could be more interesting, and what could be more profitable? The women will be busy at household topics, and the boys and girls, which should be taken along if the day is not a school day, will have a heap of fun. It is simply a practical demonstration in farming, in keeping house and in playing, and there is nothing more profitable than demonstration. Start now to improve the spirit and the social conditions of the community by visiting, not to gossip, but to have a real good, profitable time together. The interest would soon grow until the community would be noted for its good fellowship and progress, and, better yet, the desire to have the old farm would not be so strong.

## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

Published weekly by  
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"  
Winnipeg, Man.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
  2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s. in advance.
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THE WILLIAM WELD COMPANY (Limited),  
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### Marketing is the Big Problem.

In recent issues of "The Farmer's Advocate" there have appeared several articles discussing the Rural Problem in this country, and nearly all, if not all, have simmered the question down to one of finance. We hope our readers have followed these articles closely, and if any have new ideas on the subject which they have not seen expressed in these letters other readers would welcome a continued discussion of the question. There is no doubt that there is a big problem before the country, and the music must be faced. The weak point of the farming business is most assuredly the selling end. It is here that the producer is most in need of help. The chances of getting a fair price for his products is a result of his efforts. At present the cry on the part of those engaged in producing farm crops is that the prices are low. There may be a great deal of truth in this, and we should like to see the farmer get a fair price, not only in acreage but in the products that Canada has ever seen, but would it be well to put forth a little more energy to improve selling and marketing conditions than to spend all the effort on preaching a greater production. The far-seeing farmer does not look for phenomenally high prices after the war has ceased, and is slower to change his plan of campaign. The raid of the battle cruisers of the army bent on increasing production has little effect on his production policy. His rotation of crops is settled; his livestock plans have been laid at much expense and after considerable thought; he is working out the most important remaining link in his great battle front, efficient selling, and it is to it that he looks for his greatest success. Governments can and do help a great deal, but we recently overheard a remark from a farmer which had a peculiar ring to it. Here it is, "I often wonder if the money expended on special meetings intended to aid in increasing production really in-

creases production enough to pay the salaries and expenses of the speakers at these poorly attended meetings." Whether it is the speakers or the farmers themselves that are responsible for the small attendance at some meetings we are not prepared to say, probably both are a little to blame, but it is plain to the farmer that he gains nothing in the end by being fed on "pap," and he is deciding that his best and greatest help comes through his own efforts aided, of course, by judicious governmental agricultural expenditure and a progressive agricultural policy which carries agricultural education and training to the farm. The District Representative work in Ontario is surely one of the best proofs of this contention. The capable, competent, practical man located in a county where he makes a special study of the situation in each district, knows the soil, the climatic conditions, and, best of all, the farmers themselves can do more good in one year than outside speakers, be they ever so capable, can hope to accomplish in a decade. Farmers invariably place their confidence in a man they know personally rather than in a stranger, of whom they are, often without reason, suspicious. The localizing of the work strengthens it through confidence, and through the intimate knowledge which the worker gets of the needs of the district. Even more work could profitably be done on the part of the agricultural department in this direction. If the farmer can get the information he wants delivered at his farm he will not go even to the nearest village after it. This is proven by the popularity of the farm press.

But we have digressed from the original subject. Producers must do more to help themselves to better selling conditions. They have co-operated to some extent, but not nearly enough. They must get together and lay plans to control the rush of certain products to certain markets at certain seasons, a practice which invariably lowers prices, and often below the point of profitable production. They must study markets and marketing, and be prepared to take advantage of all favorable market conditions and avoid pitfalls. We hope that the campaign for greater production will be a big success, and we also hope that the real problem of marketing the increased production may not be overlooked by the campaigners. War conditions are only temporary; great changes in farm practice are costly; if we increase one product we are likely, with present available labor, to decrease the output of other staples. It is a big problem, and we would advise all readers to attend all the agricultural meetings they can this winter, and if the marketing end of the subject is not brought out in the addresses bring it up in discussion, and let some conclusion be arrived at or at least get the ideas of others to help work out local organization. The greatest measure of help always goes to the men who put forth greatest effort to help themselves. Besides all this, if production is to be increased more labor must be available. Few indeed are the present-day farmers who are making their business go ahead who are not overworked.

Every energetic farmer is anxious to know more about his business, and all have had some valuable experience which would help others if they only knew about it. Let them benefit by describing practices which you have found profitable in the columns of "The Farmer's Advocate."

The man who is found most frequently on the nail keg nearest the little stove in the village grocery does not generally have the fattest cattle in the stable at home. The good farmer has little more time for village gossip in winter than he has in summer, and the nail-keg seat is about the dearest seat he can buy.

The case of the man in need is greatly injured by the impostor who says, "There is no need for me to go to the country to look for work, the city Relief Officer will give me a meal every time I am hungry." Such men would be of little use on a farm, and it is such that make it more difficult for the worthy to get employment in the country.

### Nature's Diary.

A. B. Klugh, M.A.

For the naturalist and the lover of scenery the mountains have a strong fascination. The scenery of the sea shore, of placid rivers and little lakes, of open woodlands, is beautiful, but true grandeur exists only in mountain scenery. Lowland scenery may please, may delight, but mountain scenery inspires. To look from the valley at the snow-clad peaks towering thousands of feet above, to stand on the verge of chasms whose depth appears almost infinite, to climb to heights and look off a shelf on the world, or to ascend to the summit of a high mountain and command a view in which the country appears spread out like a map—the large lakes appearing as little ponds, the rivers as thin lines, and to see other peaks ranged about in all directions, makes the soul sing. The streams in the mountains rush along with white and swirling water and a suggestion of reserve force: often they drop over a precipice and fall in a "bridal veil" a thousand, several thousand, feet. The avalanches come down with a roar as of heavy artillery, a roar which echoes and re-echoes among the peaks, and their resulting cloud of fine snow rises like smoke.

We in Canada are fortunate in possessing some of the finest mountain scenery in the world. In various parts of the world, in the Alps, in the Himalayas, in Alaska there are higher mountains, but the consensus of opinion of those who have visited all these places with whom I have conversed is that in their beauty and grandeur, in their combination of well-wooded slopes, rugged peaks and snow-capped summits, the Canadian Rockies are unexcelled.

And not only in the Rockies have we splendid mountains, we have the Selkirk with a quite different type of scenery and flora, and the Coast Mountains with characteristics all their own. While the Coast Mountains do not reach the same absolute altitude as the Rockies their relative altitude is just as great, for instead of the peaks rising from a general level of four to five thousand feet to ten and eleven thousand, they rise from sea-level to heights of from four to nine thousand feet. The timber-line and the snow-line are also lower on the Coast, the former being about 7,500 feet in the Rockies and 6,000 feet in the Coast Mountains. In some places, for instance along Howe Sound, the Coast Mountains rise straight from the sea to heights of from four to five thousand feet.

To the naturalist the main attraction of the mountains lies in the fact that not only are their fauna and flora entirely different from those forms of animal and plant life found at lower altitudes, but there is the added charm of observing the changes which take place as one reaches different elevations. To observe anything like corresponding changes in a flat country one would be obliged to travel about a thousand miles north. In fact in naming groups of animals and plants characteristic of different zones those of high mountains and the Arctic regions are placed together in the Arctic-Alpine group. It is interesting to see how mountain forms of life came to be the same as those of the Arctic. When the great ice-sheet came down from the north it drove before it all forms of life. Its advance was very slow, so that the climate changed very gradually, and eventually far northern forms grew where once semi-tropical ones had flourished. As the ice-sheet retreated the northern forms followed it up, when mountains were approached some of the forms ascended the mountains higher and higher as the climate became milder, while in level country they followed the ice-sheet to the Arctic. In the case of low mountains the far northern forms were not able to endure the climate, even at the summit, and perished, but in the case of high mountains they found a suitable habitat towards the top, and there they are to-day.

In ascending even the lower Coast Mountains the changes which take place at different elevations are very noticeable. In climbing Mt. Benson, in Vancouver Range on Vancouver Island, I found that the flora for the first 2,600 feet was practically that of the coastal plain, consisting mainly of Douglas Fir, Giant Cedar, Western Hemlock, Salal, Small-fruited Rose, Sweetleaf, Pacific Sword Fern and other species usually associated with these. But above this there was a very marked change, the Mountain Pine, Mountain Cedar, Mountain Hemlock, replaced the trees seen at lower altitudes, the Dwarf Juniper, Small-leaved Salal, and two species of Mountain Blueberries appeared. At the summit at about 3,500 feet, the flora was strongly alpine, the trees all being Scrub Pine, Mountain Cedar, Mountain Hemlock and White-bark Pine, and the lower plants being practically all mat-plants adapted to withstanding exposure to wind and dryness.

The view from the summit of Mt. Benson is immense. To the north one looks up the straits of Georgia away beyond Texada Island, to the East you see across the Straits (here forty miles wide) and over three ranges of mountains on the

mainland, to the south are the chains of large islands between Nanaimo and Victoria, (Gabriola, Galiano, Valdes and Salt Spring,) and the innumerable smaller ones, and in the distance the straits of Juan de Fuca, while to the West one looks over other mountains of the Vancouver Range. Thus Benson commands a view some two hundred miles long by a hundred miles wide, in an extremely picturesque country.

## THE HORSE.

### Wonderful War Horses.

It is wonderful how the horse will adapt itself to circumstances and work with almost human intelligence. Our English correspondent has sent us an interesting clipping which we reproduce in these columns.

If war has no other virtue, it cements the friendship of men and horses.

There are many English gunners—and if gunners, much more cavalymen—whose greatest ambition is to bring a favorite horse or two safe through the war and home again, and they expect to succeed. In spite of the terrible waste of horses by sudden death and by disease, a notable number are as fit now as when they started on the campaign.

They came down from Mons in the retreat, unsaddled or unharnessed for innumerable hours, and capriciously fed; but they played a lively part in the advance to the Aisne, accompanied the British army in its rapid movement to Belgium, and are now in perfect condition and cleverer than any horse is supposed to be. They exhibit an intelligent vigor which is the daily admiration of their masters.

These old horses are as valuable as experienced soldiers. They have nothing to learn about war, and can teach any new driver a good deal.

For example, many of these animals know with mathematical exactness the proper interval of one gun from another. To swing the gun round at the due distance is now ingrained as an instinct and performed with the regularity of a ploughing horse when he turns at the headland of the field. If the driver, less skillful or wise in the art, attempts to bring one gun too near its neighbor, the horse takes the matter into his own hands with an Olympian disregard for bit or whip. They will not disobey the gunner, who has learnt and suffered and won with his horses, that they will one day walk with their quiet confidence into the seagoing horsebox and recross the Channel to the end of a peaceful life in British barracks. They would certainly never wish to retire from the army.

After a certain length and closeness of association between men and horses the distinction of genus tends to disappear. The experiences are too similar in many ways. The fodder comes up along with the food. It is as carefully selected and its distribution is as precisely arranged. When the men have leisure to shave the horses also are better groomed; and when the men have time to polish belt or buttons the harness becomes resplendent. It is said of some cavalry horses—and no doubt the artillery horse knows as much—that they welcome days of advance as surely as an old hunter sniffs the coming of a hunting morning.

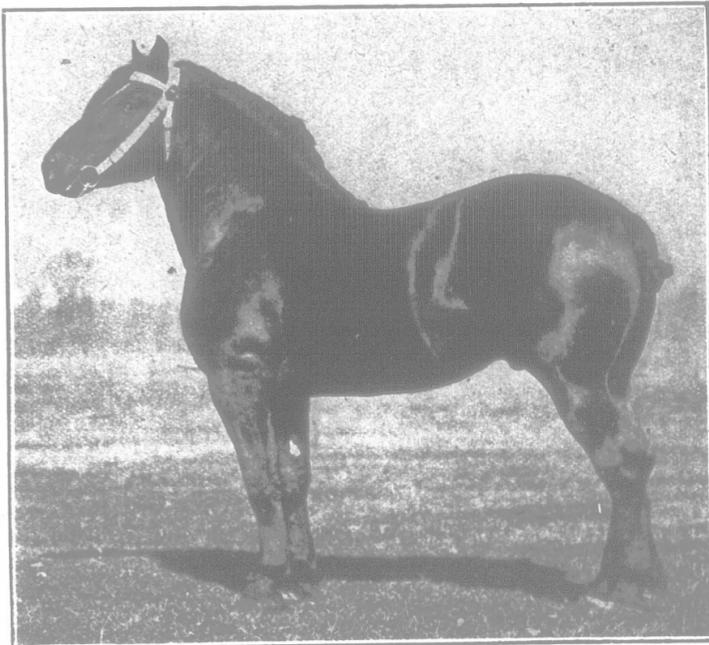
The whole organization of the daily life of the horses is singularly human. The system of base and clearing hospitals is at least as well and carefully done by the Veterinary Corps as by the work of the R. A. M. C. and the Red Cross, and the surgery has been wonderful. The old idea that a wounded horse is as good as a dead horse is now quite finally exploded. They recover both health and—may one say?—normal very readily. Some of the old stagers are almost as capable of telling the "vets." where to probe as of instructing young gunners in the geometries of gun emplacement. Of course most breakages are beyond remedy, but the cures among horses operated upon almost on the field of battle are amazing. However, the greatest admirer of the horse must confess to one failing which is not cured by experience in battle. The horse does not stand pain well. A great proportion of both cavalry and artillery horses have learnt to endure shell fire scornfully and without wincing. The pick of those wise old horses are not more affected by the explosion of a "Jack Johnson" in their neighborhood than by the grateful thunder of their own guns which they know to be controlled by their own dear gunners.

But the horse, especially the better-bred animal, is after all more highly strung than any domestic and most wild animals. There are things he cannot endure with patience. When he is struck by bullet or shrapnel or shell the unseen injury usually fills him with a nameless terror, and his restraint is apt to vanish into sheer panic. Of course, horse differs from horse as man from man. Some are brave like the Turcos, if only they may move quickly. Others

have the courage of "cold blood," with which our Allies endow the British, and will scarcely cock an ear at a neighboring detonation which may be heard twenty miles off. But in bulk the horses that have lived through the terrors of the retreat and covered without failing the northern journey have learnt war only less intelligently than their masters. They are old campaigners, who increase in physical fitness with the march of hardships, and are not to be intimidated by common things.

On the whole the horses enjoy a better time than their masters. Some quite charming winter quarters have been built for them, and are being built, in the neighborhood of the British lines where they approach the Flemish and French boundaries. The people of the country are very good and generous on their behalf in supplying any gaps there may be in the commissariat; and in a comparatively static part of the campaign the work has not been heavy.

In the science of war as of peace every effort has been made to supplant the horse by mechanical power. The Germans have gone a long way in the endeavor. They can now trundle their guns behind tractors and even upon tractors through lanes and roads that much resemble fields. But ploughland defies them, and still the horses are needed at the end of the journey to swing the guns into place over the tith or among the trees, or into the queer corners where guns must now be put to avoid detection. The rejoicing of a British gunner—a real lover of his animals—at this victory of the horse over the motor in this department reminded me of the boast of a certain old countryman who was called in with his scythe to mow round the corners and tree trunks which defied the machines. "They can't do without me yet," he used to say.



Lenoir.

Champion Percheron stallion at the Guelph Winter Fair, 1914. Exhibited by Hodgkinson & Tisdale, Beaverton, Ont.

Unhappily one may not altogether rejoice with him. The horses are brave and clever and faithful, wonderfully docile in the art of war, admirable friends as always. But in spite of all that can be done for them they suffer immeasurably. They suffer only less than men suffer in this mad and cruel duel of destructive chemistry and mechanics against living flesh.

### Rations for Fattening Horses.

After the fall work is done and before the spring sales are consummated it is not a bad plan at all to add a couple of hundred pounds to the horse or horses intended for sale. The buyer is not wise to look very far for a thickly-fleshed horse unless he be well muscled on the limbs and other places which indicate that the fattening process has been going on while the animal was worked or exercised. However, the most highly-finished offerings are not hard for it is detrimental to successful fattening to allow the horse to move about to any appreciable extent. They should be kept quiet, comfortable and isolated from any influences of a disturbing nature. This is the feeder's business, and it remains with the ultimate purchaser of the animal to see that it is in shape to meet his requirements.

It is generally understood that it is safer to purchase any animal when in medium flesh rather than in a highly-fitted condition, for, under the

latter circumstances, defects will stand out more conspicuously. In spite of this generally appreciated axiom buyers will bid for flesh, and it has been demonstrated several times this season that it does not pay to offer unfitted animals at auction sales. Bidders will run up an animal which is slick and well-covered and allow a better animal with more desirable conformation, though poorly fleshed, to be knocked down at bargain prices. The sagacious seller will then prepare his offering to suit the buying public, and will not be prejudiced by what he knows the buyer should have.

Experiment stations in this country have not devoted as much time to investigation work with horses as with other lines of stock, yet some institutions have arrived at results, and practical men have invaded the experimental field much to their own advantage as well as to the profit of the people at large.

It is agreed that the horse should be kept very quiet, and in this connection single tie stalls have given better results than box stalls. As for the roughage clover hay is superior to timothy, especially when corn is an important part of the ration fed. Bran does not prove to be a desirable constant factor when fed in conjunction with clover, the combination being too laxative. A ration having a nutritive ratio made up of one part of protein to eight parts of carbohydrates and fats has proven most economical and profitable.

A few years ago the University of Illinois undertook some experimental work which included three groups of horses. The different groups received different rations made up as follows: Lot 1—corn, bran, oil meal, clover hay; lot 2—corn, oats, bran, oil meal, clover hay; lot 3—corn, oats, bran, oil meal, timothy hay. Results from this test prompted them to say, "From these results we must conclude that so far as gains are concerned a mixed grain ration of corn and oats is superior to a straight corn ration when fed in conjunction with clover hay; and clover hay is much more valuable than timothy hay when fed in conjunction with corn and oats."

In another experiment two groups of horses were put under test to ascertain the merits of exercise or quietness. Horses that were walked 2.8 miles daily for 84 days made an average daily gain of 2 pounds, while those not exercised gained 2.49 pounds per day. Heavy horses will often stock in the legs when not given exercise, but under such circumstances the run of a box stall and laxative foods will correct the trouble. At a time of high-priced feeding stuffs, such as we are experiencing at present, it is necessary to count the cost of all fodders. At time of writing, oats are quoted

at outside points at \$1.41 per cwt. At the same time corn is quoted at \$1.85 per cwt. wholesales. Oats are richer than corn in protein, while corn excels in carbohydrates to the extent of approximately 16 per cent. Along with clover hay it might be wise to purchase even a quantity of corn and substitute a portion of the oat allowance with that fattening food. One is not obliged to keep the percentage of protein so high with fattening animals as with dairy cattle, and it is much easier in consequence to compound a suitable ration. There is a "something" about oats, however, that is meant for horses, and no feeder should neglect its importance. Where corn is plentiful 12 parts of corn to four parts of oats along with clover hay is a suitable ration, but with timothy hay 1 part of oil meal should be added. Roots could be fed sparingly to good advantage.

On full feed horses weighing around 1,500 pounds will consume 18 to 20 pounds of grain and 12 to 14 pounds of hay per day. The custom is sometimes followed to give this in five feeds, but it is usually dispensed at three feeding periods. The hay is given in equal quantities night and morning. The animals receive water first thing in the morning. They are then given their grain, which is followed with hay. This is repeated at noon and in the evening, only at noon no hay is given.

Idleness without exercise is not conducive to strength and vigor, but where rounds are desired the method of quietness must be adopted.



and the greater part of the grain ration is given as a slop, and towards the end of the period of gestation a little oil meal or a small amount of flaxseed meal is introduced into the mixture of feeding stuffs. To offset the absence of green food in winter there is nothing better than roots. They may be sliced or pulped and mixed with grain or fed whole as a feed at noon. They are laxative in their effect and too liberal an allowance might bring about a too energetic action of the bowels. Consequently, even this cooling, and healthy article of swine diet should be dispensed with discretion. The craving of the hog should be met with a mixture of charcoal, wood ashes, lime, salt and iron sulphate constantly before them. The compound acts as a vermifuge, prevents disease and satisfies that craving too common in farrowing sows. The constant use of such a mixture with foods containing a liberal amount of protein will maintain a healthy, vigorous system, keep the sow in normal condition and insure greater success.

There is yet one practice in wintering brood sows that must be commended, and that is the habit of exercising regularly. At times it may be at the end of a whip but it is wise under any circumstances, and where the pens are small the barnyard should be brought into service and the sows exercised there. Walking one mile per day is not too severe a constitutional for a pregnant sow, and she should be forced to take a certain amount of exercise each day. With it all the keeper should handle the sow frequently and give her to understand that her attendant is her friend.

### Fresh Air and Exercise for Young Cattle.

Of late the practice of housing all the stock continuously in winter has grown on many farms until not even the calves are let out for fresh air and exercise. By housing continuously we mean keeping the cattle in the stable from fall to spring without allowing them outside even for an hour or so a day. This practice may or may not be advisable for dairy cows in milk. Different successful dairymen have different views on the subject.

However, it is our firm conviction that with the young cattle, calves and growing stock better success on the whole would be obtained from allowing these to have from an hour to a few hours' exercise in the open air in the farm-yard each day during winter, provided, of course, the day is not too bitter cold or too rough and stormy. Of course, were the stables properly ventilated and properly lighted and the youngsters allowed to run loose all the time in comfortable, well-bedded box stalls there would not be such a great need of out-door exercise, but a large percentage of farm stables in this country are very poorly ventilated, in fact, many of them have little provision for ventilation outside of doors and windows and nothing to carry off the foul air, and besides this the proportion of box stalls in most stables is altogether too small, so that calves and young stock on too many farms are compelled to stand, throughout the winter, tied by the neck in narrow stalls, often dark and stuffy. For these if their constitutions are being developed to the greatest possible extent it is absolutely necessary that they get outdoor exercise and fresh air. Their growth will be more rapid and their general health much better than where they are confined all the time in an ill-ventilated stable.

Cattle should not be allowed to become very badly chilled, but we believe that it will not do the growing animal any more harm to shiver occasionally than it will to pine in a narrow, dark stall for lack of exercise, sunlight and fresh air. Besides, cattle once accustomed to going out every day will stand considerable cold without feeling it. They like to get a play in the farm-yard and a rub around the straw stack and may be found standing at the south side of the building or the stack in the sunshine on sunny afternoons looking much more alive than those too closely confined.

We would advise letting the young cattle out for a short time each day in the barnyard. Constitution, is one of the main considerations in the breeding and feeding of cattle. The animal which lacks in this particular can never prove as profitable to its owner as the one which has been well developed by a judicious amount of out-door exercise and the fresh air which accompanies it.

### Has Saved Him Many Bills.

Editor "The Farmer's Advocate":  
An enclosing \$2.50 for my subscription to your valuable journal until December 31, 1915, and while writing you I wish to express my appreciation of your very helpful publication in its various departments. The Queries Column has saved me much in veterinary bills and a fund of useful information has been gained from the Editorials and the various articles by Peter McArthur, and "Whip" and also from your experiences at Weldwood.

Frontenac Co., Ont. JAS. L. F. SPROULE.

## THE FARM.

### Stick to Good Cultivation and Stock.

Among other things which the Hon. Duncan Marshall, Minister of Agriculture for Alberta, said in advice to farmers in the Christmas Number of "The Farmer's Advocate and Home Journal," of Winnipeg, Man., were the following applicable to Ontario and in fact to all Canada:

Probably the greatest danger to the farmer at present is that of being stampeded into a line of operation that looks like a good thing in the immediate future, but that in the end may not prove to be either the most profitable or the most desirable line of action. Farmers are being advised to make a special effort to grow grain to feed the war-stricken countries. It will be good business for every farmer to get every acre he can under crop next year, as the price for grain will not only likely hold good, but will in all probability go higher; but it is only good business to do this when you can get your crop in under good conditions. Don't let any farmer be persuaded next spring to sow to grain the field that he knows should be summerfallowed. It would be better to put the extra time and labor on the land he has in good cropping condition; rather give it a few extra strokes with the harrow, making the seedbed as perfect as possible, thus ensuring a better crop on clean, fresh land, than to spend time rushing into crop land that is dirty and worn, and that needs a summer's work to fit it for growing a reasonably good crop.

The farmer who will be the best off in the long run is the man who will not allow the present high prices to turn him from the best methods of soil cultivation he knows, and who will keep steadily on improving his system of

the cultivation of his land and the quality and number of his live stock; putting a little extra effort into his farm operations because of the great crisis through which we are passing, but at all times keeping his head and farming for future as well as present results.

### More on Financing Farming.

Editor "The Farmer's Advocate":

In my former letter I endeavored to show that the chief problem affecting farmers to-day was the problem of getting adequate returns from their investments in farm property, and I also endeavored to dismiss from the minds of my readers the idea that lack of credit facilities was the chief cause of the trouble. Having thus cleared the ground I propose to deal with what I consider to be the chief cause, and ask you to form your own conclusions after having heard all the evidence. The fact that the war in progress and that prices of farm produce will be temporarily increased, owing to the fear of a scarcity and the consequent desire to purchase supplies for future consumption, and, later on, to the shortage of producers in Europe, should not blind our eyes and lead us to the belief that this increase in prices can be anything but temporary, for when once the abnormal conditions now prevailing are removed, ordinary conditions will reassert themselves and things will be as they were before. Therefore, when you read of the back-to-the-land movement and so on, think of the future, and do not forget that as capital always takes the line of greatest profits when normal times return it also will tend to flow in its ordinary channels unless the farming community take advantage of their temporarily strengthened position to entrench themselves there firmly.

I will now attack the question directly by

stating that the conclusion I have come to, based on my own experience, is that the whole trouble lies in the system of distribution of farm products, and I want to make this clear by giving a few instances in support of my contention. I am myself greatly interested in the raising of poultry. On the ordinary farm the cost of feeding a given number of hens or chickens for any particular time is an unknown quantity. As a result many farmers are entirely unable to tell what their birds cost them to raise or to keep, and do not know in the least whether they are profitable or not. I, however, keeping accurate accounts, am able from my own experience to corroborate the conclusion of the Ontario Department of



Elita.

Champion cross-bred at the Smithfield Show, London, England, 1914. Sired by an Aberdeen-Angus, and out of an Aberdeen-Angus and Shorthorn-cross cow.

farming. He may be able to crop more now, as labor will be cheaper, and he should if he can, but he must not sacrifice efficiency in farm work simply to get a larger area seeded.

What I have said about cultivation of the soil is also true of live stock. One of the things I fear is that farmers may be tempted to sacrifice their live stock on account of the high prices of grain. Don't do this. Live stock is the foundation of all permanently successful farming to-day, just as surely as it has been in the past. Circumstances seem to have conspired at the present moment to depreciate live stock prices, but just as surely as the packers have pounded down the prices at the present, because of the disposition of the farmer to sell off hogs and cattle rather than feed high-priced grain, just so surely will they be compelled to pay good prices for hogs and cattle a short time hence. The world's supply of meat can not be produced as quickly as a supply of grain, and the man who stays with the live-stock business will win in the end.

This same condition holds good respecting horses. The draft horses of Belgium and France will be almost annihilated, and the farmer who is raising a few draft colts now will find a market that will be attractive and profitable before long. If the war lasts for any extended time, all the light and nondescript horses will be left in the trenches and the demand for good farm and work horses will be abnormal.

In conclusion, the business of the farmer at present is to keep on improving and increasing

Agriculture, and as they are better known I use them. The Department has found by experiment that to produce a cockerel weighing 4 lbs. alive requires from 13 to 14 lbs. of grain, and that the cost of hatching each chicken raised is from 5 to 7 cents. You can all figure out for yourselves how much this comes to in your own particular locality. The Department after giving these facts (Bulletin 217, Farm Poultry) goes on to say on page 33 that each cockerel will sell in the market for at least forty cents, as if the said forty cents constituted ample remuneration not only for the cost of hatching and raising but for the time and labor spent in the process and the use of the invested capital. Take a flock of 100 cockerels, calculate the maximum profit, and think for a moment if the game is worth the candle. I say the thing is ridiculous, and that the monetary return is far too low to admit of any decent standard of living on the part of the raiser.

How are we to improve this state of affairs? We obviously cannot lower the cost of production. The only way lies in the direction of increased sale prices. I notice a great many articles in different periodicals informing us we must produce early chickens to sell at a fancy price and winter eggs. With the majority of farmers this is hardly possible, as it demands special facilities and the investment of further amounts of capital, and moreover if every farmer was in a position to do these things the present state of affairs would again result. I do not say that methods of production cannot be improved,

nor would I for a moment try to belittle the effects that improved methods would bring. My point is that if all farmers produce on a uniform level of excellence, whether that level be high or low, the same conditions affecting distribution and sale of their products would result.

Poultry I have taken as an example because I am directly interested in poultry raising. The same principles apply however to any line of farming activity. Yet again I was reading the other day of an organization which operates in the Western Provinces, and is I understood a co-operative association for the selling of wheat on behalf of its members, the stockholders, who are in most cases the actual growers. I may be wrong in these conclusions, but that would not affect the principle of a similar organization on the lines mentioned. It was the report of the second year's operations of the company I was reading, and in it I saw often writing off a large amount out of profits for expenses of commencing business, the net profits for the year on the capital invested were at the rate of 20 per cent. Now I ask how many farmers are there who make in addition to adequate pay for the labor of themselves, their wives, their sons and their daughters, even 5 per cent. on the capital invested.

The conclusion is obvious. Union is strength. Farmers must co-operate. In the West they are more progressive than we are down here and apparently more alive to their own interests, for I also noticed an item relating that several more co-operative societies had been organized in both Alberta and Saskatchewan. In my own district the very reverse is true. How many times do we grumble at some old backlotter coming to town and spoiling our market by selling his goods at far less than current prices? I could name case after case of this sort of thing round my own district. I hope it is not done elsewhere, but I have my suspicions. Take poultry again. In my own case I was able to act as my own co-operative association by disposing of my product in the city at remunerative prices while everyone else was flooding my home market with chickens at a quarter apiece.

I am not attacking middlemen personally. As things are middlemen are a necessity, and it is not to be expected that middlemen or men of any sort should abstain from taking profits wherever they find them. The trouble I think lies with the farmers themselves, who, through lack of organization allow themselves to be placed in a position of inequality, in short to be preyed upon. It is of no use for us to call upon the Government. The Government helps those that help themselves. We have not sufficient political representation, true, of which more anon, but as a stream cannot use higher than its source, so we who in this fine country form our own government are ourselves responsible for our own ills. As things are a governing body can only provide another link in the already far too lengthy chain between producer and consumer. Egg circles are a case in point. One District Representative of the Ontario Department of Agriculture informed me that egg circles were to him a disappointment, and only served as very convenient feeders to the wholesale company distributing the eggs.

I suggest, therefore, the formation of co-operative sales associations, the capital stock of which should be provided, not necessarily by farmers, but having this proviso in their constitution, that after the payment of a certain fixed rate of dividend to the stockholders, say 7 per cent., all surplus profits should be apportioned among the patrons of the organization in proportion to amount of product supplied by each, the stockholders to receive also a proportionate amount on the value of their holdings. Similar arrangements are often made in the case of industrial companies, and while I do not now suggest means for the exactness of my plan if once the idea spreads and takes hold of the farming community I am confident such means will be found.

Leeds Co., Ont.

W. J. FLETCHER

### A Little General Farm Talk.

Editor "The Farmer's Advocate":

The practice of selling of all produce in the fall of the year to meet payments which come due at that time is what keeps the poor man poor, i.e., if principal, interest, rent, taxes and machinery payments could be made in May and June instead of October and November, it would give the farmer a better chance to feed more stock during the winter months and the more stock well fed on the farm the better the farm is fed. Feed the farm and the farm will feed you and it is equally true that if you starve the farm the farm will starve you. I bought a poor fifty-acre lot with only a very small capital and made arrangement to have my payments fall due in May. This gives me a chance to buy grain and my feed which I can feed with good results. Although the price of grain is high this winter I buy all the grain for my cows and feed them so they milk well. Feed flour mixed with cut straw and fodder corn is their main ration with a few roots in mild weather. I don't see much gain in feeding roots

in zero weather, more grain is better. A silo is a good thing to have, but if you cannot afford it, plant early dent corn with a seed drill so it will not grow too rank and tall, and don't let it get too ripe, cut it with a corn binder; put it in fair sized shocks and when it is fit haul it in and build it in the mow the same as grain sheaves, except instead of building it with the tops up make sure and mow it in with the butts up. In this way it will keep all right in the early part of the winter. At the cutting box, mix corn and straw about half and half. After the cutting is done, tramp the cut feed down all you can, especially around the edges. Follow this plan till you can afford a silo. I like to have my cows go dry during the months of July and August and freshen in October and November, I strive for this although it is easier said than done.

Middlesex Co., Ont.

F. J. MATHERS.

### The Seed Grain Situation.

Never in the history of the Dominion has there been a greater need for care and selection in the case of seed grain than during the present season. The whole country is clamoring for an increased production in 1915 and if we are to have an increased production we must have either a greater acreage or a more carefully prepared acreage, possibly both. If we have a greater acreage more seed will be needed. If we have a better preparation better seed will be required. It is absolutely essential that the very highest quality of seed be put in the ground in the spring of 1915. The careful farmer at threshing time saves the grain from the choicest portion of the best field of each variety he has on his place, that is, provided he has a clean farm. If his farm is over-run to a greater or lesser extent by noxious weeds he is obliged to look elsewhere for his seed, but invariably he demands good, clean seed, pure as to variety, plump and viable. The man who selects from his own field goes to his choice bin early in the winter and cleans and recleans this seed until he has a uniform sample throughout with the small seeds discarded and all the dirt and rubbish blown out. It requires more than one cleaning to make suitable seed grain even of the cleanest seed from the threshing machine. We have known careless men, who have left the preparation of the seed grain until ready to sow the field, rush to the granary and from the feed bin shovel into bags grain just as it came from the threshing machine, and sow this in a wild rush to be the first done seeding. True, the early bird gets the worm as far as seeding is concerned, provided the land is in proper condition for putting in the grain, but the man who sows uncleaned seed in this way loses more than would repay him for the extra labor in cleaning and recleaning the seed even though this had to be done in seeding. But there is no need of leaving the work until seeding. Every good farmer practices a rotation of crops, knows what each field is to be sown to next spring and also the quantity of seed of each grain he will require to sow his acreage. There is no excuse if he allows the winter to pass without getting this seed ready for the land. It may not be the best of policy to do all the cleaning too early but it surely is better than to leave it too late. Always save enough seed that if necessary three or four cleanings may be made and there will still be left of the final selection plenty and to spare.

It is a good practice the first time through the mill not to screen too closely but to put on an extra amount of wind and blow out all the light seed and dirt. Then the next time through a screen coarser than the general run for cleaning market grain may be used and this will take out all the small seed and leave a large plumper sample. If the grain is fairly pure these two cleanings may be enough but the most careful growers often decide on a third or even a fourth run through the mill, sometimes using again a coarser screen or simply the same coarse screen that was used on the second time through in order to make a little more uniform standard. One thing is certain that there is no danger of too much cleaning. We would advise readers to get busy and prepare their seed as early as possible for next spring's seeding. There is a considerable difference in yield per acre from well-cleaned, plump seed than from carelessly prepared poor seed and the good seed pays every time. There is also a big difference in yield between early seeding and later seeding after the land is ready to work in the spring. Each day delay means fewer bushels per acre at threshing time. Have everything ready when the fields are ready and reap the biggest harvest possible next year.

### An Impression.

A subscriber and correspondent recently visited "The Farmer's Advocate" farm "Weldwood," and in writing to the paper later concluded thus: "The car was coming again so we hiked feeling well repaid for our 15 cents outlay, and believing you were making a good, practical, honest attempt at everyday, common-sense farming without too many frills or an over-abundance of modern agricultural science."

### Make Repairs Early.

It is not too early now to begin looking over the farm implements and machinery and get them in the best possible repair, ready for the fields when spring opens up. The winter is still young, but with chores, wood cutting, and other farm work it soon slips away, and all too often the farmer is caught by an early spring wholly unprepared to rush ahead with the spring work, which means so much to his yields the following summer. Now is the time to get the harrows away to the blacksmith shop and have them sharpened. One stroke with a sharp harrow will do better work than two with a harrow which has the points worn blunt, and the rush of seeding does not permit of making extra work which may be accomplished at once over the ground. Cultivator teeth should also be sharpened up and ready to do the work required of them. Most modern cultivators have detachable points which may be easily kept in the best of condition to thoroughly stir the soil. Take these with the harrows and get them ready. Seed drills and all tillage implements should be gone over first, all nuts tightened and repairs seen to. After these have been completed the mowing and harvesting machinery should get like attention, so that when the season comes when they are needed no time is lost in running to the nearest town to get small repairs which have been neglected. Time at this season of the year does not mean quite so much as time when seeding is at hand, or the harvesting awaiting the reaper.

A great deal of loss to farm machinery is also caused through rust. On warm days during the winter or early spring before seeding is commenced money could often be saved by applying a coat of paint, not only to the wood parts but also to the metal. The paint will arrest decay of the wood and will stop, to some extent, the work of the rust. A well-painted piece of iron or steel does not rust like one from which the paint has been rubbed through use. The life of the average farm implement or machine is altogether too short; in fact, it is not, in many cases, fifty per cent. of what it should be, due almost wholly to carelessness and neglect in keeping up repairs and in painting and repairing as required. Of course, we take it that all the implements and machines are housed at this season. The man who leaves his binder, mower and rake in the fence corner or under a tree to winter is the best customer of the implement agent.

## THE DAIRY.

### Cows a Safe Investment.

Present indications are that a great many dairy farmers are contemplating slowing up a little on the dairy industry during the present crisis. All kinds of feed are high in price while milk and milk products have not risen appreciably on account of the war. The dairy farmer who has been making progress in his work during the past few years, should be slower than perhaps any other class of farmer to change his system of farming as a result of the war. True, the dairy situation is a complex one and restrictive measures increase expenditure, especially where milk is produced for city trade, but the dairy farmer is on solid ground and his investment is safe and he should not rush to get rid of good cows even though feed may be high in price and milk products not advancing in proportion. He must remember that his product is one for which the demand is still growing and of which there is an increasing home consumption. A great many dispersion sales are being held and are likely to be held during the winter and spring and these give the buying public an excellent opportunity of adding some first-class tested dairy stock to their farm equipment. No better policy could be followed than to buy some of this stock and to make it a point to improve it and increase the production per cow of the dairy cattle of this country. As far as those who have studied the industry can foretell there is no indication, at the present time, that dairy products will become lower in price. There is, however, a chance to get higher prices by making an appreciable improvement in the quality of the output of the dairy. There seems to be a good future for the man who will breed the right kind of dairy cattle and who will pay particular attention to increasing the production per cow and the quality of the output, whether it be milk, cream, butter, or cheese.

The year 1914 was not noted for an over large selling of dairy cattle. The financial depression may have been responsible for this but indications at the present time would lead us to believe that heavy sales are likely during the coming season. We hope that breeders will not allow a panicky feeling to get rampant amongst them and make an attempt to unload dairy stock promiscuously. There is no call for such a move and the only benefit it would have would be the giving of an excellent chance for beginners in

POOR COPY

dairying to secure dairy stock at reasonable prices, because if hundreds and thousands of dairy cows were thrown on the market, as in the case of any other commodity in which the supply is greater than the demand, prices would surely drop and the popularity of dairying would receive more or less of a hard knock.

There is sure to be in the near future a greater demand than ever before for the best class of pure-bred sires and pure-bred females of the dairy breeds. We are only beginning progressive dairying in this country and yet our breeders have made rapid strides as official records prove. It is by the records that profits will be made. The cow and the sire of the future must show that they are capable of that class of production which puts them in the list of toppers heading the line of profitable producers. A good dairy cow is a safe investment at any time and she is a good thing to keep on the farm at this time. If she is valuable to keep she is also a safe proposition for the buyer. If some must go, send away the low producers and keep the proven individuals.

**Be Provident and Harvest Ice.**

We never realize the value of a thing while we have it in abundance, when we are without it we regret our prodigality and lament that we lacked the provident nature in time of plenty. Who has not had that feeling during the sweltering summer days when the milk sours easily and provisions are difficult to preserve. A few tons of ice snugly stored away beneath a foot of good sawdust is worth all the trouble and expense connected with it.

A winter such as we are experiencing provides ice in plenty in most districts of Canada, and if one wishes to be popular with his neighbor there is nothing that will draw friends around him like a few blocks of ice to give away in the warm summer weather. There is something beyond this. It has gotten to be almost a national question concerning our dairy products. From all quarters we hear that the quality of Ontario dairy products could be improved. Western Provinces, although new in the game, are old in successful experience, and have something to tell Ontario already about the manufacture and sale of products of the dairy. In connection with creameries, in particular where collections are only made three times a week, it is necessary to provide some artificial means of keeping the product cool, or an ill-flavored and tainted butter will result no matter how efficient the management of the factory may be. It is the duty also of the farmers to provide their home with ice, and seeing that it is usually quite close at hand and that it can be gathered when the work is not very rushing on the place, there is little excuse in most places for farmers being without that necessary commodity. It is not necessary and in the majority of cases unwise to erect an expensive ice-house. A shelter, good drainage and a foot of sawdust with a little hay thrown on top will keep ice under average conditions, and if farmers do not wish to erect elaborate buildings the storage need not be a prohibitive proposition. Approximately \$60.00 would provide material for a building 10 feet by 16 feet, which could be subdivided into an ice-house proper being 10 feet square, and a small adjoining store room being 10 feet by 6 feet. The smaller room need have no particular insulation, as it would simply be a storage room where the cream cans would be kept in a tank or a box could be provided that would act in the capacity of a refrigerator. However, a small partition in the drive-shed, wood-house or any outbuilding which has drainage and is sheltered from rain will keep ice.

In gathering the ice, of course, particular care should be given to the quality. Layers of ice and snow together are not suitable. A thickness of one foot should be secured if possible, and packed securely in one solid block by breaking the joints and filling the chinks with ice or snow. It is unwise to fill the space between blocks with sawdust. The aim should be to make the air space as small as possible, and in order to do this the blocks of ice should be even and uniform and laid together in such a way that the space between the blocks is reduced to a minimum. With plenty of room there should be one foot of sawdust below the ice and at least one foot around the edges. Between one and a half and two feet of sawdust on top with an additional quantity of hay or straw should, under normal conditions, cause the ice to keep satisfactorily. Allowance should be made for settling in the middle and at the sides, so two feet of sawdust on top is none too much.

Where there is no natural pond or lake in the district, certain communities have co-operated in the formation of such a body of water by damming up a small stream. It should be made as deep as possible in order to produce good quality ice. Where dairying is practiced it is advised to harvest at least one ton of ice for each cow. Two or three tons per cow would be better, but circumstances will govern this.

If possible procure old sawdust, the green material is liable to heat and destroy the ice to

some extent, but if the green material must be used too great a thickness should be avoided, as it will tend to increase the heating propensities. In a case of this kind use more hay or straw.

**Advantages of Winter Dairying**

Years ago when dairying was not the highly specialized industry that it is to-day, very few cows freshened in the fall or early winter, winter milk in small quantity being procured from "strippers" which would begin their lactation period the next spring about the time the grass was ready to be turned upon. An increased home demand for milk and cream and milk products generally and the comparatively high prices which have ruled in winter have changed the general practice of the wide-awake dairyman, who now plans to breed his cows so that they will freshen in the fall or early winter, and with this change he of course must grow more feed for winter in order to push his cows to their best production. This means more silage, more roots, more clover and alfalfa and a better all round farm. It is conceded by men who shove cows to high records that bigger annual yields are obtained from cows which freshen in the fall. At the beginning of the lactation period a cow always milks well, if she is a dairy cow, and with good feed through the winter her production may be kept high. Then, just at the time when she begins to fall off, in flow grass comes and luxuriant pasture grass always stimulates milk flow so that for several months during early summer her flow is maintained at a high level whereas had she freshened in the spring it is more than likely she would fall off greatly in flow at the time of going into winter quarters the following fall. Fall freshening is a good way to increase production. Besides the heavy flow comes in winter when prices are highest. All that is required is to grow considerable corn for silage and clover and alfalfa for coarse roughage and a few mangels for corrective feed. All these crops tend to improve farming practice. Corn and roots, clean land; clover and alfalfa enrich it. More manure is made from better feeding and taken all together, winter dairying is the best dairying. Late February or early March is a good time to breed the cows.

**HORTICULTURE.**

**Experience Inspecting for Peach Diseases---Yellows and Little Peach.**

Editor "The Farmer's Advocate":

First I will endeavor to describe the symptoms by which we identify diseased trees. As to the Yellows, can we identify the disease by any set rule? In other words, does the disease, Yellows, always exhibit itself in the same form each year? I find it does not. In some cases the first symptoms of disease will be seen in the red spotting of the fruit alone, there being not the slightest evidence of disease in the foliage, while probably the next season, the foliage would show disease first. The red-spotted fruit, if allowed to remain on the tree, will in the course of about two weeks become as red as blood through the whole flesh of the peach. This is an advanced stage of the disease. Again, the first to be noticed of the disease is a tuft of very slender twigs of a pale willow color with leaves much smaller than would be found on other parts of the tree. These tufts will be found on the large branches usually not very far from the trunk, and in some cases on the trunk of the tree. Another symptom of the disease will occasionally be found in very tiny little buds or shoots starting out on the main branches usually not far from the trunk. These tiny shoots or spurs are generally not over an inch in length with very slender small leaves, being yellow verging to pink at the edge of the leaf, and apparently are second or new growth which generally make their appearance in July or August.

Another symptom of disease in trees from two to four years planted is a noticeable pale yellowing of the foliage in the branches in the centre of the trees first, and then spreading throughout the trees in the course of two or three weeks. In aged trees the disease does not show itself always on the branches in the centre or body of the tree, but more often on the branches well to the outside or top of the tree. Ordinarily the first symptoms of Yellows and Little Peach are identical, namely—a yellowing of the foliage at the base of this season's growth, and rapidly spreading; the foliage soon begins to curl and cluster, excepting the tips of the branches, which will remain green and healthy looking until probably the next season after the tree has been affected when the tips will also become yellow. After the Yellows reaches an advanced stage, it is readily identified from that of Little Peach disease. In the case of the Yellows there is a premature ripening of the fruit and quite often while the fruit is yet quite green, small swellings

appear just under the skin of the peach (about 1/4 size of a wheat grain) causing it to have a lumpy uneven appearance. Another way to distinguish Yellows from Little Peach without the aid of the fruit—there will be found in the majority of Yellows diseased trees a very peculiar bright red blotching on an occasional leaf, though it needs the practiced eye to distinguish between it and the ordinary red leaves commonly found on the trees in the inspection season. I have never seen this peculiar red leaf on trees affected with Little Peach.

The affect of Little Peach disease on the fruit is directly opposite to what we find in the fruit of the trees affected with Yellows. The fruit on trees affected with Little Peach will seldom grow to more than one-third the size it would on a healthy tree, and will be about two weeks later in ripening; it will be found lacking in flavor, dry and slightly bitter in taste.

The inspector must be able to identify the white-fleshed peaches from the yellow-fleshed by the foliage alone, as disease does not affect the foliage of the white-fleshed varieties, and Elbertas in the same way it does the yellow-fleshed peaches. Disease in the Elbertas and in most of the white varieties will not be found curling or clustering, and will remain green for a considerable length of time after being diseased. The foliage will be seen to droop, the leaves on the branches to slightly roll, making the tree have a wilted appearance. In determining whether a tree is diseased by the fruit, care should be taken not to condemn a tree because the fruit is red just at the pit, for several varieties of peaches are always found highly colored near the pit, such as Barnards and Triumphs, etc.

This season my attention was drawn to a very uncommon case of disease in a three-year-old orchard where the disease made its appearance in the tips of the branches and did not extend more than six inches at first. The trees were allowed to stand not marked, to allow us to watch the development of the disease. In three weeks' time it had spread downwards into the body of the tree, the foliage curling and showing a positive case of disease. In my experience as an inspector, covering a period of twenty years, I have never observed a similar case.

Root-gall will cause the foliage to become yellow, and is sometimes mistaken for disease.

Peach-borers when working badly in the trees will cause the foliage to look bad.

Peach-canker will cause a yellowing of the foliage, but usually will not extend to branches that are not cankered.

One would naturally suppose disease would more often be found on poor, impoverished soil than on rich, well-tilled land; but this is not the case, for some of the most badly-affected orchards I have seen were heavily manured, well-drained and well-cultivated; and in other cases neglected orchards were found badly affected. From observation I am inclined to believe that disease will be prevalent in orchards standing on soil where there is an excess of lime, or where there is a soaking of water coming from a limestone formation into the orchards.

The most disastrous results from Yellows and Little Peach I have ever seen were in orchards where there was plenty of limestone rock or where limestone rock was close to the surface soil. The orchard I referred to contained a thousand trees or more and the entire orchard was wiped out with disease in eight years after it was planted. From experience I would say orchards standing near a large body of water (other conditions being equal) have less disease in them than where they are a distance away from water. There is no doubt in my mind but that there are local conditions which seem more favorable to Yellows and Little Peach in some localities than in others. I know of one particular section in this Niagara district where Mildew is more prevalent than in any other part, and there Yellows and Little Peach are also oftener found than in places farther away.

Throughout my experience inspecting for peach diseases I have found that orchards situated near what is commonly called "the mountain," which extends through the Niagara district, have always proved to be the most seriously affected with Yellows and Little Peach. At the base of the mountain there are some sections where at some period of time there has been carried down by large streams of water, soil mixed with limestone, and this covers an area of from eight to ten acres. Peaches planted on these places grow rapidly, but soon die out with Yellows. Again, about half way up the face of this mountain there is a bench or ledge of land, in some places wide enough for planting an orchard, and I have known of several orchards being planted on it, but not one single orchard survived more than seven or eight years before the Yellows wiped it out. Again, orchards planted just on the top of the mountain are badly affected. Along the face of this mountain there is more or less stagnant air, but immediately on the top there is good air drainage yet the stagnant air from decaying vegetable matter on the face of the mountain is

carried up to orchards on the top by the north and north-west wind. I am undecided how to account for so much disease in this particular locality; whether it is climatic conditions or soil conditions I am not prepared to say, but am inclined to think climatic conditions the chief factor accountable for so much disease in this district. I am fully satisfied that where diseased trees are promptly removed and burned the disease will not spread very badly, and on the other hand, if affected trees are allowed to remain standing for a month or more there are nearly double the number of diseased trees the following year than there would have been had the diseased trees been removed promptly.

From experiments carried out at the Vineland Experiment Station, it has been proved that diseased buds inserted in a tree will require two years before the disease will be visible in the tree, and from this evidence I would think it would be better to have an inspector examine the tree from which buds are being procured.

After the most careful investigations carried out by those who have made a study of the diseases of peach trees, none can tell us at what particular stage of development the disease spreads to other trees. As yet there is no proof that Yellows can be transmitted to healthy trees by bees carrying the pollen from one tree to another. It has often been said by fruit-growers that diseased trees cut down and dragged through an orchard would spread the disease to other trees. I have never seen proof that such is the case, for I have taken badly diseased branches and brushed and whipped them against the foliage and branches of healthy trees, and failed to inoculate the tree with disease.

One large peach-grower seems to be of the opinion that Yellows is more prevalent following a season after a bad attack of Peach-Curl or Curl-Leaf. If this were true, we would expect to find more disease in Elbertas than other varieties because Elbertas are more subject to Leaf-Curl than most other varieties. However, we do not find Elbertas more subject to disease than other varieties; all varieties are subject to Yellows, seedlings as well as others. If there is any variety more susceptible than another to disease it is the Triumph, and it is more difficult to identify Yellows in the Triumph when determined by the fruit alone than any other variety I know of.

In 1911 there were nearly 60,000 diseased trees in Niagara and Fonthill districts; in 1912, 25,000; in 1913, 5,901; in 1914, 3,000. The decrease from 60,000 in 1911 to 3,000 in 1914 is due to the splendid co-operation of the peach-growers with the inspectors in promptly destroying diseased trees.

WALTER E. BIGGAR,  
Chief Inspector of Orchard Pests for Ontario.

### Watch the Young Trees.

This is the season when mice and rabbits are liable to do their injury in the young orchard. When the snow is banked high around the trees and no damage is visible above, the field mice may at that time be girdling the tree and rendering it useless, and perhaps lifeless for all time to come. It would be wise to tramp around all of them. If there is any danger such a practice would break up their runs and divert them from the trees. If it is possible though, where the snow is not too deep or where the trunks are accessible, to protect them with something substantial it is wise to do so. Building paper, veneer or wire netting will serve the purpose, and it is against the depredations of rabbits that they are most necessary. Not only do the rabbits chew the trunks, but in reaching for the tender bark of the lower limbs they scrape the trunk of the tree with their paws in their endeavors to reach the branches.

Most varieties of small fruit trees require pruning, and it has been found expedient during the winter months to cut off some of these fresh twigs that would be removed in the spring and let them lie on the ground. They are devoured by the vermin while the trees are spared, and many plantations have been saved in this way. This is the season when most damage is being done. Growers should beware.

### Bad Taste.

Editor "The Farmer's Advocate":

The people of British Columbia are good at barring entrance into their Province, one thing being the good Northern Spy apple of Ontario. Having shipped a barrel of Spys to a friend in Vancouver this fall, he writes me that all Ontario apples are prohibited and are condemned by the B. C. Government. They don't know what's good for them.

Middlesex Co., Ont.

N. Y. Z.

## POULTRY.

### Meat and Vegetable Food for Hens.

A short time ago a discussion took place in this office over the feeding of meat and vegetable food to poultry. To clear the matter up we wrote to Prof. W. R. Graham, of the Ontario Agricultural College, who advised that best results would be obtained from cooking the meat food if this could be done at reasonable cost. The best plan he believed would be to boil some of the meat along with pulped roots, and then use about five to ten per cent. by bulk of the meat with one-third cooked roots and this dried off with barley meal or middlings, or in fact whatever chop may be at the feeder's disposal. The original argument was whether it was harmful or not to feed meat food raw. Very often on the farm an animal dies from no contagious disease or is accidentally killed, and the meat in winter may be utilized for the poultry. Many feed this raw, hanging it up in small chunks in the poultry house where the birds may pick at it at will. It was argued that this was a dangerous practice and where there is any disease in the meat it is, but Prof. Graham states that there would not be much fear of feeding raw meat in fairly liberal quantities provided it comes from healthy animals, and it would do very little harm unless fed in fairly large quantities to birds being held for breeding purposes. Somehow or other meat food in unlimited quantities works against fertility and hatchability in eggs.

Prof. Graham also stated that the most convenient form of feeding raw meat at this season is to freeze it and then put it through a bone cutter and feed it in this state. However, he believes that maximum results could be obtained from boiling roots, boiling the meat and mixing all in with a meal or chop in the form of a mash. With regard to feeding meat it may be said that the harm done to breeding fowls may be counteracted by feeding a liberal supply of vegetable food, such as cabbages, mangels, or green food of some kind.

## FARM BULLETIN.

### The War.

By Peter McArthur.

During the past few weeks a number of correspondents have asked me to write about different phases of the war, and above all to "tell the truth about it." To that challenge I do not hesitate to respond. To me the outstanding truth is that Canada is most horribly at war and many Canadians do not realize it. No matter what our opinions may be about the causes of the war, its justice, or our duty as loyal citizens of the Empire, all that we are, all that we have and all that we hope for are now at stake. With Germany triumphant we might expect terrible reprisals for the part we have already taken. To look for protection to the United States and its Monroe Doctrine is neither brave nor dignified. If the British Empire should be destroyed in this war the existence of Canada as a free nation would be impossible. With militarism triumphant in the world our fertile and undefended fields would be too rich a prize to be overlooked. We must fight to crush militarism or be crushed ourselves. The position of Canada at the present time seems to me to be like that of a son who is in business for himself, but still living under the home roof. He may be paying his own way and showing proper respect to his father, but if the house is set on fire by an enemy of his father he cannot stand aside and say it is his father's business to put out the fire. Both filial duty and self-interest will urge him to do all in his power to put it out. If the home is burned down he will be homeless as well as his father. He must act even though he may be convinced that his father should not have had that enemy. Though he had no part in the enmity that caused the fire he is involved in the disaster, and must play his part like a man. No matter what motive inspires a man's temporal actions, whether loyalty to Canada, loyalty to the Empire or the narrowest personal selfishness he must support this war and do all in his power to bring it to a successful issue. We have chosen our course, and there can be no turning back either in safety or honor.

Ever since becoming a writer for the public press I have written against war, trying to do a little towards educating my fellow men out of the delusion that war is either desirable or necessary. The fact that I have written the above paragraph does not mean that I have changed my attitude. Although a man may devote much of his energy to educating people to prevent fires, it does not mean that he will not fight a fire when it breaks out, or that he will be without the necessary appliances to put it out. War is still horrible to me, and I have faith that all the world will soon realize that it is so horrible

they will make an end of it forever. At present it is futile to discuss such questions as whether preparedness for war causes it or prevents it. That all belongs to another era. Instead of reasoning against war we must fight against it, since there is no other way of ending it. I have faith that it is no part of Canada's destiny to be destroyed in this conflict, and that the peaceful conquest of the wilderness by our fathers is not to give place to an armed conquest, but to-day the fate of Canada is in the balance. I cannot find it in my heart to urge any man to enlist, since I do not myself fall within the limits prescribed for those who may shoulder arms, but I cannot refrain from stating the gravity of the present crisis. The battle for our freedom which is being fought in France and Belgium is still far from being won, and it is not for us to stand by idly while the result is in question. The native-born Canadian has everything at stake in this war as well as every other citizen of the Empire. Even though he may not have the opportunity of serving his country in battle he should still feel the urgency of the call, and do his part with whatever means he has at hand. If food should prove more necessary than soldiers we must provide the food and provide it freely. We must do all in our power whenever the opportunity offers. That is the truth about the war as I see it.

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At last I have found the ideal subject for debate in the country. At the literary societies they are debating the relative merits of war and peace, of country and city life and similar subjects, and I may remark in passing that I have long since stopped trying to give assistance to debaters who write asking for it, whether they enclose a stamped envelope or not. The chief value of a debate lies in the individual work done by the debater, and even if I were able to furnish winning arguments, which is by no means probable, I would be doing more harm than good. Besides I am kept fairly busy digging out ideas for my own use. Of course, I appreciate the compliment of being thought able to help, but even that appeal to my vanity no longer moves me. But to get back to my subject. I have found a subject which I should like to see debated to a definite conclusion by the readers of "The Farmer's Advocate." To-day we killed a beef, and the question has risen whether the value of the meat should be set down in the family accounts at the cost of production or at its present market value. I contend that as this yearling cost me only its pasture and a moderate amount of feed I am out only the cost of production. But I am told that I might have made a good profit by selling the beast, and that I should add that possible profit to the cost. Who is right? In the meantime I am going on drying part of the meat, making corned beef and force meat of more of it, and keeping the roasts in cold storage for immediate use. Judging from the present state of the argument I am inclined to think that the beef will all be eaten before the question is settled unless someone comes forward with an authoritative pronouncement on the matter.

### The Annual Meeting of the Experimental Union

The Annual Meeting of the Ontario Agricultural and Experimental Union will be held at the Ontario Agricultural College, Guelph, on the 12th and 13th of January. One of the most important features of the Experimental Union is always its co-operative work amongst farmers. These experiments have become very general throughout the Province, and it is through the medium of this organization that some of the best varieties of farm crops have been introduced, and are now grown extensively, as for instance, the O. A. C. No. 21 Barley, the O. A. C. No. 72 Oats, etc. The co-operative work of the past year has been carried out along six different lines, and the results should be of much interest and value.

Particular attention will be given this year to the increased production of food stuffs. There was never a time in the history of the British Empire when such close attention was needed to increase production of the real necessities of life. The following are some of the subjects which are to be discussed at the Annual Meeting: "Ontario's Opportunity in Food Production Under Present Conditions"; "Bean Growing in Ontario"; "Canada's Chance in Heavy Horse Breeding"; "Some Important Ways in Which Farm Life in Ontario Might be Improved"; "Agricultural Information Gleaned on a Recent Trip to New Zealand, Australia, China and Japan"; etc.

All sessions of the Experimental Union to be held on Tuesday and Wednesday, January 12th and 13th, are open to any person interested in agriculture, and every one is welcome and invited to take part in the Meeting. Cheap rates have been arranged for on the certificate plan. For fuller particulars and a copy of the program apply to the Secretary, C. A. Zavitz, Agricultural College, Guelph, Ontario.

### A Big Consignment Sale Company Organized

A meeting of vital interest to stock breeders of Western Ontario was held in the City Hotel, London, Dec. 31, when an organization was formed to deal with the selling of stock on consignment to headquarters at London, Ont. Upwards of thirty of the well-known live-stock breeders from all parts of Western Ontario availed themselves of the opportunity to get together and discuss the matter of forming a consignment sale company, which ultimately materialized in the form of a joint stock company capitalized at \$5,000 in shares of \$10 each, ten per cent. of the subscribed capital to be paid on call, this money to provide the necessary capital for commencing operations at once. Considerable discussion took place regarding the advisability of forming a joint stock company but not a dissenting voice was heard, all were agreed that Western Ontario is one of the finest live-stock fields to draw from that could be found in America, and it was pointed out that at the present time there was no big organization or private sales company west of Toronto in Ontario which handles all classes of live stock. The need is apparent, and London being the most central and the largest city in Western Ontario was at once decided upon as the place to hold the sales.

Furthermore, the management of the Western Fair very generously granted the new association the use of the Western Fair grounds and buildings, and hinted that were it needed a special building might be constructed in which to hold the sales. Taken all together the conditions under which the meeting met and the favor with which those present looked upon the project augurs well for the success of this new organization, which should, if properly managed and rightly supported by the men in whose interest it has been formed, grow into one of the most valuable organizations in this country for the advancement of the live-stock man's interest.

We believe it is proposed to hold a monthly sale at the Western Fair grounds in London. All classes of stock are to be included. It remains with the Board of Directors to arrange the manner of selling. It is suggested that pure-bred stock and grade stock alike be disposed of through this organization, making it a distributing centre for all kinds of live stock in Western Ontario. The details are yet to be worked out, but some of those present thought that it would be advisable in having sales to confine the animals sold on one particular day to pure-breds of the beef breeds; of cattle another day pure-breds of the dairy breeds, then a day for sheep and swine and a day for horses as the case might be. Some pointed out that it would not be advisable to sell grade stock and pure-bred stock at the same time. However, this is a matter of detail to be worked out by the officers of the company. The point that interests all those producing live stock is that all classes of stock are to be sold, and if a man has a team of horses or a half dozen feeder cattle or a few pigs or some high-class pure-bred stock, it matters not, all will be handled by the association. This gives an excellent opportunity for those operating on a small scale to do business in a large way with big men, and get the benefit of experience and organization. One good point which was settled at the meeting was that shareholders, no matter how many shares they hold, will be allowed only one vote. It was pointed out in the beginning that the company was not operating so much as a money-making venture as it was to aid in the disposition of good stock in Western Ontario. This being true, and the shareholders being live-stock men, there could be no reason why one man should have more votes than another. Allowing each share to carry with it the privilege of a vote would, provided the organization becomes a success, as it surely will, have a tendency in a short time to place the control of the entire company in the hands of a few monied men and take it entirely away from those men to whom it rightly belongs. We are pleased indeed to note that the company has started right in providing sufficient capital to operate on a sound basis, and we are also pleased that they saw fit to adopt the clause of "one man one vote," because, with plenty of money and a regulation of this kind, all that it needs is a good, capable, energetic, honest manager ready to put his whole energy to the task of developing the work of the organization, backed-up by a directorate ready and willing to do everything in their power to make this the biggest and most successful live-stock company in the Province.

There is a big field in Western Ontario. Who knows but that with proper management and an aggressive policy this organization might not sell practically all the live-stock marketed in Western Ontario. It might bring live stock yards much closer to many farmers' doors, and selling direct, as it will, might also put considerably more cash in the producer's pocket. Besides all this it surely will be one of the best places to buy and sell pure-bred cattle, horses, sheep and swine available to the buyer and seller alike. It is a

big project and has some good men behind it, for as provisional directors were appointed, S. R. McVittie, Muncey; Capt. T. E. Robson, London; J. D. Brien, Ridgetown; Harry Smith, Hay, and J. T. Gibson, Denfield. As previously stated the details of the organization are yet to be worked out, but the company is going about it in the right way, is applying for charter and plan to do everything in an honest, straight-forward, business-like manner which cannot help but establish confidence in the minds of all those who have any dealings with the company. Here is success to the Western Ontario Consignment Sales Co.

### Ayrshire Sale at Ingersoll

The first annual auction sale of Ayrshire cattle under the auspices of the Southern Counties Ayrshire Breeders' Club was held at Butler's Sale Stables, Ingersoll, on Wednesday, December 30th, 1914. Fifty-eight head of Ayrshire cattle came under the hammer which was wielded by Moore & Dean and sold for the grand total of \$5,490. The highest price paid was for Scotch Thistle, one of J. A. Morrison's consignment. She was purchased by A. S. Turner & Son, of Ryckman's Corners, for \$230. The fifty-eight head averaged \$94.65 each. Seven of this total number were calves and twenty were yearlings. The seven calves averaged \$50.35, while the twenty yearlings averaged \$67.12. The day was favorable for the sale and the accommodations good, while bidding was fairly prompt considering the conditions which are now curtailing all kinds of commercial deals. The buyers came from considerable distances but mostly from Western Ontario. Following is the list of the animals and their purchasers which realized \$100 or over per head:

Annette 5th; M. M. Fergusson, London,	\$180.00
Brownie of Fernbrook; E. B. Palmer & Son, Norwich,	145.00
Scotland Princess; Emerson Moulton, Mt. Elgin,	200.00
Scotch Thistle; A. S. Turner & Sons, Ryckman's Corners,	230.00
Advance's Primrose; J. W. Gregg, Ingersoll,	100.00
Columbine; C. C. Gill, Mt. Elgin,	120.00
Grace of Springbank; E. B. Palmer & Son	105.00
Briery of Mapledale; John McKee, Norwich,	170.00
Lenore 2nd; H. McPherson, Orkney,	140.00
Bessie of Fernbrook 2nd; J. E. McConnell, London,	125.00
Houghton Beauty; Geo. Leslie, Banner,	125.00
Scottie's Nancy 4th; Angus Armour, Dorchester,	115.00
Lassie of Fernbrook; J. Hugill, West Flamboro,	115.00
Mountain Lass; A. S. Turner & Son,	210.00
Eva of Hillcrest; John McKee,	175.00
Chief's Buttercup of Fernbrook 3rd; E. B. Palmer & Son,	105.00
Buttercup of Fernbrook 3rd; Geo. Leslie, Grace of Fernbrook 2nd; E. B. Palmer & Son,	150.00
Rose of Fernbrook, M. M. Fergusson,	105.00
Buttercup of Fernbrook 4th; E. B. Palmer & Son,	135.00
Amelia 4th; John Stansell, Straffordville,	100.00
Buttercup of Fernbrook 2nd; E. B. Palmer & Son,	140.00
	115.00

### Conserve the Breeding Stock

Editor "The Farmer's Advocate":  
Everyone knows that trade conditions and commercial enterprise have suffered a very serious and unexpected upheaval during the past year. To this situation the war has, of course, largely contributed; but other causes, including the general financial depression throughout the country, have been operative for some months past. The agricultural industry has, naturally, been very widely affected by these changing conditions and by the varying situation with respect to demand and supply. The rise in the price of grain, together with the corresponding fall in grain production, represents, without doubt, the most outstanding feature of the direction which has been given to agricultural activity.

We need, perhaps above all things else, sane, level judgment in the conduct of our agricultural affairs during the coming year. It is to be expected that grain production will be largely increased. The raw products of the soil are, and will be in demand at remunerative prices. What then is to be said, what course is to be followed, with respect to the breeding of live stock?

The high price of feed, on the one hand, and relatively low prices for market stock, on the other, have resulted in very heavy marketing throughout Canada, particularly in the Western Provinces, of the stock, suitable for breeding purposes. Perhaps this was inevitable, but will these conditions continue? Feed grain will, without doubt, be high in price, but it must never be overlooked that the country can maintain very large numbers of live stock on the enormous quantity of rough fodder which it can produce.

To waste this, for the sake of the grain which can be grown, would, under the present circumstance, be criminal neglect. It is clear, then, that the country should conserve its breeding stock. If grain is to be grown for sale it is recommended that plans should be carefully thought out as to the manner in which the greatest quantity of rough fodder may become available for feeding purposes and as to the means by which this otherwise waste product, together with the screenings and unsaleable grain, may be utilized to the best possible advantage. In other words eliminate waste. Do it by feeding live stock.

The present low prices for stock cannot last long. A careful review of the world situation makes it clear that there will be a shortage next year. Europe is becoming seriously depleted in both breeding and feeding stock. The United States, for ten months of the current year, at its leading markets is short 746,045 cattle, 208,000 sheep and 1,894,939 hogs. Canada has, as before stated, heavily liquidated her breeding animals and, while it may possibly maintain its quota next year of cattle and sheep, it is doubtful if more than seventy-five per cent. of the number of hogs will find their way to market in 1915, as compared with the current year. It is, therefore, a time for live stockmen to stay with their trade. The present tendency is, of course, all the other way. A safe harvest is likely to be reaped by those who have stock for sale next year. Even bankers and business men are of this opinion.

One word of advice is to be given. Avoid marketing so far as it is all possible to do so during the period of October fifteenth to December fifteenth. This is a time of the year when everybody else has stock for sale. It is a period when packers know that they can fill their cellars with cheap meat. These are the months when the surplus of the whole country finds its way to the packing centres. It is invariably the period of low prices, uncertain markets and disappointing returns to the producers. Breed, therefore, to have your stock available for sale at some other time of the year. Take care to provide sufficient winter feed that you may not be forced to sell when the cold weather comes. Above all, conserve your breeding stock.

JOHN BRIGHT,  
Live Stock Commissioner.

### Royalty and Agriculture.

Editor "The Farmer's Advocate":

The story of Britain's Kingly interest in agriculture is the story of well advised men going out to attain that something which other people were either too afraid to do, or to conservative, or insular, to attempt making any alteration in.

George III. of England was the first king to permanently attach his name to anything appertaining to farming. As an outcome, he was called popularly "Farmer George," and the title was quite deserved, for he ranged alongside Thomas Coke, Robert Bakewell, George Culyey, the Duke of Bedford, and the Earl of Leicester, in their gigantic efforts to improve the conditions of live stock and agriculture in a period when the "common farm" system was in vogue. In that day, the land was cultivated by groups of farmers, who dwelt and farmed together in communities and their stock ran together, interbreeding as they willed, and of course doing no one any good. In George III. an opponent to this system was found, and he established farms at Windsor, Kew, Richmond and Mortlake, all Thames-river places, where he went deeply into the subject of soil study, skilful ploughing, wool improvement and stock feeding. Under the "pen name" of Ralph Robinson he even wrote articles to the *Annals of Agriculture*, a periodical edited by Arthur Young.

George III. was a stout-hearted believer in the value of the Merino sheep. Other men had failed at obtaining good results from a Merino-Down (i. e., Southdown) cross. In 1792 he secured 35 ewes and 5 rams straight from Spain, and they were kept at Oatland's Park in Surrey. When the first clip of this Merino flock—it goes down in history as "the Spanish flock"—was displayed to the buyers they shook their heads—British like! Although the wool was excellent, they said, they felt sure it would not make up so well as it looked, and they politely said "no bid" to the vendor. But George III. would not give in. He had cloth made from this Merino wool, at his own expense, and for a long time he fought the obstinate manufacturers, until at last in 1796 some bought the regal clip at two shillings per pound, a figure a little over the current market rates for Southdown wool at the time. The tide was turning. By 1799 the best of the Merino clip sold at 5 shillings and 9 pence per pound; the second quality was worth 3 shillings and six-pence, and the third a shilling a pound less. As a contrast, Southdown still ranged between two and three shillings per pound.

So the King gained the day, and when he saw that he had immediately stopped giving away the rams and ewes to any and every one who had asked for them. But, instead, he said, any one could have a ram for five guineas and a ewe for

two guineas, and at such figures buyers became very many. The Spanish Grand Junta gave George III. a flock of 2,000 Merinos, the finest in all Spain in 1807, and these went over Britain at George's price. In his reign 3½ millions of acres of farming land were enclosed, i. e., converted from "commons," it being his conviction that the land was never meant to be idle.

George IV. carried on the farm at Windsor but he did not love agriculture, and, in his day, Britain's oldest industry had a distinctly bad time of it. Sheep rot got ahead, and every one's hand seemed turned against the land. William IV., his successor, was a sailor—'nuff said—and it was left to Queen Victoria and her husband the Prince Consort to take up the threads where "Farmer George" had dropped them. The happiest pair in Europe. The Queen and her husband virtually started their honeymoon by granting the Royal Agricultural Society its charter in 1840. The Prince revived the drooping interest in the Norfolk and the Flemish farms at Windsor, and, with happy instinct, established in the year of his marriage the Shaw Farm, meant to be set aside for stock breeding and testing improvements. The Prince farmed 2,600 acres at Windsor; 1,800 acres at Osborne in the little Isle of Wight; and 6,200 acres at Birkhall near Balmoral. He had a manager at each place, and with each he checked the monthly accounts. In 1843 the Prince Consort took to showing stock, and if he attended a Royal Show he would spend hours in the implement yard. He had the mechanical mind strongly developed, and often suggested improvements to zealous stand-holders wanting to deliver him "the real goods." He pulled the Home Farm at Windsor down in 1852, and then a new one—useful and not decorative," as he told the architect, was erected. There he kept Shorthorns and Jerseys; on the Norfolk Farm he kept Devons, and on the Flemish Farm Herefords. In 1848 a Hereford ox won a prize for him at Smithfield Show.

Milk records were kept at the Home Farm, very likely the first place in Britain where they were taken note of. Pig breeding came into the category as a matter of course.

A Southdown herd was established at Shaw Farm, Windsor, in 1854, and in 1857 the French Emperor saw that herd and the Southdowns and made many purchases for improving French stock. Queen Victoria carried on the Royal Farms after the Prince's death in 1861, and the Aberdeen-Angus herd at Abergeldie Mains was established

by Her Majesty as a step towards encouraging cattle breeding across the border.

It was surely appropriate that King Edward VII. should make his first official public appearance, when he was ten years of age, at the Royal Show held in Windsor in 1851. When he bought the Sandringham Estate in 1863 he went right into the business of high-class farming. Of course he was still Prince of Wales, but he showed his disinclination to be partizan by establishing three herds of cattle, i. e., Shorthorns, Highland, and Dexter—Kerries—symbolical of England, Scotland and Ireland. In 1866 he took up Southdown sheep, securing as foundation stock, purchases from the Duke of Richmond, Lord Sondes and Mr. Webb. The Shorthorn herd at Sandringham came along in 1870, and to show his wisdom the Prince established Bates blood at Babingley and Booth blood at the Wolferton Farm. When the eternal Booth-Bates feud settled itself in England the Prince's herds were merged into one—another wise move. The families represented included the Grand Duchesses, Oxfords, Barrington's and Winsome's as well as Paragon, Diadem and Fleecy offshoots. Bulls were, in the course of time, secured from Messrs. Duthie, Deane Willis, and G. F. King. Celt, a bull bred at Sandringham won at the Leicester Royal in 1896 and went abroad for one thousand guineas. At a sale in 1896, the average per head realized was £70 2s. 9d. and in 1900 £69 3s. 3d.

In 1887 the Prince of Wales established his Hackney Stud, and he took kindly to the powerful blood of Lord Derby, Old Confidence Cadet, and Denmark. Match pairs from this stud often sold at 1,000 guineas. The greatest lover of agriculture and live stock was lost to them both when King Edward died. He saw further than most men of his day, and, in everything he did, from breeding-homing pigeons to Derby or Royal winners, he was "thorough."

His son, King George V., is worthily following in the wake of his father—i. e., speaking agriculturally. Like King Edward, King George goes among the herdsmen and grooms and has quite friendly chats with them. Edward's delight at a Smithfield Show was to pull the leg of some old shepherd and then to tell him he was "quite right," even if the astonished son of toil had only stammered out his replies. King George was the hero of a pleasant little incident at the Shire Horse Show I could not help witnessing. In the final fight for stallion championship Champion's Goalkeeper, a young horse, was put over Damesfield Stonewall, a horse of greater size and more

mature, giving a statuesque show and moving like a Spanish galion. The crowd cheered for the veteran; the judges plumped for the other. King George went into the ring to give the cup to the owner of Champion's Goalkeeper, Sir Walpole Greenwell, and there was a few moments pause. His Majesty picked his way over the tumbark to Evar Jones, a Welsh groom standing at the head of the mighty Stonewall. Jones and his King had a real heart to heart tete-a-tete for a good two minutes and one "felt" what was being said. Jones waxed enthusiastic and shook his head at his horse. The King nodded his as an answer. The crowd understood well what the mystic noddings meant and broke out into a big cheer. The judges looked disconsolate and Jones got really "matey" with the King, who, when he noticed that he had got the "hall" rocking, went back to the table and gave away the cup to the winner. I saw Jones sometime after holding a levee of grooms. "What did the King say to you?" I asked him. "Why, he told me I should have won, and if he had been judging I should have had the cup." And every one in the hall knew that that was what the King was saying to his subject.

King George is an all round stock man—he today breeds Shires, Shorthorns, Devons, Herefords, Aberdeen-Angus, Dexters, Southdowns and Berkshire pigs. Windsor has turned out a host of Royal Show winners, and at the Smithfield and Birmingham fat stock exhibitions the Royal entries never fail to get into the money—so much so that the daily newspapers record the King's wins and nothing else. The "story" is always sufficient for London's editors. When his Sandringham Shorthorns were sold recently—the Windsor herd being considered strong enough—a sum of £4,350 3s. was secured for 29 cows and heifers and seven bulls. Scotsmen are proud of the fact that King George maintains at Abergeldie one of the finest herds of "Blackskins" in Great Britain.

G. T. BURROWS.

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JAS. DAVIS.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts at the Union Stock-yards, West Toronto, on Monday, January 4th, were 71 carloads, comprising 1,586 cattle, 339 hogs, 177 sheep and lambs, and 49 calves. Trade in all classes of live stock was active, and prices firm. Choice steers sold at \$8; good, \$7.50 to \$7.75; medium, \$7 to 7.25; good to choice steers, \$7.25 to \$7.60; cows, \$3.50 to \$7; bulls, \$5 to \$7; milkers, \$6 to \$8.5; calves, \$4 to \$9. Sheep, \$5 to \$6; lambs, \$7 to \$8.35. Hogs, fed and watered, \$7.50; weighed off cars, \$7.75, and \$7.15 f. o. b. cars.

REVIEW OF LAST WEEK'S MARKETS

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

	City.	Union.	Total
Cars	12	113	125
Cattle	275	1,066	1,341
Hogs	235	4,259	4,494
Sheep	167	376	543
Calves	8	201	209
Horses		23	23

The total receipts of live stock at the City and Union Stock-yards for the corresponding week of 1913 were:

	City.	Union.	Total.
Cars	6	154	160
Cattle	186	2,571	2,757
Hogs	20	2,569	2,589
Sheep		707	707
Calves		214	214
Horses		3	3

The combined receipts of live stock at the two markets for the past week show a decrease of 35 carloads, 1,416 cattle, 164 sheep and lambs, and 5 calves, and an increase of 1,905 hogs and 20 horses, compared with the same week of 1913.

Deliveries of live stock at Toronto were light, and trade very quiet during the past week. The quality of the fat cattle was common and medium, with the exception of about three carloads of fairly

good steers, the bulk being of the canner and cutter classes. Prices for the few good steers brought in were about 25 cents higher than for the same quality in our last report. Trade in stockers and feeders, milkers and springers, as well as calves, sheep and lambs, was nominal, but hogs were higher than in our last report.

Butchers' Cattle.—Good to choice steers sold at \$7.50 to \$7.75; medium to good, \$7 to \$7.25; common to medium, \$6 to \$6.75; common light Eastern cattle, \$5 to \$5.75; choice cows, \$6.25 to \$6.50; good cows, \$5.50 to \$5.75; medium cows, \$4.50 to \$5; canners and cutters, \$3.50 to \$4.25; bulls, \$4.50 to \$6.75.

Stockers and Feeders.—Scarcely any demand for either stockers or feeders, and prices were nominal. Choice steers, 800 to 900 lbs., \$6.25 to \$6.50; good steers, same weight, \$5.75 to \$6.25; stockers, \$4.25 to \$5.75.

Milkers and Springers.—Few were offered, and not many wanted, consequently prices were easy, at \$60 to \$85.

Veal Calves.—Choice veal calves sold at \$9 to \$10, but not more than two brought the latter price all week; good calves, \$8 to \$9; medium, at \$7 to \$8; common veals, \$6 to \$7, and inferior, Eastern calves, \$5 to \$5.50.

Sheep and Lambs.—Trade in sheep and lambs remained steady. Sheep, ewes, \$4.50 to \$5.50; culls and rams, \$2.50 to \$4; choice, 80 to 90-lb. lambs, were worth \$8 to \$8.25, and a few reached \$8.40; rough, heavy lambs, sold at \$7 to \$7.50.

Hogs.—The bulk of the hogs sold at \$7.75 fed and watered; \$8 weighed off cars, and \$7.40 f. o. b. cars at country points. In a few instances 10c. per cwt. more was paid for choice, light butchers' hogs.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, \$1.10 to \$1.12; Manitoba, No. 1 northern, new, \$1.30; track, bay points; No. 2 northern, new, \$1.27; No. 3 northern, \$1.24.

Oats.—Ontario, No. 2 white, new, 50c. to 51c., outside. Manitoba oats, No. 2, 59c.; No. 3, 56c., lake ports.

Rye.—Outside, 88c.

Peas.—No. 3, \$1.60 to \$1.65, outside.

Barley.—For malting, 68c. to 70c., outside.

Corn.—American, new No. 2 yellow, 70c., track, Toronto; Canadian corn, 81c., Toronto.

Buckwheat.—No. 2, 71c. to 72c., outside.

Rolls Oats.—Per bag of 90 lbs., \$3.10 to \$3.25.

Flour.—Manitoba flour—Prices at Toronto were: First patents, \$6.60; second patents, \$6.10; in cotton, 10c. more. Ontario, 90 per cent. winter-wheat patents, \$4.60 to \$4.65, Montreal.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto. No. 1, \$16 to \$16.50; No. 2, \$14 to \$14.50 per ton.

Straw.—Baled, car lots, track, Toronto, \$8.50 to \$9.

Bran.—Manitoba, \$25 to \$26, in bags, track, Toronto; shorts, \$27 to \$28; middlings, \$29 to \$30.

COUNTRY PRODUCE.

Butter.—Prices were unchanged. Creamery pound rolls, 29c. to 31c.; creamery solids, 28c. to 29c.; separator dairy, 27c. to 28c.

Eggs.—New-laid eggs sold at 55c. by the case; cold-storage, 28c. to 29c.

Cheese.—New, large, 16c.; twins, 16½c.

Honey.—Extracted, 12c.; comb, \$2.50 to \$3 per dozen sections.

Beans.—Hand-picked, per bushel, \$3; primes, \$2.75.

Potatoes.—Per bag, 60c. to 65c. for car lots of Canadians, track, Toronto; New Brunswick, 70c., track, Toronto.

Poultry.—Turkeys, per lb., 12c.; spring ducks, 10c.; hens, 7c. to 10c.; spring chickens, live weight, 8c. to 11c.; squabs, per dozen, \$4; geese, 8c. per lb.

HIDES AND SKINS.

City hides, flat 16c.; country hides,

cured, 15c. to 16½c.; country hides, part cured, 15c. to 16c.; calf skins, per lb., 17c.; kip skins, per lb., 15c.; horse hair, per lb., 40c.; wool hides, No. 1, \$3.50 to \$4.50; horse, unwashed, coarse, 17½c.; wool, unwashed, fine, 20c.; wool, washed, coarse, 26c.; wool, washed, fine, 28c.; lamb skins and pelts, 90c. to \$1.25; tallow, No. 1, per lb., 5½c. to 7c.

FRUITS AND VEGETABLES.

Apples, Canadian, Spey, \$1.25 per box, \$3 to \$3.50 per barrel; Russett, \$3 per barrel; Tolman Sweet, 75c. per box, \$2.75 per barrel; Baldwin, 90c. per box, \$2.75 per barrel; Ben Davis, 75c. per box, \$2.25 per barrel; Snows, \$2 to \$3.50 per barrel; bananas, \$1.50 to \$1.75 per bunch; cranberries, \$5.50; grape fruit, \$2.25 to \$3.25 per box; lemons, California, \$3 to \$3.50 per box; oranges, Florida, \$2 to \$2.75 per box; pine-apples, \$3 per case; beans, \$3.50 to \$4 per hamper; cabbages, 25c. to 40c. per dozen, \$1 to \$1.25 per barrel; carrots, 50c. per bag; celery, Canadian, \$3.75 to \$4 per case; California, \$4.25 to \$4.50 per case; cauliflower, new, \$4.25 per case; onions, Spanish, \$4.25 per crate; Canadian, \$1.35 per bag; turnips, 30c. to 35c. per bag.

Montreal.

Live Stock.—The market for cattle was not overly active last week. Butchers had apparently purchased the previous week for their requirements last week in a number of instances, and were not at all eager to increase their supplies. Very little change took place in the market, however, for the reason that shippers had apparently anticipated the situation and did not ship in very large consignments. There was almost no choice stock, and towards the end of the week it was difficult to get more than 6½c. for best offered. Prices ranged from this down to 5c. for medium to good stock. Cows sold at 3½c. to 4½c., and bulls generally from 5c. to 6c. Some inferior

## THE ROYAL BANK OF CANADA

Capital Authorized - - \$ 25,000,000  
 Capital Paid Up - - - 11,500,000  
 Reserve Funds - - - 13,000,000  
 Total Assets - - - - 180,000,000

HEAD OFFICE: MONTREAL

Branches throughout every Province  
 of the Dominion of Canada

Accounts of Farmers  
 Invited  
 Sale Notes Collected

Savings Department at all  
 Branches

only brought 3½c. Lambs and sheep were in very good demand, and sales of lambs took place at 7c. to 8c. per lb., while sheep were quoted at 4½c. to 5½c. There were very few really choice calves on the market, and prices ranged generally from \$3 to \$10 each. Hogs were in fair demand, and the tone of the market was firm, at 8c. to 8½c. for selects, weighed off cars.

Horses.—The market was very quiet, and the holidays brought out no demand. Heavy draft horses, weighing from 1,500 to 1,700 lbs., were quoted at \$275 to \$300 each, and light draft, weighing from 1,400 to 1,500 lbs., at \$150 to \$200 each. Broken-down, old animals, were quoted at \$75 to \$100 each, and fancy saddle and carriage animals sold at \$300 to \$400 each.

Dressed Hogs.—Abattoir-dressed, fresh-killed hogs were quoted at 10½c. to 11c. per lb., while country-dressed ranged from 9½c. to 10½c. per lb. for light, and 9c. to 9½c. for heavy.

Poultry.—The market for turkeys was rather firmer than at Christmas, and dealers were quoting 17c. to 19c. per lb., wholesale, while best chickens were 14c. to 16c., with some as low as 12c. Ducks sold at 13c. to 15c., and geese at 11c. to 13c., while fowl ranged from 10c. to 12c. per lb. Poultry was cheaper than for years during the holiday period.

Potatoes.—The market was if anything easier, and dealers quoted Green Mountains in car lots, ex track, at 55c. to 60c. per bag of 90 lbs., single bags being 70c. to 75c. This was unusually cheap for potatoes.

Honey and Syrup.—The market was unchanged. Maple syrup was quoted at 60c. in small tins, up to 80c. in 11-lb. tins. Sugar was 9c. to 10c. per lb. White-clover comb honey was 16½c. to 17½c. per lb.; extracted, 12c. to 13c.; dark comb, 14½c. to 15c., and strained, 7c. to 8c. per lb.

Eggs.—Fresh eggs were quoted at 55c. to 60c., and were scarce. Selected cold-storage were 31c. to 32c. per dozen; No. 1 cold-storage stock were 29c. to 30c., and No. 2, 25c. to 26c. per dozen.

Butter.—Choice September Creamery was quoted at 29½c., and fine at 29c. Seconds were 27½c. to 28c. Some quote at rather lower figures than these. Ontario dairy was 24c., and Manitoba was 23c. per lb.

Cheese.—September Ontario cheese was 15½c. to 15¼c. per lb. for either white or colored, and October makes was 4c. below these figures. Eastern cheese was 4c. to ½c. below Westero.

Grain.—Ontario No. 2 white oats were quoted at 53½c.; No. 3 at 52½c., and No. 4 at 51c. per bushel, ex store. Holders of Canadian Western were asking 59½c. for No. 3; 58½c. for No. 1 feed, and 57½c. for No. 2 feed.

Flour.—Ontario patents were \$6 per barrel in wood, and straight rollers were \$5.50 to \$5.60, bags being \$2.70. Manitoba first patents were \$6.70; seconds being \$6.20, and strong bakers', \$6 in put.

Millfeed.—Bran was still \$25 per ton in bags; shorts, \$27; middlings, \$30 including bags. Mouille sold at \$35 to \$36 per ton for pure, and \$31 to \$32 for mixed.

Hay.—No. 1 pressed hay, Montreal, ex track, was \$20.50 to \$21 per ton; No. 2 extra was \$19.50 to \$20, and No. 2 was \$18.50 to \$19.

Hides.—Beef hides have advanced an-

other ½c., and are likely to go higher. Prices were 17c., 18c. and 19c. for Nos. 3, 2 and 1, respectively. Calf skins were 16c. and 18c. for Nos. 2 and 1, respectively. Sheepskins were also higher, at \$1.50 each. Horse hides were steady, at \$1.50 for No. 2, to \$2.50 each for No. 1. Tallow was 6c. per lb. for refined, and 2c. to 2½c. for crude.

### Buffalo.

Total live-stock receipts at Buffalo for the year 1914: Cattle, 241,715; hogs, 1,568,270; sheep and lambs, 1,081,240; calves, 111,200.

Cattle trade opened for the year with a good demand, and \$9 top on steers. August showed the highest price of the year—\$10.10—with Canadas during this month reaching up to \$9.75, the highest price in the history of the yards for Canadian cattle.

Buffalo maintained its position as being the highest calf market in the country during the year 1914—\$13.50 per cwt., standing as the highest price in the history of the local yards, this figure being reached during January, February, August, September, and November.

Hog trade for the year 1914 proved quite satisfactory. Receipts were somewhat lighter than for the preceding year, but this fact is explainable on account of the general scarcity of hogs, and also for the reason that the dreaded foot-and-mouth disease made its disastrous appearance during November—one of the heaviest months during the packing season—and stopped completely, for a time the movement to market.

Lightest year for sheep and lambs at Buffalo for over seven years. Reasons for the dropping off in supplies are easily explained. Primarily, the high price of Western lambs for feeding purposes in the States which Buffalo draws largely from, and further, for the reason that some of the large feeders were not altogether pleased at the range of prices the preceding year and shifted to feeding other stock. This was practically the case all over the country, all leading marketing points showing lighter receipts this year than last. The six leading Western markets for the year showed practically 12-500,000 head, as against 13,250,000 for 1913.

The past year, by reason of the lighter supplies and strong demand, the big packers became competitors of the feeders, by taking lambs for slaughter that were no better than feeding kinds.

Cattle.—Receipts last week were 2,025 head, and market was 25c. to 50c. higher. Best shipping steers, \$8.85 to \$9.50; best yearlings, \$9.25; good all round demand. Quotations:

Shipping steers—Choice to prime, \$9 to \$9.50; fair to good, \$8.50 to \$8.85. Butchering steers—Choice heavy, \$8.50 to \$8.75; fair to good, \$8 to \$8.25; best handy, \$8.25 to \$8.75; common to good, \$7.25 to \$8; yearlings, \$8 to \$9. Cows and heifers—Prime, weighty heifers, \$7.75 to \$8; best handy butcher heifers, \$7.25 to \$7.50; common to good, \$6 to \$7; good heavy fat cows, \$6.50 to \$7; good butchering cows, \$5.75 to \$6.25; medium to good, \$4.75 to \$5.50; cutters, \$4.50 to \$5; canners, fair to best, \$4 to \$4.25. Bulls—Best heavy, \$7 to \$7.50; good butchering, \$6.25 to \$6.75.

Hogs.—Trade showed considerable improvement last week. Monday, prices were jumped a quarter to thirty-five cents, and the next three days values stood mostly a dime higher than Monday. Bulk of the good hogs on the opening day of the week moved at \$7.25, with some bringing \$7.30 and \$7.35. Yorkers sold mostly at \$7.30 and \$7.35, and the lights brought up to \$7.50. Tuesday the majority of the good hogs brought \$7.35, lights ranging from \$7.40 to \$7.60, and Wednesday and Thursday values were but little changed. Fifteen values of Canadian hogs were on Monday's market, majority of which were light, and they sold from \$7.35 to \$7.50. Roughs ranged from \$6.25 to \$6.50, and stags \$6 down. Receipts the first four days last week totalled 27,160 head, being against 50,750 head for the first four days the previous week, and 18,400 head for the same period a year ago.

Sheep and Lambs.—Approximately 17-200 head were marketed the first four days last week, as against 21,400 head for the first four days the week before, and 17,600 head for the corresponding

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 President

HUME CRONYN  
 General Manager

days a year ago. Top handy lambs the first four days the past week showed a range of from \$9 to \$9.15, and culls went from \$8 down.... Weighty lambs were hard sellers, kinds averaging around 90 and 95 pounds going from \$8.50 to \$8.75, while heavy ones, kinds weighing around 110 pounds and better, sold down to \$7.25. Sheep were a quarter higher the past week, ewes selling from \$5 to \$5.75, as to weight, heavy ones moving mostly at \$5, and choice wethers showed a top quotation of \$6.25.

Calves.—Last week opened with top veals selling at \$10.50, and the next three days prices were considerably higher, Thursday's sales on tops being made at \$12.50 to \$12.75. Cull grades the third and fourth days of the week brought up to \$10, and common fed calves were ranged as low as \$4. Receipts the first four days the past week totalled 725 head, first four days the week before there were 1,374 head, and for the same days a year ago the run figured 725 head.

### Chicago.

Cattle.—Beeves, \$5.50 to \$8.85; Western steers, \$5 to \$7.80; cows and heifers, \$3 to \$8.10; calves, \$7.50 to \$11.

Hogs.—Light, \$6.90 to \$7.35; mixed, \$7 to \$7.40; heavy, \$6.95 to \$7.40; rough, \$6.95 to \$7.10; pigs, \$5.50 to \$7.20; bulk of sales, \$7.15 to \$7.35.

Sheep and Lambs.—Sheep, native, \$5.90 to \$6.80; yearlings, \$6.90 to \$8; lambs, native, \$7 to \$8.85.

### Gossip.

DATES TO REMEMBER.

Eastern Ontario Dairymen's Association Convention, Peterboro, January 6 and 7, 1915.

Western Ontario Dairymen's Association Convention, St. Thomas, January 13 and 14, 1915.

Ottawa Winter Fair, January 19, 20, 21 and 22, 1915.

Live-stock Association meetings, Toronto, February 1st to 5th, inclusive.

Experimental Union, Guelph, January 11, 12 and 13, 1915.

SOME SHORTHORN SALES.

In some recent correspondence with Mitchell Bros., of Burlington, Ont., they write us as follows regarding some of their recent Shorthorn sales:

"To F. W. Ewing, Elora, Ont., we have sold Escana Ringleader, the first-prize senior bull calf at the Canadian National, 1914. His dam is an imported

fourteen-year-old cow, which has been a consistent producer of good ones. She is also dam of Bandsman's Commander, first-prize senior yearling at Toronto. Geo. Gier & Son, Waldemar, have purchased Escana Champion, the first-prize junior bull calf at Toronto. His dam is an imported Broadhooks heifer, sired by the noted Bandmaster, a first-prize winner at the Royal Show. Escana Hero, also a winner at Toronto as a senior calf, has gone to J. F. Osborne, Newcastle. He is a Cruickshank Butterfly from one of our best cows. To Thos. Cutting, of Pottageville, we have sent a good show-bull calf out of a Cruickshank Orange Blossom dam. The above-mentioned calves are all sired by Right Sort. Eugene Rittenhouse, Byng, Ont., has purchased a blocky, stylish bull, by Newton Friar (imp.). Reuben Waite, Colbourne, Ont., has also procured a good, thick two-year-old heifer from imported sire and dam, and E. Harbottle, Lowville, has also purchased a very thick, low-set bull, by Newton Friar. Right Sort and Raphael are both in fine form, although they were in the pasture all fall. We never before had so many show prospects, both bulls and heifers, calves and yearlings. Visitors are welcome at our farms whether they wish to purchase or not."

LIST OF SALE DATES CLAIMED.

Jan. 20, 1915.—A. Kennedy & Sons, Paris, Ont.; Holsteins.

Jan. 26, 1915.—Victoria Pure-bred Stock Association, A. A. Knight, Lindsay, Ont., Secretary.

Jan. 27, 1915.—Brant District Holstein-breeders' Club, N. P. Sager, St. George, Ont., Sec.-Treas.

Feb. 3, 1915.—The great Canadian Shorthorn sale, Union Stock-yards, Toronto, Robt. Miller, Stouffville, Ont., Manager.

Feb. 9, 1915.—Southern Ontario Consignment sale, 80 head of Holsteins, at Tillsonburg, R. J. Kelly, Culloden, Ont., Secretary.

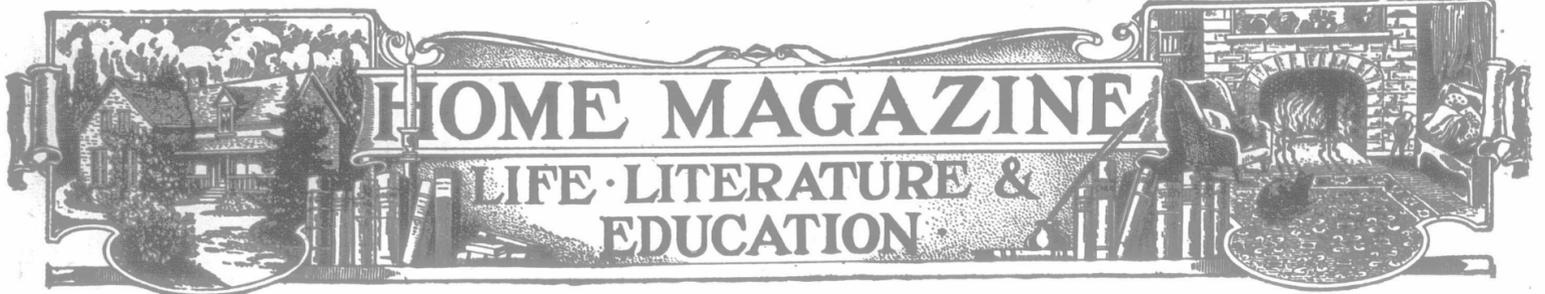
Feb. 10, 1915.—East Elgin Holstein-breeders' Consignment sale, at Aylmer, Gadon Newell, Springfield, Secretary.

Feb. 11, 1915.—Annual Norfolk Holstein-breeders' Club sale, W. H. Cherry, Hagersville, Secretary.

Feb. 12.—J. D. McArthur, North Georgetown, Que.; Ayrshires.

March 3, 1915.—Annual Provincial Sale of pure-bred stock (beef breeds), at the Winter Fair Building, Guelph, J. M. Duff, Guelph, Secretary.

March 24, 1915.—Oxford District Holstein-breeders' Club, W. E. Thomson, Sec.-Treas., Woodstock, Ont.



### An Invoice of Self.

Let's get inside you and snoop around, and invoice a little while,  
 And see if it's doing you any good, this living year on year.  
 Let's find if you've changed for the better as the seasons marched in file;  
 If things once dear aren't cheaper, things once held cheap aren't dear.

One time you lived for what you could get of glory and praise and pelt;  
 Once you were even so small as to waste a thought on saving your soul.  
 But now, if you've grown, you've begun to see your neighbor as soon as yourself;  
 And now, if you've grown, you're too deep in the game to waste much thought on the goal.

The man you hated ten years ago—don't you love him a bit to-day?  
 For haven't you learned his viewing point and found the fault in your own?  
 If occupations like these have busied you on the way,  
 This living you've done has not been vain—you've grown, my lad, you've grown.

—Strickland Gillian.

### Travel Notes.

(FROM HELEN'S DIARY.)

Bern, Switzerland, Oct. 25, '14.

I wish it wouldn't rain every market day. But it does. Regularly. Never falls. If it is raining hard and you see lots of dog-carts on the street, you may bet your last dollar that it is either Tuesday, Thursday or Saturday. It is most discouraging weather for a person who is eager to get photographs of market scenes—and dogs, especially the dogs; not the pampered pets of the parlor, but the dogs that earn their living by hard work. Hundreds of them come to town every market day. Most of them are of the St. Bernard breed, big, handsome, intelligent-looking animals, active and strong, regular canine Samsons. They haul heavy loads in from all the country roundabout, and although the roads are fine, the land is all ups and downs, which makes hard pulling for the dogs—and their owners, for they always work together.

One day when I was out dog-hunting with my camera I saw a woman and two splendid dogs harnessed to a milk-cart. I tagged around after that cart for two mortal hours, but everything was against me. Just at the propitious moment when I was about to pull the trigger, so to speak, something always happened: people would stand in front of me, or a wagon would drive past, or a small boy would stand and stare right at the lens, or a mean-spirited cloud would obscure the sun, or the woman would disappear with a milk-can and the dogs would flop down on the road and go sound asleep. It was enough to irritate a saint, and I am no saint.

Weather seems to make no difference whatever to the Berner market-women. They never seem to suffer from cold feet or drooping spirits, but sit placidly among their cabbages and carrots from early morn till dusk, even in the chilliest kind of a drizzle. Of course, they dress very warmly, and wear heavy leather, felt-lined shoes with wooden soles about two inches thick. But they seldom wear anything on their heads but their natural hair, and often they have not much of that. They pay no heed to a little shower, but if the rain comes down in buckets, they hoist their umbrellas and continue to smile. A good deal of the

time they knit, and quite often they hob-nob together over a steaming pot of coffee brought from a near-by restaurant.

The younger generation of Swiss in Bern seem to be bare-skin mad. In their out-door athletics they wear next to nothing. On the lowlands by the river there are huge, open-air bathing establishments for men and women, and connected with them are protected promenades and open fields for sun and air baths. The swimming-ponds are immense, a branch from the river supplying the water, the current of the Aare itself being too swift and the water too cold for bathing. But they say that even in the swimming pond the temperature of the water is 57 degrees Fahrenheit. Pretty chilly, I think. But an icy dip has no terrors for the hardy Swiss.

The young men and boys cultivate the sun and air fad to such an extent that they discard their clothes almost entirely in some of their field sports. I watched them playing a kind of football the other day. I was on one of the high bridges, and they were on the meadow below. Their sport costume consisted of nothing, with very abbreviated trunks and sandals. Some of them did not even wear sandals. They were all bronzed from exposure, and although it was a cold and sunless October day, they seemed to be quite comfortable without their clothes. Not far from our hotel there is a high school for boys. Every day after school the boys exercise in the playground. Clothes are dispensed with as much as possible—everything except knee-pants and braces being hung on the fence. They evidently start the bare-skin fad young in Switzerland. They ought to make good soldiers.

There is a cadet regiment in Bern connected with the public schools. Every Saturday they have field drill and practice target shooting, and about five o'clock in the afternoon march out and disband. It is quite a delight to

he keeps it. I hope the German eagle will never get its claws in this little mountain republic.

At the beginning of this war the Swiss feared an invasion from the Italian side. All the mountain passes and tunnels were strongly guarded. The St. Gotthard tunnel was mined, and preparations made to blow up the railroad approaches if necessary. But as Italy continued neutral the scare died out.

It is interesting to watch the crowds around the bulletin-boards here. They read, but make no comment. Whatever they may think in private, they maintain a neutral attitude in public. The newspapers harangue about it continually, the parsons preach it, and the Government issues warnings against partisanship. But all the same, German-Switzerland seems to be pro-German, and French-Switzerland pro-French.

In Switzerland there are three distinct races: German, French and Italian, and all the public notices in cars and buildings, etc., are printed in these three languages.

Although Switzerland is a Republic, the Government is quite different from other Republics. The country is divided into twenty-two cantons, and each canton sends two representatives to the States' Council. The Federal Assembly consists of the States' Council representing the cantons, and the National Council representing the people—one member for every 20,000 men. These two houses elect the Federal Council of seven members. They are elected for three years. There is a president, but he only serves one year, and is merely the chairman of the Federal Council.

The situation of the Government buildings is superb. They are on the heights above the river, and command a magnificent view of the river valley and the hills and the snow-mountains. From the opposite side of the river the effect of this huge pile of buildings is most imposing. The fashionable promenade in Bern is the terrace on the river front of

found guilty of using Switzerland as an intermediary for the transmission of State secrets. This is to prevent Switzerland from being used as a center for spies.

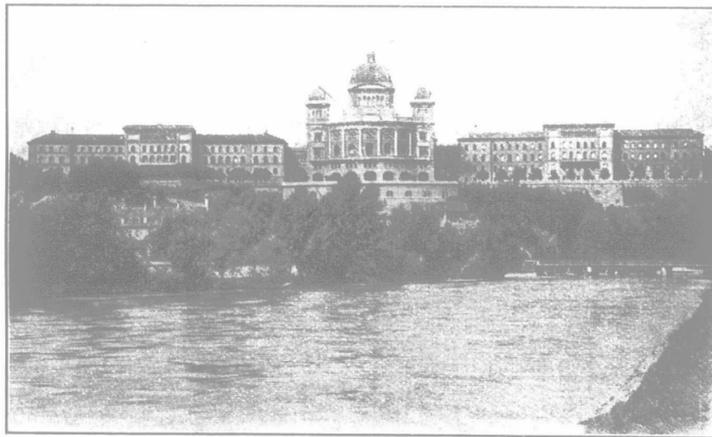
November 10th.

When we were in Wiesbaden last winter we lived in a pension kept by two ladies, one of whom was English and the other German. They had been associated in the business many years, and were devoted friends. With them lived a beautiful young Belgian girl, a relative. The English lady had lived in Germany for nearly thirty years. This summer she went to England for her vacation, and was there when the war broke out. She has never been able to return to Wiesbaden, or even to have any direct communication with her German partner there. The other day I received a letter from her, and this is what she says:

"When Germany declared war on Russia, I applied at once for my passport, but did not obtain it, war having then broken out between England and Germany, and no English allowed to enter Germany. An English gentleman returning from Wiesbaden brought me a very sad letter from poor Frau B— (her partner). Both her brothers and her nephew had been called to arms and she was quite alone, and since then the Government had taken 25 per cent. of all deposits in the bank,—of mine as well as the others.

"On the evening of August 7th a policeman appeared at the pension and announced that all foreigners must leave the city by nine o'clock the next morning. Mr. Murray had returned to Wiesbaden for a second course of treatment, which was absolutely necessary to save his sight. Dr. M— went to the authorities and did all in his power to obtain permission for Mr. Murray to remain, but all in vain. The poor man went to Frankfurt to get his permit, and from there travelled with a deaf and nearly blind old man to England. His daughter wrote me an account of that terrible journey of eight days. At Cologne they were marched through the town by soldiers, followed by a crowd of people shouting "Englische schweine" (English swine). Then they were locked up in a sentry-room and told they would be shot the next morning. But next day they were sent another stage of the journey, and at last reached England. Poor Mr. Murray is now hopelessly blind. Isn't it tragic? If they had only allowed him to remain his sight could have been saved.

"Poor little Julie took refuge in Frankfurt so as to be near her uncle in Mainz, but she soon had to leave there. So completely are the German people kept in the dark with regard to the war that Julie's uncle put her on board a steamer at Mainz and told her to go to her people in Brussels, as Belgium was quite safe, the German soldiers were only marching through peacefully. On board the steamer were about ninety Americans, and Julie passed through with them. At Rotterdam she heard the truth, and was advised to go to England, as in Belgium no woman was safe. After a journey of nine days she arrived in London with just a little money in her pocket, and telegraphed me. She is now with us here, and we are glad to have her. She is such a dear child. We are busy making warm clothing for the refugees. Julie goes with a French lady to help the Belgian wounded, few of whom speak English. How terrible is this war! We have so many relatives and friends at the front. Poor little Julie cannot obtain any information about her people in Belgium. I fear they may have been butchered by the Germans, like so many others. Of



The Government Buildings in Bern, Switzerland.

the Government buildings. It is called The Promenade.

There are a great many refugee Belgians in Switzerland, but they are mostly in French-Switzerland. A great deal of knitted stuff has been sent to the soldiers of the fighting nations, but just lately the Swiss Government has made a law prohibiting the exportation of woollen goods out of the country. Special permits, however, can be obtained in some cases. There is also a new law concerning the sending of information from one alien country to another through the medium of the Swiss post. A heavy fine is imposed on any person

course, I don't believe all the awful stories told in the papers, but I must believe what is told me by my own Belgian relatives and friends who have suffered and been eye-witnesses of the most terrible atrocities. The son of a friend of ours here was wounded on the battlefield, and while lying helpless a German officer cut off his right hand, saying, 'I'll teach you to fight!' There are nine little Belgian children here, refugees, whose hands were cut off by German soldiers. A friend of ours, a doctor who was invalided home, says the Germans are fiendish barbarians, and stoop to any dishonor to gain an advantage. He saw dozens of women and children dead by the roadside, not shot, but killed by bayonet thrust. The accounts given by the refugees make one quite sick.

"When the war began, the Kaiser made a public speech in which he said that if Belgium dared to resist him he would wipe it off the face of the earth. And yet he pretends that his heart bleeds for Louvain."

### Keep Up the Morale of the "Rural School" Teacher.

(By Percival B. Walmsley.)

The Secretary-Treasurer told the rural trustee that he had at last secured a teacher. Shortly afterwards the latter listened to a mother admonishing her son, "You will have to mind, now, Jimmy, for she is Scotch, and will keep you in order. Those Scotch teachers don't mind using the stick." Whereat Jimmy threw back his head with a defiant air, and said, "I don't care. I'm not afraid of any Scotch lassie!"

It seemed to the rural trustee a very wrong way of dealing with the boy, and not very promising for the future relations of teacher and scholar; in fact, something like the conflict between Austria and Serbia. He felt sorry for the new teacher and the boy. Like most rural trustees he had little spare time. He could not go down to the school and introduce the new teacher and smooth things down. And she was to be there next day. He had two small boys who went to the school, and he realized something of the perpetual fight he and their mother had against the bad habits and bad tempers of childhood, and against the individual tendencies towards evil inherited by every child from his long line of ancestors, often brought out more strongly when excited by the company of other children. The school teacher was certainly in the firing line. Could she be encouraged, and made to feel that, at any rate, she could depend on trustees and parents as allies and not enemies? He bethought himself of writing something to be read out to the children, a sort of proclamation which would arouse latent good qualities instead of evil ones. It ran thus:

"To the Boys and Girls of School No. —:

"Just as you turn over to a new page in your scribbles, so now you are turning over a new page in your lives. There is nothing written on it yet. A new school term lies before you. Are you going to do your best with this fresh page? Mr. Blank (the Sec.-Treas.) and the Trustees have been to much trouble to get the best teacher they could for you. Here she is, ready to teach you all she can. We want you to learn all you can.

"The time of your life spent at school may seem long to you, but it is really very short. You will want all the knowledge you can gain, for use later on, if you are to be useful men and women. It costs your father a good deal of money to provide this education for you. Don't let it be wasted money. If you waste your time, you are wasting your father's money, just as much as if he were to give you a dollar and you were to go and throw it in the lake.

"We want you to be orderly and obedient. Your parents cannot take time to teach you yourselves, and the school teacher is in their place. If you disobey her, it is the same as disobeying your father and mother.

"You are very fortunate to live in a peaceful country. Many little boys and girls in Belgium and France not only have no schools to attend, but have had to leave their homes, their gardens and

everything, because of the German soldiers, and have had to walk many miles to other towns to get safety. Their homes have been burned and their gardens destroyed, and many have had their fathers and mothers and their big brothers all killed.

"Your teacher will show you on the map where these things have been happening.

"Remember another thing. Some day when you are older, some of you boys and girls will have to leave your homes and go away somewhere else to work for your living among strangers. You will

of keeping up the morale of the rural-school teacher ought to be more considered, and turned up the word in his dictionary, where he found, "Morale (mor-al), state of mind as regards hope, zeal, etc.; used also with reference to a body of men, as an army."

If it is important with reference to a body of men, it is equally so with the mind of a woman, fighting her campaign alone,—a never-ending campaign, lasting as long as she remains a teacher. We glibly say, "Peace hath its victories no less renowned than war," but we are apt to forget that victories can only come



Typical Street Scene in Bern. Woman and two dogs pulling milk-cart.

not like it at first, and may feel very sad. Everything will seem different from what it is at home.

"Remember that your school teacher is away from her home. Try and make her feel at home here. Be to her as if you were younger brothers and sisters. Help her all you can, and I am sure she will help you all she can.

"People often speak of 'having the time of their lives.' School-time is really the time of your lives. Do your duty to yourselves, your parents, and your teacher, and it will then truly be 'the time of your lives.'

"With best wishes to teacher and scholars for a happy, busy term.  
Yours very truly,"

He wrote a little introductory letter with this to the school teacher and gave

after well-planned campaigns. Let us keep up the morale of those at the front.

## The Windrow.

THE BRITISH ARMY.

The nucleus of the British army was formed as far back as before the Norman Conquest, when all freemen between the ages of fifteen and sixty were bound to bear arms as one of the conditions of holding land. No body of men, however, was required to serve out of its own county except in case of invasion, when it might be sent to any part of England but not out of it. After 1066 the feudalized military system of the Normans was introduced, each earl and baron being required to



How Milk is Delivered in Bern.

it in a sealed envelope to his eldest boy to give to the new teacher.

A few days later he overheard her saying to someone: "I have been getting on nicely. There was one boy who would give me a lot of trouble, people said, but he has been all right." Later on she told the trustee that she had read the message to the children on the first occasion when most were present, and said that the letter certainly made her feel at home in her new school. And the rural trustee, with his mind running on war terms, thought perhaps the question

arm and horse their retainers at their own expense for the King's service. In the time of Henry I. a law was made which enabled a man to provide knights to take his place in time of war so that he might be excused from personal service, and in the reign of Henry II., a money contribution was allowed in lieu of military service, all moneys so received being used to pay hired mercenaries who were willing to fight out of England if required.

As time went on, the system gradually obtained of having only a part of the

able-bodied men in each county give military service, the rest providing for their upkeep, though certain men were selected to serve in person at the expense of the county,—the famous "Trained Bands" of the seventeenth century. It was not, however, until the Restoration, in 1660, that the Standing Army was permanently established. At that time Charles II. retained certain troops which had served him, and added others, for garrison duty, from Tangiers and other abandoned places abroad.

In 1640 all compulsory service was abolished, and impressing into service; henceforth, was only resorted to in case of certain persons of "unsettled mode of life" and in especial cases.

The English military force now became divided into the Regular Army and the Militia for recruits, from which the Standing Army has been largely formed. From 1829 to 1847 the term of enlistment was usually for life; subsequently Enlistment Acts were passed limiting the time to ten or twelve years, with opportunity of re-enlistment, that of 1870 providing that a man should serve so long on the colors and so long as a Reserve. In this way a large Reserve has been created. Up to 1881 the infantry were numbered and known as Regiments of Foot, but after that year each regiment (two or more battalions) received a territorial title and was allotted to a territorial area, one battalion of the territory being on foreign service as required, and the other at home to act as feeder to it.

### THE MILITIA.

In 1663 the "Trained Bands," except in the city of London, were disbanded and the Militia organized in their place. In 1810 the last Militia Ballot was held, although the Government may still use it if necessary. In 1852, by a Bill introduced by Lord Derby, the system of voluntary enlistment was established. The Militia, it may be noted, when raised, was liable to serve in any part of the United Kingdom, but not out of it. In 1908, however, all the units of militia were taken over as Special Reserve, divided into two sections, (A) one consisting of 4,000 men liable to service in any part of the world, (B) All not in Section A, liable for service anywhere, but only to be called up for service by Royal Proclamation in case of great emergency.

### YEOMANRY AND VOLUNTEERS. (NOW TERRITORIAL FORCE.)

At first, volunteers were accepted individually in aid of the ballot for the Militia, but later whole companies grew up as a part of the Militia. Besides these Military Volunteer Companies, other Volunteer Corps were raised, chiefly in Scotland, known as "Fencibles," which, on condition of having rendered assistance, were exempt from service in the Militia, but paid at Regular Army rates. In 1802, when Napoleon threatened England with invasion, another Act was passed to authorize the raising of Volunteer and Yeomanry regiments. Under this Act the Yeomanry, then a force of volunteer cavalry, served up to 1901. They were left free to enlist as many as they chose, but were liable to be called upon for service in any part of Great Britain in case of invasion becoming imminent.

By an Act passed in 1901 the Yeomanry were practically placed upon the same footing as the Militia, and in 1907 and 1908 both Yeomanry and Volunteers became merged in the Territorial Forces, although the Volunteer cavalry still retain their title of Yeomanry.—Abridged from "Britain in Arms," by F. A. M. Webster.

### SIGHTLESS AUDIENCE "SEES" NEW YORK PLAY.

Almost 1,300 blind persons, ranging

from boys and girls of tender years to aged men and women, attended a special performance of "Under Cover" at the Cort Theatre, N. Y., recently, and enjoyed to the utmost what was to them a rare experience.

It was surprisingly like an everyday performance before a normal New York audience. As far as the actors and actresses were concerned, there was no slighting or abbreviation of either make-up or costumes, and, if anything, the players exerted themselves more than usual. The same scenic equipment was used as at a regular performance.

There was, however, a specially prepared programme in "raised type" for the sightless.

William Courtenay, who won the heart of everybody, declared to a reporter that it was the most wonderful audience he had ever played to.

"They are amazing," he said. "You know all actors soon learn the psychology of an audience and can tell when they first go on the stage how they are going to be received. But we don't have to study these people—they hand it right to you. They get points nobody else gets." Next to Mr. Courtenay, the leading lady, Miss Cahill, was the favorite, and one little blind girl said, "She was beautiful to look at."

There were ten blind people in the theatre between the ages of 72 and 84 who had never been inside a theatre before. Some of the younger folks were escorted behind the scenes to "see" the scenery set.

The dramatic reviewers of New York under their new policy of kindly comment ascribe a triumph to the entertainment.

## Hope's Quiet Hour.

### Songs in the Darkness.

Why art thou cast down, O my soul? and why art thou disquieted in me? hope thou in God: for I shall yet praise Him . . . in the night His song shall be with me, and my prayer unto the God of my life.—Ps. xlii: 5, 8.

"As through the world at night I went,  
I heard a sad and mad lament.  
On ev'ry cheek were flowing tears;  
In ev'ry heart were growing fears.  
But as I went I bravely sang,  
For in my heart brave music rang.  
I sang of joy to joyless men;  
I cried, 'Rejoice, rejoice again!'  
When first they heard my cheery voice,  
Men mocked me with my word 'rejoice.'  
'Despair is king,' they fiercely said;  
'Let be, let be! all hope is dead.'  
They scoffed at me; at them I smiled;  
For savage words I gave them mild.  
And on I sang as on I went;  
'Relent, sad hearts,' I said, 'Relent!'  
I spoke to Hope: she said, 'I'm here.'  
I spoke to Joy: she said, 'I'm near.'  
And then together sang we three  
As though no man had wailed 'Let be!'  
Throughout the world our song was heard,  
And joy and hope in all hearts stirred.  
And ere I reached the Morning Land,  
My song became a chorus grand."

That is a wonderful psalm—the 42nd. It reveals the fact that the sweet singer of Israel was passing through a time of great affliction. "Tears have been my meat day and night," he says, "while they continually say unto me, Where is thy God." His soul is panting after God, as the thirsty deer pants after cool streams of water, and yet even God seems to be against him. All His waves and waterspouts threaten to overwhelm him. I say, it is a wonderful psalm, for though God seems ready to slay the psalmist, yet his love and trust are unshaken. Even in the thick darkness his song of praise goes up, and his prayer unto the God Who is Life to his soul. The reproach of His enemies, "Where is now thy God?" is unanswered. He cannot explain to them the secret of the Lord, yet in the night his song rises to the Living God.

If we can only be glad when everything is bright our gladness will help the world very little. There is much sorrow in the world to-day, and we have no right to add to it by being gloomy and dis-

trustful. We all create a certain soul-atmosphere. Let us see to it that the atmosphere we are creating, in these dark days, may help others to thank God and take courage. We can rejoice in the radiance of God's wonderful Love, if we keep our eyes turned heavenward. It is possible to walk with Him in such a wonderful fellowship that our hearts burn within us, not only when He talks with us by the way, but even when He demands our strongest trust by His silence. We may know that our Lord is beside us, even when we cannot feel His hand nor see His face, even when we cannot explain our confidence to those who say, "Where is now thy God?" They may say it in mockery or in hopeless despair, as the prayers of millions rise night and day for peace, and God makes no sign of hearing.

Strange, and often very hard to bear, is the silence of Divine Love. Sometimes, like Elijah, we can hear the "still small Voice" speaking to our souls, but there are dark hours in life when it seems as if God were paying no attention to our prayers, when we cannot feel His Presence, and there is no outward sign that His promises about hearing and answering trustful prayers can be depended on. Of course, this is often our own fault. God has declared, over and over again, that He will not answer the prayers of those who are not trying to obey His laws. He has also made the answering of our prayers largely dependent on our own faith. But, when we "agree together" to ask for the lifting of this terrible cloud that has brought a thick darkness on all the earth, when we know that it is God's will that the nations should live in peace with each other, and yet our prayers are apparently unheeded, what are we to do? Of course, we are to pray and trust on. If we only trust God in the sunshine we are not trusting Him at all.

If you are in the darkness of hopelessness, look at St. Thomas and learn of him. For more than a week he believed that the Light of the world had been utterly extinguished; and there was no song in the night for his despairing heart. But it was really his own fault that he was kept in darkness longer than the other Apostles. Study the record, and you will see that when the others were gathered together on Easter Day he stayed away. When the Light of the world scattered the darkness of the ten Apostles, St. Thomas missed the joy by absenting himself from public worship. The next Sunday he joined the little band of worshippers—hopeless though he was—and all his doubts were cleared away. If you can't find God's light in the darkness, it may be because you don't go to Church, don't study your Bible, don't pray trustfully and perseveringly.

God is the Ruler of the world. He does not put that tremendous responsibility into your hands or mine. He is able to make even this terrible war "work together for the good" of His children. If only we could always remember that He is not a God far off, but one near at hand; that He is here now, smiling encouragement into our eyes and holding out a strong hand to steady our stumbling steps in the darkness, how different life would be. The weary, spiritless tones would go out of the voice, the peevish lines would vanish from the face, the anxious ache of the troubled heart would change to sweetest peace and joyful confidence. It is such a comfort to put any matter that troubles us into strong, safe hands, and roll the burden of care off our weak shoulders. Is not that what God has told us to do? He wants us to cast all our cares on Him and be happy. If we are burdened with care it must be our own fault. Pain, trouble and sorrow, He sometimes lays upon our shrinking hearts—if life were always easy we should never grow strong and brave—but He never lays anxiety upon us. That heavy burden is one we take up of our own accord, against the express command of our Lord. The present difficulties and troubles are quite enough for us—He has said—quite as much as we can bear today. It is entirely against His will when we burden ourselves with the possible troubles of the future.

The present is God's gift to us, and it is full of opportunities. Perhaps a difficulty lies in the path. Then you have the opportunity of growing strong in

faith, courage or patience. Or the watching Master may slip into your present moment the opportunity of ministering to Him. It may be only to pick up a child and kiss its laughing lips, or to read to an old grandmother, or to write hopefully to someone whose boy has "gone to the front."

If you spend each day with Christ, if you recognize Him in every man, woman and child you meet, and spring eagerly to welcome Him everywhere, your life will be a daily song which will gladden all who know you, and make them believe in the God you serve.

If we are walking with Christ, trusting Him when we cannot understand, the touch of His hand in the darkness will always bring sweetness and the sense of security into our hearts. We may not be able to see the reason for the present time of darkness, but we may live through it fearlessly if we can say with David: "The LORD is my rock, and my fortress, and my deliverer; the God of my rock; in Him will I trust; He is my shield, and the horn of my salvation, my high tower, and my refuge, my Saviour, Thou savest me from violence."—2 Sam. xxii: 2, 3. How He multiplies the images which speak of God as a sure Refuge in time of war!

"In that Stronghold salvation is:  
Its touch is comfort in distress,  
Cure for all sickness, balm for ill,  
And energy for heart and will.  
Securely held, unflinching,  
The soul can walk at ease, and sing,  
And fearless tread each unknown strand,  
Leaving each large thing, and each less,  
Lord, in Thy Hand!"

DORA FARNCOMB

### Letters From Readers.

Another reader has been kind enough to send me \$2 for the needy. I shall be able to brighten many sad hearts with donations from my "paper friends" this Christmas. If the "reader" who sent me a dainty bunch of pressed flowers will let me have her name and address, I will gladly answer her letter. D. F.

### Gifts for the Needy.

Money for Christmas cheer has been pouring in from our readers this Christmas-tide. During the last ten days one reader sent \$7, one sent \$5, one sent \$3, three sent \$2 each, and three sent \$1 each. I have been given the pleasure of "passing on" your kindness in the form of Christmas baskets (well filled with food) to 14 needy families, and I also sent a Christmas donation from you to 11 sick men and women of my acquaintance, who are almost entirely without funds, and are being cared for in various hospitals and institutions. Some of these are blind or otherwise incapacitated, without hope of recovery; others are hoping some day to earn their own living.

As I saved up your donations which reached me some weeks before Christmas, it was possible to help all these people—whom I know well—and also to keep on hand \$6.50 for future use. Many people are helping the poor at this season, but later on in the winter there is certain to be great need. There is also nearly half a bag of potatoes (your potatoes) in the cellar, ready to be given out when required. When that bag is empty, I hope to get another.

This is the day after Christmas, and I have been counting up the various donations from "Advocate" readers which have been entrusted to me during 1914—the total sum amounts to \$167.10. Of this amount \$65 was sent in five-dollar donations. Several readers have twice sent generous gifts during this year, and a very large proportion of the whole sum was given anonymously.

Your kindness has brightened many darkened lives, and I thank you most heartily both for your generosity and also for your trustful confidence in me. I have tried to be a faithful steward, knowing that I am answerable to my Master and Yours.

HOPE.

### Another Christmas Gift.

Dear Hope.—Enclosed you will find two dollars, which our children are giving as a Christmas gift for some poor children. Will you kindly see that it brings some Christmas cheer to some needy little ones? It will probably reach you too

late for Christmas day, but use it as you deem best. Wishing you a happy Christmas, and hoping that the peace of God may control our hearts this Christmas-time, I am

ONE OF HIS LITTLE ONES.

The above has just reached me. I will gladly carry the Christmas gift—in the shape of some warm stockings and other clothing—to some little girls I know. There are five of them (the eldest twelve years old), and they all sleep in one bed, so keeping warm. A little brother arrived, as a Christmas gift, a few days before Christmas. HOPE.

## Fashion 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 ten cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty 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 .....  
County .....  
Province .....  
Number of pattern .....  
Age (if child or misses' pattern) .....  
Measurement—Waist, ..... Bust, .....  
Date of issue in which pattern appeared



8477 Shirred Polonaise  
34 to 42 bust.

8472 Blouse with Vest  
Effect, 34 to 42 bust.



8320

DESIGN BY MAY MANTON.  
8320 Girl's Dress, 10 to 14 years.

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8336A  
8344  
7921

DESIGN BY MAY MANTON.

8338-A Gathered Basque for Misses and Small Women, 16 and 18 years.  
8344 Plaited Russian Tunic for Misses and Small Women, 16 and 18 years.  
7921 Two- or Three-Piece Skirt for Misses and Small Women, 14, 16 and 18 years.



8489 Gown with Three-Piece Skirt for Misses and Small Women, 16 and 18 years.



9503 Dress with Four-Piece Skirt, 34 to 42 bust.



8425

DESIGN BY MAY MANTON.

8425 Child's Bath Robe, 2 to 8 years.



DESIGN BY MAY MANTON.

8480 Plain Waist for Misses and Small Women, 16 and 18 years.



8281 Two-Piece Skirt, 22 to 32 waist.

8494 Circular Skirt for Misses and Small Women, 16 and 18 years.



8105  
8441A

DESIGN BY MAY MANTON.

8105 Fancy Blouse, 34 to 44 bust.  
8441-A Circular Skirt, 24 to 34 waist.



8469A Redingote Dress, 34 to 42 bust.



DESIGN BY MAY MANTON.

8460-A Polonaise Costume for Misses and Small Women, 16 and 18 years.



8457 Raglan Kimono, Small 34 or 36, Medium 38 or 40, Large 42 or 44 bust.



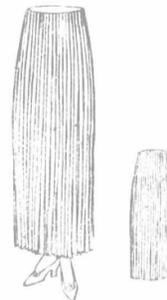
8491 Girl's Dress, 8 to 14 years.



8449 Girl's Tunic Dress, 6 to 12 years.



8458 Girl's Costume, 6 to 12 years.



8486 Accordion Plain Skirt for Misses and Small Women, On Size, 16 or 18 years.



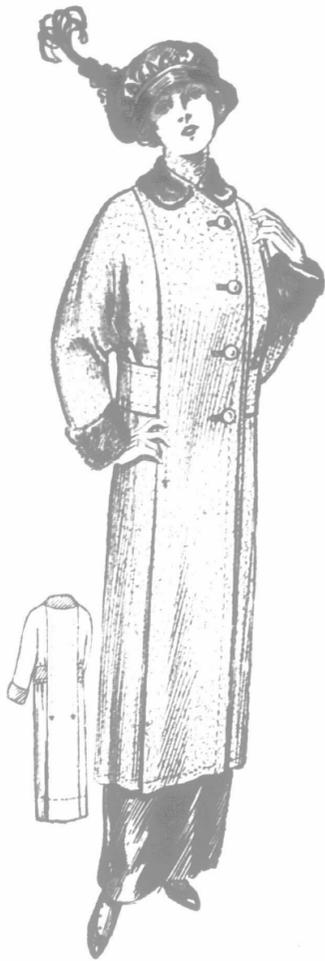
8497 Low Belted Blouse, 34 to 44 bust.



8509 Dress with Russian Tunic for Misses and Small Women, 16 and 18 years.



DESIGN BY MAY MANTON.  
8443 Basque with Gathered Tunic,  
34 to 42 bust.



DESIGN BY MAY MANTON.  
8064A Coat with Kimono Sleeves,  
34 to 44 bust.



7235 Girl's Yoke Apron,  
6 to 10 years.



8514 Work Apron, Small  
34 or 36, Medium 38 or  
40, Large 42 or 44 bust.



DESIGN BY MAY MANTON  
8459 Raglan Coat, 34 to 42 bust.  
8463 Two-Piece Skirt with Russian  
Tunic, 24 to 30 waist.



DESIGN BY MAY MANTON.  
8473 Girl's Night Gown, 8 to 14 years.

**The Belgian Refugees.**

Sir Gilbert Parker reports to America, at the request of the American Committee for the Relief of Belgium, upon the conditions he observed as near the frontier as a British subject was permitted to approach. He says he knew beforehand what most of us know who read the daily papers, but the repetition of words results in blunted effects. For even to one whose trade is the manipulation of words, the horror of what he saw, he declares, almost paralyzes expression. At Maastricht he met Belgian municipal authorities who said they had food only for a fortnight longer. But the food they had was not meat or vegetables. It was "one-third of a soldier's rations of bread for each person per day." On the day of his writing, December 5, Liege, which stemmed the tide of invasion long enough to save France and Paris, had "food for only three days." These cities hold out their hands for bread and salt. "They do not ask for meat; they can not get it. They have no fires for cooking, and they do not beg for petrol. Money is of little use to them, because there is no food to be bought with money." He proceeds:

"Belgium under ordinary circumstances imports five-sixths of the food she eats. The ordinary channels of sale and purchase are closed. They can not buy and sell if they would. Representatives of Belgium communities told me at Maastricht yesterday that the crops were taken from their fields—the wheat and potatoes—and were sent into Germany's hands. There is no work. The factories are closed, because they have not raw material, coal, or petrol, because they have no markets. "And yet war-taxes are falling with hideous pressure upon a people whose hands are empty, whose workshops are closed, whose fields are idle, whose cat-

tle have been taken or compulsorily purchased without value received.

"In Belgium itself the misery of the populace is greater than the misery of the Belgian fugitives in other countries—such as Holland, where there have come since the fall of Liege one and a half million of fugitives. To gage what that misery in Belgium is, think of what even the fugitives suffer. I have seen in a room without fire, the walls damp, the floor without covering, not even straw—a family of nine women and eight children, one on an improvised bunk seriously ill. Their home in Belgium was leveled with the ground, the father killed in battle.

"Their food is coffee and bread for breakfast, potatoes for dinner, with salt—and in having the salt they were lucky—bread and coffee for supper. Insufficiently clothed, there by the North Sea, they watched the bleak hours pass, with nothing to do except cling together in a vain attempt to keep warm.

"Multiply this case by hundreds of thousands, and you will have some hint of the people's sufferings.

"In a lighter on the River Maas at Rotterdam, without windows, without doors, with only an open hatchway from which a ladder descends, several hundred fugitives spend their nights and the best parts of their days in the iron hold forever covered with moisture, leaky when rain comes, with the floor never dry, and pervasive with a perpetual smell like the smell of a cave which never gets the light of day. Here men, women and children were huddled together in a promiscuous communion of misery, made infinitely more pathetic and heartrending because none complained.

"At Rosendael, at Scheveningen, Eysden, and Flushing, at a dozen other places, these ghastly things are repeated in one form or another. Holland has sheltered hundreds of thousands, but she could not in a moment organize even adequate shelter, much less comforts.

"In Bergen-op-Zoom, where I write these words, there have come since the fall of Antwerp 300,000 hungry marchers, with no resources except what they carry with them. This little town of 15,000 people did its best to meet the terrible pressure, and its citizens went without bread themselves to feed the refugees. How can a small municipality suddenly deal with so vast a catastrophe? Yet slowly some sort of order was organized out of chaos, and when the Government was able to establish refugee camps through the military the worst conditions were moderated, and now, in tents and in vans on a fortunately situated piece of land over 3,000 people live, so far as comforts are concerned, like Kafirs in karoo or aborigines in a camp in the back blocks of Australia. The tents are crammed with people, and life is reduced to its barest elements. Straw, boards and a few blankets, and dishes for rations—that constitutes the ménage.

"Children are born in the huggermugger of such conditions, but the good Holland citizens see that the children are cared for and that the babies have milk. Devoted priests teach the children, and the value of military organization illuminates the whole panoply of misery. Yet the best of the refugee camps would seem to American citizens like the dark and dreadful life of an underworld, in which is neither work, purpose nor opportunity. It is a sight repugnant to 'civilization.'—Literary Digest.

Two Irishmen arranged to fight a duel with pistols. One of them was distinctly stout, and when he saw his lean adversary facing him he raised an objection.

"Bedad!" he said, "I'm twice as big a target as he is, so I ought to stand twice as far away from him as he is from me."

"Be aisy now," replied his second. "I'll soon put that right."

Taking a piece of chalk from his pocket he drew lines down the stout man's coat, leaving a space between them.

"Now," he said, turning to the other man, "fire away, ye spalpeen, and remember that any hits outside that chalk line don't count."

### News of the Week

The metric system of weights and measures became the standard for drug stores throughout the British Empire on New Year's Day.

The Russian Government has ordered 20,000 saddles from Canadian manufacturers.

It has been ascertained that 201 men, out of a crew of 780, were rescued when the Pre-Dreadnought "Formidable," was sunk in the British Channel on January 1st.

Dunkirk, on the northern coast of France, has been twice bombarded by German aeroplanes during the week.

During the British aerial raid on Cuxhaven, one of Germany's latest super-Zeppelins was completely destroyed.

A great victory by the French, under General Pau, has been reported from Altkirch, Upper Alsace. From Belgium and Northern France, too, news is reassuring, and it is believed that the road to Calais has been definitely closed to the Germans. In the Eastern war zone, Austria-Hungary seems to be practically down and out, and is said to be anxious for peace. Turkey, however, appears to be making some gains in the Caucasus, having defeated the Russians at Ardahan, north-west of Kars, on New Year's Day, and at Sovchbulak in Northern Persia. Towards this point, however, British-Indian troops are advancing as rapidly as possible, and the tide may soon turn.

### The Beaver Circle

#### OUR SENIOR BEAVERS.

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

#### Soap Bubbles.

Some evening when you want a new amusement try blowing soap bubbles in new ways. In the first place you must get some new clay pipes, and then make the soap solution, as follows: Cut a piece of strong brown laundry soap, about 1 inch square, into thin shavings and dissolve it in a pint of warm, soft water. Next, add 1 tablespoonful of gum arabic, which you can get at the drug store, and stir until it is dissolved. Now add a teaspoonful of glycerin, and stir again, adding last of all a quart of very cold water. This will make a solution that will give you fine firm bubbles.

Now rub the edge and inside of the pipes with soap, and you are ready for work.

To form a chain of bubbles blow a small bubble from the pipe and throw it into the air. Then blow a second and throw it so that it attaches itself to the first; go on quickly with a third, fourth, fifth, etc.

Another pretty experiment is this: Put a sheet of glass on the table, and with a straw well rubbed with soap, first blow a large bubble on the glass. Then dip the straw in the soap solution again, insert it very carefully through the first bubble and blow a second, smaller one inside of the first. Go on in the same way until you have four or five, one within the other.

To make a bubble flower cut a white star-shaped flower from paper, and fasten it to a cork with a pin. The paper should be well soaped. Now carefully blow a bubble into the flower so that it will stick.

If it is very cold out of doors try blowing a bubble very slowly through a pipe, so that it will freeze. The colors will be very beautiful.

An interesting game is to see who can blow the largest bubble into the air. Another is to arrange an ironing-board like a football field with blocks at each end for goal posts. Each contestant tries to blow his bubbles—three for each trial—down the board and through between the goal posts.

### A Trick With Numbers.

"Mind-reading" games are popular at gatherings of young people. If any boy wants to contribute something of the sort, here is an odd law of numbers which will enable him to mystify the uninitiated.

If from any number of two or more digits you subtract the sum of the digits, the remainder will always be divisible by 9, and the sum of the digits in the remainder will be 9, or a multiple of 9. For example, take 25 as your number. The sum of the digits is 7. Subtract 7 from 25, and you have 18—which is twice 9.

Or try a larger figure—say 7985. The sum of the digits is 29. This subtracted from 7985 leaves 7956, which is just 884 times 9, and the sum of whose digits is 27, or 3 times 9.

So much for the principle. The trick consists in applying it backward. Ask some one first to choose a number; second, to add together the digits composing it; third, to subtract this sum from the original number; fourth, to drop out any one figure from the remainder, and fifth, to tell you what he has left.

By adding together the figures that he gives you, and subtracting this sum from 9, or from the first multiple of 9 that is large enough, you can at once announce the figure that was dropped out.

Suppose he says that he has 795 left. The sum of these digits, added together, is 21. This you subtract from 27,—the nearest multiple of 9 that is larger than 21,—and discover that 6 was the figure dropped out. It will take your friends a long time to find out how you perform this marvel.—Youth's Companion.

### Funnies.

Willie was struggling through the story in his reading lesson, relates an exchange. "No," said the captain," he read, "it was not a sloop. It was a larger vessel. By the rig I judged her to be a-a-a-a-a."

The word was new to him. "Barque," supplied the teacher. Still William hesitated. "Barque!" repeated the teacher, this time sharply.

Willie looked as though he had not heard aright. Then, with a timid glance around the class, he shouted: "Bow-wow!"

### Senior Beavers' Letter Box.

Dear Puck and Beavers,—As I am a reader of the letters in your Circle, I thought I would like to be a member also. I go to school very faithfully, and will be trying the entrance next midsummer, but am not sure whether they will let me through or not. I guess I will do as the people say, "If at first you don't succeed, try, try again." I was away to Toronto and Hamilton, a week at each place in the summer holidays. When I came home I went to a town about twenty miles from our place. We live twenty-five miles from the city of Toronto, and one-half mile from the village of Sand Hill. By the time Puck finishes reading this he will say it is too long, and of course that hungry w.-p. b. will be handy, and in it will go. I would like if some of the Beavers would correspond with me.

From a new Beaver, EILEEN McKEOWN, Sand Hill Peel Co., Ont. (Age 13.)

Dear Puck and Beavers,—This is my second letter to your charming Circle. As I did not see my first letter in print I thought I would write again. My father has taken "The Farmer's Advocate" for three or four years and likes it fine. I like reading the interesting letters written by the Beavers. I live on a farm. For pets I have a kitten called "Netty," and a dog called "Rover." He is a real good dog. When we tell him to fetch the cows he will go and bring them. If there are strange cows he will put them out first. I have a colt called "Star." It is a very gamey and playful colt. I have two brothers and one sister. My oldest brother's name is Matthew, my youngest is Charlie, and my sister's name is Louise. I go to school every day. My teacher's name is Miss Paris. I will close with some riddles.

Riddle me, riddle me, what is that

over the head and under the hat? Ans.—Hair.

Long legs, crooked thighs, little head, no eyes. Ans.—A pair of tongs.

Thirty white horses upon a red hill, now they tramp, now they champ, now they stand still. Ans.—Teeth and gums.

Wishing the Circle ever success and hoping the w.-p. b. is not hungry when this arrives.

Yours very truly, LILLIAN MAY ARCHER, Bradford, Ont. (Age 11 yrs., Sr. III.)

Dear Puck and Beavers,—This is my first letter to your Circle, we have not been taking "The Farmer's Advocate" for very long, and we have found out that it is a very good paper. I am very fond of reading those letters in it. We had a nice lot of flowers this year. We gave them to the church. We moved away about two weeks ago, so I guess we will be short of flowers next summer. The names of them were peonies, bridalwreath and white lilies. For pets I have a brown and black dog which I call Collie; he is a very good cattle dog. I passed my examination last summer; I am in the senior third class, and I am eleven years of age. I wish your Circle all kinds of success. Yours truly, ALBION, Ont. ANNIE CRISP.

Dear Puck and Beavers,—This is my first letter to your Circle. I have often thought of writing, but did not succeed. My father has taken "The Farmer's Advocate" ever since it was a monthly. We couldn't do without it. I enjoy reading the Beaver's letters, they are so interesting.

I have one sister, Ethel, older than I. I had one dear little brother and he died when he was a baby.

I live on a farm of one hundred acres just outside the city of Woodstock. I have a little over a mile to go to school. I go to the Central School. I am in the first part of the fourth book. I have been sick so much. It seems everything comes my way. My teacher's name is Miss White. I like her fine. We take domestic science, and my domestic teacher's name is Miss White. We make cocoa, apple sauce and cook potatoes and many other things.

I have seven cats. I must tell you their names, Dinah, New Years, Snowball, Beauty, Sunshine, Fluff and Jennie. Jennie is the youngest. She is so playful and mischievous. We have three horses, Maud, Queen and Nell. We had a little colt which we called Duke, but it got its leg broken and we had to kill it. I was fourteen last October, and I had some of my friends over. We had lots of fun. We played "dumb lawyer," "musical chairs," "geography," and we had a concert. We also played other games.

I suppose all the Beavers are fond of reading. I like the funny stories best. "Ann of Green Gables" is a very interesting book. I am sending a few riddles.

Do you know the story of two hundred and eighty-eight? Ans.—Well, it's two gross.

What is the cheapest feature on your face? Ans.—Your nostrils, two for a cent (scant).

Well, I must close, hoping this will escape the w.-p. b. I remain your Beaver, DELLA KARN, R. R. No. 3, Woodstock.

### Honor Roll.

Honor Roll.—Sidney Penney, Kathleen Carefoot, Esdale Gaudin.

### Riddles.

By the mill there is a walk, under the walk there is a key. Ans.—Milwaukee.

What is the difference between an old penny and a new dime? Ans.—Nine cents.

Little Miss Nannycot, Had a white petticoat, And a red nose.

The longer she stands, The shorter she grows. Ans.—A candle.

How can a man live a hundred years and die young? Ans.—When his name is Young.

## Chiclets

REALLY DELIGHTFUL  
THE DAINTY  
MINT-COVERED  
CANDY-COATED  
CHEWING GUM

Will prove your best companion in the long winter evenings. What better combination than a glowing wood fire, a cosy chair, an absorbing book, and Chiclets  
MADE IN CANADA

### A Quick Hair Restorer

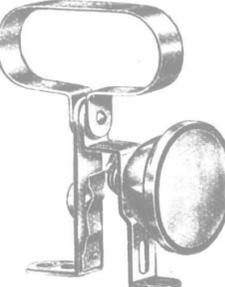
The Princess Hair Rejuvenator does its work quickly and satisfactorily. It has no odor, is as clear as water, contains no injurious ingredients, neither greasy nor sticky, and restores hair less than half gray or faded hair to its original color in ten days. Price \$1 postpaid.

Superfluous Hair, Moles etc., removed permanently by Electrolysis. Satisfaction assured always. Send stamp for booklet "F" and sample of Hair Rejuvenator.

Hiscott Dermatological Institute  
61 College Street, Toronto. Estab. 1892

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Is the latest improved portable electric light. It can be attached to an ordinary bell battery and will furnish a safe, steady, bright light. Turns on or off at will. Fifty hours' light from any good dry cell for 25 cents. Price (without battery) postpaid, \$1.25. The Masco Company, Ltd., 60 Church St., Toronto.



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Buy St. Lawrence Granulated Pure Cane Sugar in original packages, and get pure, clean, perfect sugar.

### \$31 BUYS 1 TON GOOD LUCK BRAND Cotton Seed Meal

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Crampsey & Kelly, Dovercourt Road, TORONTO

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That mortgage—or other indebtedness—may cause you no worry. You know you can repay it if all goes well. But there's the rub. What if things go wrong? Supposing you should die—could your wife pay the mortgage without your income?

An Imperial Endowment Policy for the amount of the indebtedness will insure its repayment, whether you live or die. There is no other means of meeting the case that is quite so certain—that

leaves nothing to chance.

And the annual investment required is very moderate—moderate at least when you consider the peace of mind it will afford you.

Look at this problem squarely—don't dodge—don't wait. The advantages of life insurance are available only to those in good health. Send to-day for information about a policy to suit your particular need. To-morrow may be too late.

### THE IMPERIAL LIFE Assurance Co. of Canada

Head Office, Toronto

Israel Taylor, District Manager, London, Ont.

A useful 76 page vest pocket memorandum book will be sent you post free if you ask for it.

What is the best kind of a ship? Ans.—Friendship.  
Sent by Gladys Norsworthy, Ancaster, Ont.

#### Beaver Circle Notes.

Harvey Hart wishes to become a member of the Beaver Circle. All you have to do, Harvey, is to write a letter to the Circle. That makes you a member.

Esdale Gaudin (age 12) Heathcote, Ont., wishes some of the Beavers to write to him.

#### OUR JUNIOR BEAVERS.

[For all pupils from the First Book to Junior Third, inclusive.]

#### A Good Appetite.

I have a whole menagerie  
My grandma bought for me.  
And when I'm very hungry  
I'll eat them for my tea.

And first I'll eat the elephant,  
The tiger, and the hare,  
And next the hippopotamus,  
And then the grizzly bear.

And if I'm hungry still, I'll try  
The taste of biscuit goose,  
Of Zebra, camel, fox and lynx,  
Of buffalo and moose.

The rabbit, cat, and dog, and pig,  
And horse I'll put away,  
Yes, these domestic animals  
I'll eat some other day.

#### Junior Beaver's Letter Box.

Dear Puck and Beavers.—This is my first letter to your charming Circle, so I hope it will escape the hungry w-p. b. My father has taken "The Farmer's Advocate" for as long as I can remember. For pets I have one kitten. I live on a big farm, and I have about half a mile to go to school. Our teacher's name is Mr. Thomas. He has been keeping school in this one school for forty years. I am in the junior third class. As my letter is getting

### O.A.C. NO. 72 OATS FOR SALE

Grown from hand picked seed carefully weeded while growing, pure and as free from fowl seeds as is possible to have them. Government Test Reports: not one noxious weed seed in eight samples tested, taken out of a composite sample of forty drawings by Inspector, from about 2000 bush. This variety has a great record as a heavy yielder of excellent quality of oats, not only at O.A.C. Guelph, but wherever they have been grown for the last three or four years.

Samples, prices and further particulars on application.

A. FORSTER

Markham, - - - Ontario

Hay Wanted Anyone having a carload of good mixed hay to sell, write, stating price to W. C. Brimacombe, Sterling Falls, Ontario

long I will close, wishing the Beaver Circle every success.

BRITTINIA DENYER,

Waterloo, Ont., R. R. No. 3.

(Age 11.)

Dear Puck and Beavers.—This is my first letter to your charming Circle. My grandfather has taken "The Farmer's Advocate" since it was published. My father is a farmer; he owns 300 acres of land. For pets I have a rabbit and a dog. We live eight miles from the city of Ottawa and live one mile from our school. Our teacher's name is Miss Moffat. Her home is in North Gower.

FRANCES GRAHAM.

(Age 9, Sr. II, Class.)

Britannia Bay.

Dear Puck and Beavers.—My father takes "The Farmer's Advocate" and we enjoy reading it. I go to school every day. We live near Port Burwell, and grow tomatoes and strawberries for sale. This year we had a kind called the "Fall bearing S. B.," and we picked ripe fruit every few days for the table. We have two horses named Queen and Dexter. I have a very pretty Angora kitten named Sophy; it will jump quite high through your hands.

Wishing the Circle every success.

ISABEL WALKER

Port Burwell, Ont.

Dear Puck and Beavers.—This is my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" as long as I can remember, but my father went to the fairs and took typhoid fever and died two weeks ago. I wish he was here now to see this letter. For pets I have a cat and two dogs. I had a pet lamb but it died. I go to school every day I can. I hope to see my letter in the paper. I will close now.

MARY CAMPBELL.

Northwood, Ont.

(Age 10.)

Dear Puck and Beavers.—My papa has taken "The Farmer's Advocate" for six years now, and I often read the Beaver's letters; I always watch for Dorothy Newton's letter, for Mamma and Dorothy are second cousins. I have three brothers and two sisters. I have a dog named Carlo, and a cat named Tom. We have one horse named Doll, and a colt named Prince. I like going to school. My teacher's name is Miss Yates, and I am in the junior second class. Hoping to see my letter in print I will close with best wishes to the Beaver Circle.

Monteville, Ont. CHARLIE OWEN.

(Age 9, Jr. II.)

## 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 Ingle Nook Friends.—This screed will scarcely be a "Sartor Resartus," although it may be, to some extent, a philosophy of clothes, and old clothes at that.

In a departmental store, the other day, I asked one of the clerks whether the war was affecting business very much. "Well, yes," he said, "we can notice a difference. The girls in the tailoring department are just poking along. People seem to be making their old suits do."

From the standpoint of keeping business up, it looks as though well-to-do people are making a mistake in carrying "making old things do" to an extreme. To refrain from buying here in order to send things abroad without making any difference in the bank account, means, in our own country, factories on half-time, clerks discharged, reduction in salary, a horde of out-of-work folk, and widespread misery amounting even to starvation. And the cold of winter makes conditions so much worse. In the city, every day, one hears of such pitiful tales. Only the other day, for instance, a man came in to our office looking for work. "I don't want charity," he said, "I only want work. I have tried in all the shops and factories and there is nothing to do. I tried to enlist, but they would not take me because I am beyond the age limit. How can I keep soul and body together if nobody will give me a chance to earn my living?"

So the story goes, and it would seem that the rich folk could stem it best by buying as usual, and then giving of their surplus to the soldiers and the Belgians, even at the cost of reducing the long total in the bank book. This would be true patriotism.

At the same time there are many people, less favored, who find it simply impossible to buy much this year, however much they may wish to encourage home industry. The war has affected people everywhere, and some have been so "hard hit," if one may use an expressive colloquialism, as to be absolutely obliged to resort to the strictest economy in order to make ends meet at all.

The case told about by a writer in one of my favorite "abroad" magazines, "The Weekly," is not unknown in Canada: "I found my friend surrounded by all sorts of odds and ends of old clothes. I asked if she were preparing for a jumble sale, and she explained that I saw before me her new

winter wardrobe. And it was really true. With last year's winter gowns she had to make what shift she could—it was not a matter of scare economy—two-thirds of her income had gone. But there was neither gloom nor seriousness about her. She was just going to be as smart as she could."

It takes a bit of heroism to make a last year's outfit "do" through another season or two—if one has been accustomed to getting new things every year—but, when one has come to the stage at which one can make a sacrifice smilingly there is a satisfaction in it too. It becomes so plain, then, that these comparatively trifling things do not really count for so very much after all. One's real friends will never "go back on one" for the sake of an old dress,—and for the rest, what matter?

Nevertheless woman would not be woman if she did not want to be "as smart as she can," even with old clothes; and it seems especially fortunate that the fashions this year give an unusual chance to "gar aud things luik amaist as weel 's the new." Tunics, with skirts sleeves and yokes "different," make it possible to combine two old dresses into one, or to fashion a gown with the addition of comparatively little new material. For instance, two old dresses, one black, the other black, green and blue plaid, were very attractively metamorphosed into a combination gown, the skirt, sleeves and guimpe of the plaid, the body of the waist and the tunic of the black brightened by some old-fashioned jet buttons quite down the front. The yoke effect at the top of skirts also gives opportunities, when it is desired to lower the tunic and so make it into the wider skirt which seems to be galloping towards us for the near future; while old narrow skirts give endless possibilities, with a little cleaning and furnishing for "new" underskirts. Have you ever tested the possibilities, also, of an old velvet dress, in making "new" hats? Almost any old velvet gown will afford good material enough to make one of the little soldierish hats so much in vogue this winter, and old flowers for trimming may be made to look very modern by touching them up with a little artist's tube paint and turpentine.

Just one more item this time. Have you ever found out the real economy of buying a pair of rubbers with every new pair of shoes? An ill-fitting rubber cracks at the heels with two or three days wear, whereas a pair that fits exactly should give many weeks of even hard service. When we are obliged to pay eighty-five cents per pair, instead of the forty cents of the good old "cheaper" years, this fact is worth noting. Have you any more hints to "pass on," according to the W. I. Motto?

JUNIA.

#### COOKING THE CHEAPER CUTS OF MEAT.

Many people have become so accustomed to the choicest cuts of meat, sirloin, porterhouse and tenderloin, as to be quite averse to trying the cheaper ones, and, indeed, as the cheaper ones are usually prepared, there is a good deal of excuse for the prejudice. The best cuts, having short fibres, are comparatively hard to ruin in the cooking, the cheaper, long-fibred portions, in the hands of a cook who does not know her business, are almost uneatable.

That does not alter the fact, however, that, with proper treatment these long-fibred parts may be made very appetizing. They are, moreover, just as nutritious as the more expensive portions,—a fact which should not be overlooked during the times of financial strain.

It is generally known—or should be among all women who cook—that meat of any kind should be rapidly seared all over the surface with a very strong heat at the very first of the cooking operation,—this to retain the juices and flavor which would otherwise escape. After the searing has been thoroughly accomplished, and not until then, must the temperature be lowered and the cooking permitted to proceed more gently. It is not so generally known, however, that the cheaper cuts, which contain much connective tissue between the long fibres, positively must be

cooked, after the first searing, so very slowly that the connective tissue may be induced to resolve itself into gelatine. To do this effectively, also, water must be introduced, hence while porterhouse steak may be, yes must be, cooked very rapidly, round steak is at its best when seared, and, with the addition of water and vegetables, permitted to cook very slowly, closely, covered, for three hours. Hence, also, the reason why the cheaper cuts are recommended for stews, which must cook slowly: "A stew boiled is a stew spoiled." Hence, too, the reason why "boiling" pieces, after the first few minutes of hard boiling to firm the outside, must be allowed to finish very slowly indeed.

If cooked too quickly and at too high a temperature, meat which contains much connective tissue simply hardens up, and loses in digestibility and flavor. When done just right the fibres should be very tender, and held together loosely, yet compactly, in a slightly gelatinous mass.

For a soup, cracked "soup bone," or a part of the shin, are usually selected. They should be put into cold water and brought to a boil, then cooked very slowly until all the "good" of the meat has been drawn out into the water. The meat left is of comparatively little use, but may be run through the chopper, seasoned well, combined with chopped vegetables and made into a Shepherd's Pie, with mashed potatoes or pastry over the top. Brown slightly in the oven.

For a stew, any of the cheaper portions of meat may be used. Cut it in inch pieces, sear these well in a little very hot dripping, with onions added, then add water and vegetables and cook very slowly, adding seasoning and flour to thicken.

Flank steak is nice stuffed. Cut the surface of the meat on both sides, diagonally, in both directions. Lay the steak on a board, spread over it a layer of nicely seasoned bread stuffing, roll up compactly and sew the sides and ends. Cut one or two slices of fat salt pork or bacon and cook the fat out. Dredge the roll of meat with flour, rubbing it in well, then brown it in the fat on all sides. Now put it in a granite pan with a close cover, add a sliced onion and some sliced carrot, also some tomato puree or catsup. Rinse the fat out of the frying pan with a cup of hot water, add, put on the cover, and cook in a very moderate oven 3 hours or more. Finally take out the meat, thicken the gravy with a little flour, season to taste, let boil up and serve, strained, over the meat, which should be surrounded by boiled onions. The stuffing for this dish may be made as follows: 1 cup soft bread-crumbs, salt and pepper and poultry-seasoning to taste, a little onion chopped fine and 1/2 cup melted butter or bacon-fat.

Hamburg Roast.—This may be made from round, flank, neck, or chuck ribs. Put the meat, 2 leaves parsley, a slice or two of onion, and a piece of red pepper through the food chopper. Add 1/2 cup bread-crumbs soaked in cold water and pressed dry, 1 beaten egg, salt and pepper to taste. Mix all well and press in a compact roll. Put a slice of fat salt pork on top, and put into a hot oven. After 10 minutes reduce the heat. Baste often with the gravy, and cook from 30 to 40 minutes. Serve with brown or tomato sauce made in the pan after the meat has been taken out.

Another dish from the flank steak is made as follows, a recipe given by Wealtha A. Wilson, in Pictorial Review:

"The thick end can be baked. Working from the cut end of the thick portion split the steak in such a way as to make a pocket, keeping the end and sides uncut. Fill this pocket with a good dressing. Put into a pan, season with salt, pepper, dredge with flour and drop a bit of beef drippings here and there. Baste frequently and brown nicely. Any part of this that is left can be cut in neat pieces and used as a stew with a nice brown gravy and a few carrots, an onion and the flavoring used for stews. A few pieces cut from the thin end of the steak can be put in without browning or after being browned. If preferred the thin end can be cut into strips as wide as the steak is thick. Put into the frying pan and

brown nicely with just enough drippings to keep from sticking to the pan. When almost done take from the pan, season with salt and pepper, dredge with flour and return to the pan in which the drippings have been heated. Finish cooking. Make a nice brown gravy to serve with this.

"Another way of serving this same cut is as a stew. Brown the slices as before and when almost done roll each slice around mixed vegetables which have been cut into strips and partly cooked in salted water. Carrots, celery and onions are a good combination. About three-quarters of an hour before serving, add this meat to a pot of lentils which have been cooking all morning. Serve in one dish and remove the strings from the meat rolls. To prepare the lentils, parboil with a bit of soda in the water. Drain, add fresh water with salt and simmer all morning." Split peas may be used instead of the lentils.

Another recipe from the same authority is for a cheap roast:

"A roast quite good enough for any table can be prepared from what is known in some localities as the 'plate piece.' It is a strip cut from the end of the ribs and contains their cartilaginous ends with a small amount of fat. This piece may be boiled until almost done and then put into a pan for roasting. Sprinkle with salt and pepper, dredge with flour and pour some of the liquid used in boiling into the pan. Baste carefully and brown nicely. Pare some white potatoes and put into the pan with the meat. They will brown nicely. If any of the meat is left, it can be cut in thin slices when cold and served with horse radish or other sauce. If there is liquor left from boiling, it can be used as a foundation for soup, or a cabbage head can be cut into eighths and boiled in it.

"Individual steaks may be prepared as follows: Cut a round steak into equal slices and flatten to about a quarter of an inch. Dip in minced parsley, onion and a speck of minced garlic. Roll up and enclose in a strip of thin, pickled pork. Tie securely and fry till brown. Before using the pork, pour boiling water over it for five minutes, then season with pepper. Dredge the rolls with flour and have enough drippings in the pan to prevent burning.

"A round of beef is good spiced. Rub the meat first with sugar and let stand three to twelve hours according to the size. Then rub with a mixture of all seasonings used for meat, including the various spices and a bit of saltpetre. Allow to stand as before and then rub well with table salt. Rub twice a day for several days. Soak for a short time in cold water then simmer slowly till tender. Put in the cooking water the usual onion, carrot, parsley, etc."

**The Scrap Bag.**

**HAIR RIBBONS.**

Hair ribbons for small girls are a rather expensive item if tied in the ordinary way. A better plan is to make a bow of the ribbon and fasten under it two small ends to tie around the hair.

**CHILDREN'S SASHES.**

To keep children's sashes in place sew dome fasteners underneath to fasten to the dress.

**SCALING FISH.**

To prevent the scales of fish from flying everywhere hold the fish under water during the operation.

**WICKER FURNITURE.**

Clean wicker furniture with strong salt water; scrub well and dry in the open air. Soapy water will turn it yellow. To tighten the sagging seats of cane chairs wash the under side with hot soapy water and dry in the sun.

**WHEN POSTAGE STAMPS STICK.**

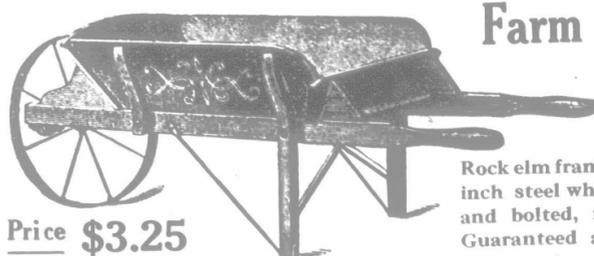
When postage stamps become stuck together place a piece of tissue paper on top of them and pass a hot iron over.

**A CLEAN OVEN.**

One cannot emphasize too strongly the importance of having a clean oven for baking. If a smoky taste is detected in the food that is baked, it is very sure to be due to the oven not being clean. The oven needs to be cleaned frequently.

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WATERLOO, ONTARIO

**What would you think?**

—of a woman who would "boil the clothes" on an oil lamp in the parlor,—to save coal.

or, of one who would cook the dinner in a big pot over a camp fire in the backyard,—because ranges were "so dear."

**VERY WELL, THEN,** How about the man who tracks up the kitchen, spills water and feed over the clean floor, gets in his wife's way and is a nuisance generally, whenever he uses the kitchen range to cook up feed for the stock?

Or, even the man who builds him a little camp fire in the backyard for the same purpose?

Surely such men have more time, more muscle, more wood and more heat to waste than it seems right for any man to have.

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although this is a part of the work that many housekeepers neglect. The food one eats should be cooked in the best and cleanest atmosphere, from the stirring-up process to the baking.

The stove kept well cleaned will wear much longer and give better service. Therefore, from an economical standpoint alone it is better to keep every part of it as clean as possible. The best way to wash a gas stove is to light the burners and heat the top and the oven, then wash thoroughly with warm water with a little washing soda dissolved in it. If one desires, the stove may then be greased with oil or any fat. This is put on with a cloth and only as much is used as will be absorbed and not leave the stove greasy. If this is rubbed on the inside of the oven it will be an aid in preventing rust, but too much grease should not be used or it will smoke.—Sel.

## Our Serial Story. PETER.

A Novel of Which He is Not the Hero.

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Chapter XXVIII.

No one suspected that the young architect had killed himself. Garry was known to have suffered from insomnia, and was supposed to have taken an overdose of chloral. The doctor so decided, and the doctor's word was law in such matters, and so there was no coroner's inquest. Then again, it was also known that he was doing a prosperous business with several buildings still in the course of construction, and that his wife's stepfather was a prominent banker.

McGowan and his friends were stupefied. One hope was left, and that was Jack's promise that either he or Garry would be at the trustees' meeting on Monday night.

Jack had not forgotten. Indeed nothing else filled his mind. There was still three days in which to work. The shock of his friend's death, tremendous as it was, had only roused him to a greater need of action. The funeral was to take place on Sunday, but he had Saturday and Monday left. What he intended to do for Garry and his career he must now do for Garry's family and Garry's reputation. The obligation had really increased, because Garry could no longer fight his battles himself; nor was there a moment to lose. The slightest spark of suspicion would kindle a flame of inquiry, and the roar of an investigation would follow. McGowan had already voiced his own distrust to Garry's methods. No matter what the cost, this money must be found before Monday night.

The secret of both the suicide and the defalcation was carefully guarded from MacFarlane, who, with his daughter, went at once to Minotti's house, proffering his services to the stricken widow, but nothing was withheld from Ruth. The serious financial obligations which Jack was about to undertake would inevitably affect their two lives; greater, therefore, than the loyalty he owed to the memory of his dead friend, was the loyalty which he owed to the woman who was to be his wife, and from whom he had promised to hide no secrets. Though he felt sure what her answer would be, his heart gave a great bound of relief when she answered impulsively, without a thought for herself or their future:

"You are right, dearest. These things make me love you more. You are so splendid, Jack. And you never disappoint me. It is Garry's poor little boy who must be protected. Everybody would pity the wife, but nobody would pity the child. He will always be pointed at when he grows up. Dear little tot! He lay in my arms so sweet and fresh this morning, and put his baby hands upon my cheek, and looked so appealingly into my face. Oh, Jack, we must help him. He has done nothing."

They were sitting together as she spoke, her head on his shoulder, her

fingers held tight in his strong, brown hand. She could get closer to him in this position, she always told him; their hands and cheeks were the poles of a battery between which flowed and flashed the vitality of two sound bodies, and through which quivered the ecstasy of two souls.

Suddenly the thought of Garry and what he had been, in the days of his brilliancy, and of what he had done to crush the lives about him came to her. Could she not find some excuse for him, something which she might use as her own silent defence of him in the years that were to come?

"Do you think Garry was out of his mind, Jack? He's been so depressed lately?" she asked, all her sympathy in her voice.

"No, my blessed, I don't think so. Everybody is more or less insane who succumbs to a crisis. Garry believed absolutely in himself and his luck, and when the cards went against him he collapsed. And yet he was no more a criminal at heart than I am. But that is all over now. He has his punishment, poor boy, and it is awful when you think of it. How he could bring himself to prove false to his trust is the worst thing about it. This is a queer world, my darling, in which we live. I never knew much about it until lately. It is not so at home, or was not when I was a boy—but here you can take away a man's character, rob him of his home, corrupt his children. You can break your wife's heart, be cruel, revengeful; you can lie and be tricky, and no law can touch you—in fact, you are still a respectable citizen. But if you take a dollar-bill out of another man's cash drawer, you are sent to jail and branded as a thief. And it is right—looked at from one standpoint—the protection of society. It is the absence of all mercy in the enforcement of the law that angers me."

Ruth moved her head and nestled her closer. How had she lived all the years of her life, she thought to herself without this shoulder to lean on and this hand to guide her? She made no answer. She had never thought about these things in that way before, but she would now. It was so restful and so blissful just to have him lead her, he who was so strong and self-reliant, and whose vision was so clear, and who never dwelt upon the little issues. And it was such a relief to reach up her arms and kiss him and say, "Yes, blessed," and to feel herself safe in his hands. She had never been able to do that with her father. He had always leaned on her when schemes of economies were to be thought out, or details of their daily lives planned. All this was changed now. She had found Jack's heart wide open and slipped inside, his strong will henceforth to be hers.

Still cuddling close, her head on his shoulder, her heart going out to him, as she thought of the next morning and the task before him, she talked of their coming move to the mountains, and of the log-cabin for which Jack had already given orders; of the approaching autumn and winter and what they would make of it, and of dear daddy's plans and profits, and of how long they must wait before a larger log-cabin—one big enough for two—would be theirs for life—and every topic which she thought would divert his mind—but Garry's ghost would not down.

"And what are you going to do first, my darling?" she asked at last, finding that Jack answered only in monosyllables or remained silent altogether.

"I am going to see Uncle Arthur in the morning," he answered quickly, uncovering his brooding thoughts. "It won't do any good, perhaps, but I will try it. I have never asked him for a cent for myself, and I won't now. He may help Corinne this time, now that Garry is dead. There must be some outside money due Garry that he has not been able to collect—commissions on unfinished work. This can be turned in when it is due. Then I am going to Uncle Peter, and after that to some of the people we trade with."

Breen was standing by the ticker when Jack entered. It was a busy day in the Street and values were going up by leaps and bounds. The broker was not in a good humor; many of his customers were short of the market.



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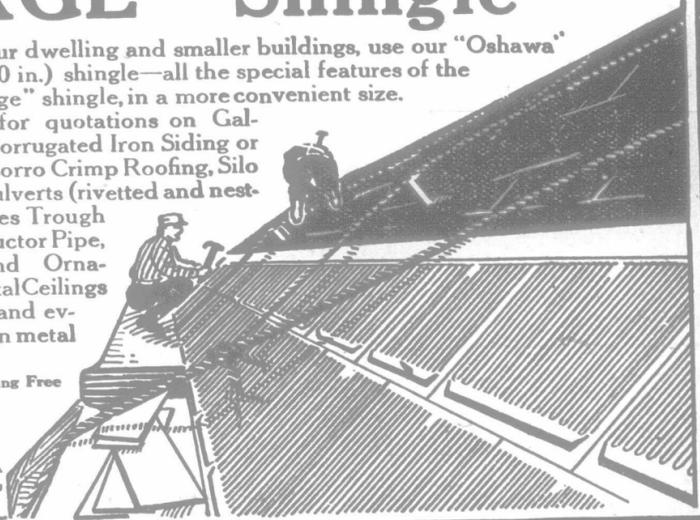
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He followed Jack into his private office and faced him.

"Funeral's at one o'clock Sunday, I see," he said in a sharp voice, as if he resented the incident. "Your aunt and I will be out on the noon train. She got back this morning, pretty well bunged up. Killed himself, didn't he?"

"That is not the doctor's opinion, sir, and he was with him when he died."

"Well, it looks that way to me. He's busted—and all balled up in the Street. If you know anybody who will take the lease off Corinne's hands, let me know. She and the baby are coming to live with us."

Jack replied that he would make it his business to do so, with pleasure, and after giving his uncle the details of Garry's death he finally arrived at the tangled condition of his affairs.

Breen promptly interrupted him. "Yes, so Corinne told me. She was in here one day last week and wanted to borrow ten thousand dollars. I told her it didn't grow on trees. Suppose I had given it to her? Where would it be now? Might as well have thrown it in the waste-basket. So I shut down on the whole business—had to."

Jack waited until his uncle had relieved his mind. The state of the market had something to do with his mercenary point of view; increasing irritability, due to loss of sleep, and his habits had more. The outburst over, Jack said in a calm direct voice, watching the effect of the words as a gunner watches a shell from his gun:

"Will you lend it to me, sir?"

Arthur was pacing his private office, casting about in his mind how to terminate the interview, when Jack's shot overhauled him. Garry's sudden death had already led him to waste a few more minutes of his time than he was accustomed to on a morning like this, unless there was business in it.

He turned sharply, looked at Jack for an instant, and dropped into the revolving chair fronting his desk.

Then he said in a tone of undisguised surprise:

"Lend you ten thousand dollars! What for?"

"To clear up some matters of Garry's at Corkloosville. The Warehouse matter

has been closed out, so Corinne tells me."

"Oh, that's it, is it? I thought you wanted it for yourself. Who signs for it?"

"I do."

"On what collateral?"

"My word."

Breen leaned back in his chair. The unsophisticated innocence of this boy from the country would be amusing if it were not so stupid.

"What are you earning, Jack?" he said at last, with a half-derisive, half-humorous expression on his face.

"A thousand dollars a year." Jack had never taken his eyes from his uncle's face, nor had he moved a muscle of his body.

"And it would take you ten years to pay it if you dumped it all in?"

"Yes."

"Got anything else to offer?" This came in a less supercilious tone. The calm, direct manner of the young man had begun to have its effect.

"Nothing but my ore property."

"That's good for nothing. I made a mistake when I wanted you to put it in here. Glad you didn't take me up."

"So am I. My own investigation showed the same thing."

"And the ore's of poor quality," continued Breen in a decided tone.

"Very poor quality, what I saw of it," rejoined Jack.

"Well, we will check that off. MacFarlane got anything he could turn in?"

"No—and I wouldn't ask him."

"And you mean to tell me, Jack, that you are going broke yourself to help a dead man pay his debts?"

"If you choose to put it that way."

"Put it that way? Why, what other way is there to put it? You'll excuse me, Jack—but you always were a fool when your damned idiotic notions of what is right and wrong got into your head—and you'll never get over it. You might have had an interest in my business by this time, and be able to write your check in four figures; and yet here you are cooped up in a Jersey village, living at a roadside tavern, and getting a thousand dollars a year. That's what your father did before you; went round paying everybody's debts; never could

teach him anything; died poor, just as I told him he would."

Jack had to hold on to his chair to keep his mouth closed. His father's memory was dangerous ground for any man to tread on—even his father's brother; but the stake for which he was playing was too great to be risked by his own anger.

"No, Jack," Breen continued, gathering up a mass of letters and jamming them into a pigeon-hole in front of him, as if the whole matter was set forth in their pages and he was through with it forever. "No—I guess I'll pass on that ten thousand-dollar loan. I am sorry, but A. B. & Co., haven't any shekels for that kind of tommy-rot. As to your helping Minott, what I've got to say to you is just this: let the other fellow walk—the fellow Garry owes money to—but don't you butt in. They'll only laugh at you. Now you will have to excuse me—the market's kiting, and I've got to watch it. Give my love to Ruth. Your aunt and I will be out on the noon train for the funeral. Good-by."

It was what he had expected. He would, perhaps, have stood a better chance if he had read him Peter's encouraging letter of the director's opinion of his Cumberland property, and he might also have brought him up standing (and gone away with the check in his pocket) if he had told him that the money was to save his own wife's daughter and grandchild from disgrace—but that secret was not his. Only as a last, desperate resource would he lay that fact bare to a man like Arthur Breen, and perhaps not even then. John Breen's word was, or ought to be, sacred enough on which to borrow ten thousand dollars or any other sum. That meant a mortgage on his life until every cent was paid.

Do not smile, dear reader. He is only learning his first lesson in modern finance. All young men "raised" as Jack had been—and the Scribe is one of them—would have been of the same mind at his age. In a great city, when your tea-kettle starts to leaking, you never borrow a whole one from your neighbor; you send to the shop at the corner and buy another. In the country—Jack's country, I mean—miles from a

store, you borrow your neighbor's, who promptly borrows your saucepan in return. And it was so in larger matters: the old Chippendale desk with its secret drawer was often the bank—the only one perhaps, in a week's journey. It is astonishing in these days to think how many dingy, tattered or torn bank-notes were fished out of these same receptacles and handed over to a neighbor with the customary—"With the greatest pleasure, my dear sir. When you can sell your corn or hogs, or that mortgage is paid off, you can return it." A man who was able to lend, to a friend in his adversity, was a pariah. He had committed the unpardonable sin. And the last drop of the best Maderia went the same way and with equal graciousness!

Peter, at Jack's knock, opened the door himself. Isaac Cohen had just come in to show him a new book, and Peter supposed some one from the shop below had sent upstairs for him.

"Oh! it's you, my boy!" Peter cried in his hearty way his arms around Jack's shoulders as he drew him inside the room. Then something in the boy's face checked him, bringing to mind the tragedy. "Yes, I read it all in the papers," he exclaimed in a sympathetic voice. "Terrible, isn't it! Poor Minott. How are his wife and the poor little baby—and dear Ruth. The funeral is to-morrow I see by the papers. Yes, of course I'm going." As he spoke he turned his head and scanned Jack closely.

"Are you ill, my boy?" he asked in an anxious tone, leading him to a seat on the sofa. "You look terribly worn."

"We all have our troubles, Uncle Peter," Jack replied with a glance at Cohen, who had risen from his chair to shake his hand.

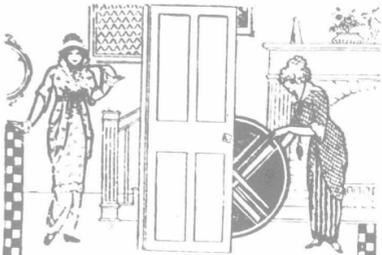
"Yes—but not you. Out with it! Isaac doesn't count. Anything you can tell me you can tell him. What's the matter?—is it Ruth?"

Jack's face cleared. "No, she is lovely, and sent you her dearest love."

"Then it's your work up in the valley?"

"No—we begin in a month. Everything's ready—or will be."

"Oh! I see, it's the loss of Minott. Oh, yes, I understand it all now. For-



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give me, Jack. I did not remember how intimate you and he were once. Yes, it is a dreadful thing to lose a friend. Poor boy!"

"No—it's not that altogether, Uncle Peter."

He could not tell him. The dear old gentleman was ignorant of everything regarding Garry and his affairs, except that he was a brilliant young architect, with a dashing way about him, of whom Morris was proud. This image he could not and would not destroy. And yet something must be done to switch Peter from the main subject—at least until Cohen should leave.

"The fact is I have just had an interview with Uncle Arthur, and he has rather hurt my feelings," Jack continued in explanation, a forced smile on his face. "I wanted to borrow a little money. All I had to offer as security was my word."

Peter immediately became interested. Nothing delighted him so much as to talk over Jack's affairs. Was he not a silent partner in the concern?

"You wanted it, of course, to help out on the new work," he rejoined. "Yes, it always takes money in the beginning. And what did the old fox say?"

Jack smiled meaningly. "He said that what I called 'my word' wasn't a collateral. Wanted something better. So I've got to hunt for it somewhere else."

"And he wouldn't give it to you?" cried Peter indignantly. "No, of course not! A man's word doesn't count with these pickers and stealers. Half-three-quarters—of the business of the globe is done on a man's word. He writes it on the bottom or on the back of a slip of paper small enough to light a cigar with—but it's only his word that counts. In these mouse-traps, however, these cracks in the wall, they want something they can get rid of the moment somebody else says it is not worth what they loaned on it; or they want a bond with the Government behind it. Oh, I know them!"

Cohen laughed—a dry laugh—in compliment to Peter's way of putting it—but there was no ring of humor in it. He had been reading Jack's mind. There was something behind that forced smile that Peter had missed—something deeper than the lines of anxiety and the haunted look in the eyes. This was a different lad from the one with whom he had spent so pleasant an evening some weeks before. What had caused the change?

"Don't you abuse them, Mr. Grayson—these pawnbrokers," he said in his slow, measured way. "If every man was a Turk we could take his word, but when they are Jews and Christians and such other unreliable people, of course they want something for their debts. It's the same old pound of flesh. Very respectable firm this, Mr. Arthur Breen & Co.—very respectable people; I used to press off the elder gentleman's coat—he had only two—one of them I made myself when he first came to New York—but he has forgotten all about it now," and the little tailor purred softly.

"If you had pressed out his morals, Isaac, it would have helped some."

"They didn't need it. He was a very quiet young man and very polite; not so fat, or so red or so rich, as he is now. I saw him the other day in our bank. You see," and he winked slyly at Jack, "these grand people must borrow sometimes, like the rest of us; but he never remembers me any more." Isaac paused for a moment, as if the reminiscence had recalled some amusing incident. When he continued his face had a broad smile—"and I must say, too, that he always paid his bills. Once when he was afraid he could not pay, he wanted to bring the coat back, but I wouldn't let him. Oh, yes, a very nice young man, Mr. Arthur Breen," and the tailor's plump body shook with suppressed laughter.

"You know, of course, that he is this young man's uncle," said Peter, laying his hand affectionately on Jack's shoulder.

"Oh, yes, I know about it. I saw the likeness that first day you came in," he continued, nodding his head to Jack. "It was one of the times when your sister, the magnificent Miss Grayson was here, Mr. Grayson." Isaac always called her so, a merry twinkle in his eye when he said it, but with a face

and voice showing nothing but the deepest respect; at which Peter would laugh a gentle laugh in apology for his sister's peculiarities, a dislike of little tailors being one of them—this little tailor especially.

"And now, Mr. Breen, I hope you will have better luck," Isaac said, rising from his chair and holding out his hand.

"But you are not going, Isaac, protested Peter.

"Yes, this young gentleman, I see, is in a good deal of trouble and I cannot help him much, so I will go away," and with a wave of his pudgy hand he shut the door behind him and trotted downstairs to his shop.

Jack waited until the sound of his retreating footsteps assured the Jew's permanent departure, then he turned to Peter.

"I did not want to say too much before Mr. Cohen, but Uncle Arthur's refusal has upset me completely. I could not have believed it of him. You must help me somehow, Uncle Peter. I don't mean with your own money; you have not got it to spare—but so I can get it somewhere. I must have it, and I can't rest until I do get it."

"Why, my dear boy! Is it so bad as that? I thought you were joking."

"I tried to joke about it while Mr. Cohen was here, but he saw through it, I know, from the way he spoke; but this really is a very serious matter; more serious than anything that ever happened to me."

Peter walked to the sofa and sat down. Jack's manner and the tone of his voice showed that a grave calamity had overtaken the boy. He sat looking into Jack's eyes:

"Go on," he said, his heart in his mouth.

"I must have ten thousand dollars. How and where can I borrow it?"

Peter started. "Ten thousand dollars!" he repeated in undisguised surprise. "Whew! Why, Jack, that's a very large sum of money for you to want. Why, my dear boy, this is—well—well!"

"It is not for me, Uncle Peter—or I would not come to you for it."

"For whom is it, then?" Peter asked, in a tone that showed how great was his relief now that Jack was not involved.

"Don't ask me, please."

Peter was about to speak, but he checked himself. He saw it all now. The money was for MacFarlane and the boy did not like to say so. He had heard something of Henry's financial difficulties caused by the damage to the "mill." He thought that this had been made good; he saw now that he was misinformed.

"When do you want it, Jack?" he resumed. He was willing to help, no matter who it was for.

"Before Monday night."

Peter drew out his watch as if to find some relief from its dial, and slipped it into his pocket again. It was not yet three o'clock and his bank was still open, but it did not contain ten thousand dollars or any other sum that he could draw upon. Besides, neither Jack, nor MacFarlane, nor anybody connected with Jack, had an account at the Exeter. The discounting of their notes was, therefore, out of the question.

"To-day is a short business day, Jack, being Saturday," he said with a sigh. "If I had known of this before I might have—yet to tell you the simple truth, my boy, I don't know a human being in the whole world who would lend me that much money, or whom I could ask for it."

"I thought maybe Mr. Morris might, if you went to him, but I understand he is out of town," returned Jack.

"Yes," answered Peter in a perplexed tone—"Yes—Holker has gone to Chicago and won't be back for a week." He, too, had thought of Morris and the instantaneous way in which he would have reached for his check-book.

"And you must have it by Monday night?" Peter continued, his thoughts bringing into review one after the other all the moneyed men he knew. "Well—well—that is a very short notice. It means Monday to hunt in, really—tomorrow being Sunday."

He leaned back and sat in deep thought, Jack watching every expression that crossed his face. Perhaps Ruth was mixed up in it some way. Perhaps

## POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisements inserted for less than 50 cents.

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their marriage depended upon it—not directly, but indirectly—making a long postponement inevitable. Perhaps MacFarlane had some old score to settle. This contracting was precarious business. Once before he had known Henry to be in just such straits. Again he consulted his watch.

Then a new and cheering thought struck him. He rose quickly from his seat on the sofa and crossed the room to get his hat.

"It is a forlorn hope, Jack, but I'll try it. Come back here in an hour—or stay here and wait."

"No, I'll keep moving," replied Jack. "I have thought of some supply men who know me; our account is considerable; they would lend it to Mr. MacFarlane, but that's not the way I want it. I'll see them and get back as soon as I can—perhaps in a couple of hours."

"Then make it eight o'clock so as to be sure. I have thought of something else. Ten thousand dollars," he kept muttering to himself—"ten thousand dollars"—as he put on his hat and moved to the door. There he stopped and faced about—his bushy brows tightening as a new difficulty confronted him. "Well, but for how long?" That part of the transaction Jack had forgotten to mention.

"I can't tell; maybe a year—maybe more."

Peter advanced a step as if to return to the room and give up the whole business.

"But Jack, my boy, don't you see how impossible a loan of that kind is?"

Jack stood irresolute. In his mad desire to save Garry he had not considered that phase of the matter.

"Yes—but I've got to have it," he cried in a positive tone. "You would feel just as I do, if you knew the circumstances."

Peter turned without a word and opened the door leading into the hall. "Be back here at eight," was all he said as he shut the door behind and clattered down the uncarpeted stairs.

Shortly before the appointed hour Jack again mounted the three flights of steps to Peter's rooms. He had had a queer experience—queer for him. The senior member of one supply firm had looked at him sharply, and had then said with a contemptuous smile, "Well, we are looking for ten thousand dollars ourselves, and will pay a commission to get it."

Another had replied that they were short, or would be glad to oblige him, and as soon as Jack left the office had called to their bookkeeper to "send MacFarlane his account, and say we have some heavy payments to meet, and will be obliged us with a check"—adding to his partner—"Something rotten in Denmark, that that young fellow wouldn't be looking around for a wad as big as that." A third merchant heard him out, and with some feeling in his voice said: "I'm sorry for you, Breen"—Jack's need of money was excuse enough for familiarity—"for Mr. MacFarlane thinks everything of you; he's told me so a dozen times—and there isn't any finer man living than Henry MacFarlane. But, just as your friend, let me tell you to stay out of the Street; it's no place for a young man like you. No—I don't mean any offence. If I didn't believe in you myself, I wouldn't say it. Take my advice and stay out."

And so footsore and heartsore, his face haggard from hunger, for he had eaten nothing since breakfast, his purpose misunderstood, his own character assailed, his pride humiliated, and with courage almost gone, he strode into Peter's room and threw himself into a chair.

Peter heard his step and entered from his bedroom, where he had finished dressing for dinner. The old fellow seemed greatly troubled. One glance at Jack's face told the story of the afternoon.

"You have done nothing, Jack?" he asked in a despondent tone.

"No—have you?"

"Nothing. Portman has gone to his place on Long Island, the others were out. Whom did you see?"

"Some people we do business with; some of them laughed at me; some gave me advice; none of them had any money."

"I expected it. I don't think you are quite aware of what you ask, my dear boy."

"Perhaps I am not, but I am begin-

ning to see. It is a new experience for me. If my father had wanted the money for the same purpose for which I want this, he would not have had to drive a mile from his house before he would have had it."

"Your father lived in a different atmosphere, my boy; in another age, really. In his environment money meant the education of children, the comfort of women, and the hospitalities that make up social life."

"Well, is not that true now, among decent people?" protested Jack, his mind going back to some homes he remembered.

"No—not generally—not here in New York. Money here means the right to exist on the planet; we fight for it as we do for our lives. Your own need of this ten thousand dollars proves it. The men I tried to find this afternoon have more than they need or ever will need; that's why I called on them. If I lost it, it wouldn't matter to them, but I never would hear the last of it all the same," and a shudder ran through him.

Peter did not tell Jack that had Portman been at home and, out of friendship for him, had agreed to his request, he would have required the old fellow's name on a demand note for the amount of the loan; and that he would willingly have signed it, to relieve the boy's mind and ward off the calamity that threatened those he loved and those who loved him—not one cent of which, the Scribe adds in all positiveness, would the boy have taken had he known that the dear fellow had in any way pledged himself for its return.

For some minutes Jack sat stretched out in his chair, his body aslant; Peter still beside him. All the events of the day and night passed in review before him; Garry's face and heavy breathing; McGowan's visit and defiance; Corinne's agonized shriek—even the remembrance made him creep—then Ruth's voice and her pleading look: "The poor little boy, Jack. He has done no wrong—all his life he must be pointed at."

He dragged himself to his feet.

"I will go back to Ruth now, Uncle Peter. Thank you for trying. I know it is a wild goose chase, but I must keep moving. You will be out tomorrow; we bury poor Garry at one o'clock. I still have all day Monday Good-night."

"Come out and dine with me, my boy—we will go to—"

"No, Ruth is worrying. I will get something to eat when I get home. Good-night!"

(To be continued.)

**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.

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**Miscellaneous.**

**Feeding Hens.**

1. Would clam shells take the place of oyster shells for laying hens, as oysters cannot be obtained?

2. Is it better to warm the grain for laying hens or not?

Ans.—1. They should, but oyster shell is generally recommended.

2. We would not advise warming. A hot mash might be fed occasionally.

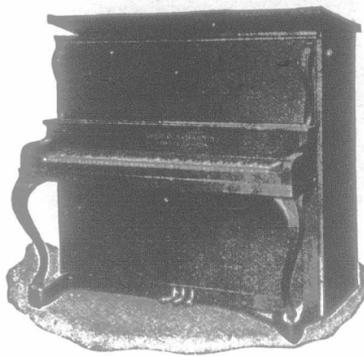
**Bad Odor.**

I have a septic tank built according to sanitary directions, and empties into a twelve-inch tile stream of running water. There is an air pipe coming out of the roof of the lavatory about six feet long. The tank is about four feet from the house. At times there is a very disagreeable odor comes up into the lavatory from the tank, and it goes all over the house. The plumber fitted the pipes out with sealed joints. Can you tell me the cause of the odor coming back into the lavatory, and how it can be remedied? Is it not right to put a disinfectant down in the lavatory?

**A SUBSCRIBER.**

Ans.—Can any of our readers give a remedy for this? The disinfectant should do no harm.

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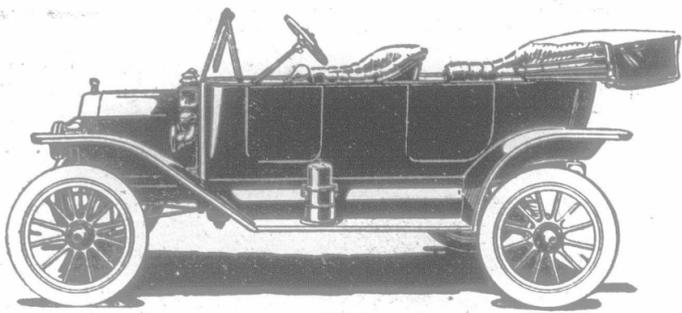
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**When Writing Mention The Advocate**



"MADE IN CANADA"

Is it three hours to town in a buckboard—  
or thirty minutes in a sturdy Ford?

More than seventeen thousand Canadian farmers drive Fords because they make the necessary trips to town during the busy season in the shortest possible time—at the smallest possible expense—and they don't eat when they aren't working.

Ford Touring Car \$590 Ford Runabout \$540. Ford Coupelet \$850. Ford Sedan \$1150. Ford Town Car \$840.

(All cars sold fully equipped f. o. b. Ford, Ont.)

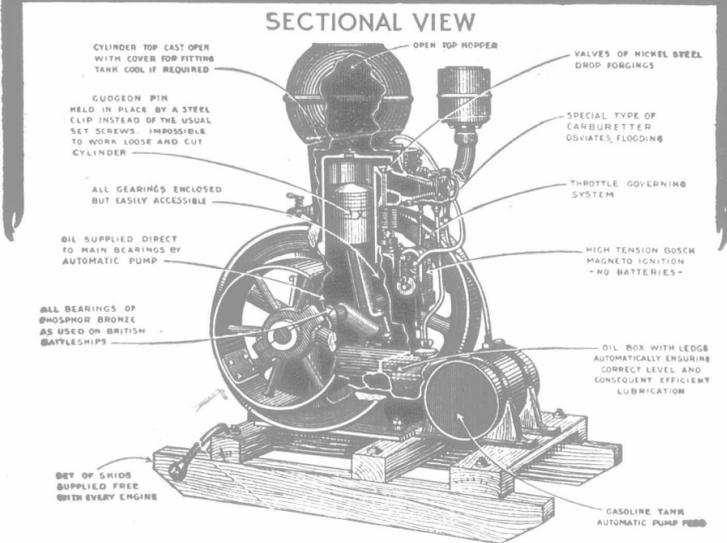
Buyers of these practical cars will share in profits, if we sell 30,000 new Ford cars between August 1, 1914 and August 1, 1915. Write for catalog E.

*Ford Motor Company*

OF CANADA, LIMITED.  
Ford, Ontario



## LISTER GASOLINE ENGINE



Labor saving, money saving and time saving features found in no other engine.

Write for Catalogue G which also gives particulars of

LISTER LIGHTING PLANTS, MILKING MACHINES,  
GRINDERS AND MELOTTE CREAM SEPARATORS

**R. A. LISTER & CO., LIMITED**

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Branches at Winnipeg, Man., and 82 Water St., St. John, N. B.

### Running Water On Every Floor!

Write us to-day for particulars of the EMPIRE WATER SUPPLY SYSTEM for country homes. Durable, efficient, no trouble to operate, costs little. We make hand, windmill, gasoline, and electric outfits.

**EMPIRE MFG. CO., LIMITED**  
1200 Dundas Street, London, Ontario

### A Pension for Life

For yourself and wife under a Life Rate Endowment Policy in the

**LONDON LIFE INSURANCE COMPANY**

### The Alsike Situation.

Ontario alsike seed is usually sold in large quantities to the European market. The demand from this source is now greatly reduced because of war conditions. Ontario growers should note that the present stability in prices is due to the much smaller production in the Province this season. A big crop next year, with continued war conditions, might cause a heavy drop in the market. Ontario alsike growers would be well advised to save seed only from specially clean fields.

#### DISTRICT SEED-GROWERS' ASSOCIATIONS.

Superior seed stocks produced from time to time by Experiment Stations may be multiplied for commerce under the direction of the Canadian Seed-growers' Association. The growing seed crops of members are inspected and reported on generally by officers of Provincial Departments of Agriculture. The cleaned and graded seed which comes up to the standard—no impurities, and 95 per cent. germination—is inspected and sealed in sacks under registration number by officers in the employ of the Association. But the quantity of registered seed, though increasing yearly, is yet relatively small, hence the recent organizations of District Associations for Eastern and Western Ontario, each under a directorate which includes a prominent grower of each kind of seed crop. These associations have grown out of committees of management of Provincial Seed Exhibitions at Guelph and Ottawa. They aim to assist individuals and organizations concerned in the production, exhibition and sale of high-class farm and garden seeds through educational and advertising movements. Seed shall be sold under guarantee by the grower as to variety, purity, and germination. R. W. Wade, Toronto, is Secretary-Treasurer for Western Ontario, and W. H. Smith, Athens, for Eastern Ontario.

### Gossip.

#### BEE-KEEPERS, ATTENTION!

The fifth bee-keeping short course will be held at the Ontario Agricultural College January 12-23. No fees will be charged, and no examination held. Students should reach the college on Monday, 11th. A very interesting program of lectures has been prepared, and most of the lectures will be illustrated with lantern slides and the actual objects under discussion. Those interested should write at once for program.

#### MAPLE GROVE SHORTHORNS.

Established over 30 years, and managed by a business man on business principles, whose business education taught him that satisfactory results in live-stock breeding could never be attained through the use of inferior sires, the Maple Grange herd of R. J. Doyle, of Owen Sound, Ont., has during all these years had the benefit of the best imported sires procurable, and the pedigrees show the sires used have been well and carefully selected. For the last dozen years, which is far enough to go back to interest modern breeders of to-day, the sires used were the Brawith Bud-bred Golden Abel (imp.); following him was the Bruce Mayflower-bred bull, Royal Bruce (imp.); then came the Jilt-bred Mount Royal (imp.), which is still in service. The female end of the herd shows the same careful selection of breeding. The majority of the forty-odd head that make up the herd at present are daughters and granddaughters of the Claret-bred Crissy (imp.), by Kintore Hero. The Nonpareil-bred Dun-na-glass Nonpareil, imported in dam, by Villager, the Myrtle-bred Myrtle 5th, by Imp. Albert Victor, and out of Imp. Myrtle 3rd. Others are descendants of Rosa (imp.). The herd are all in splendid condition, and carry a wealth of flesh. This is particularly true of the younger ones, among which are some choice heifers. The dozen or so young bulls, several of which are of breeding age, show a beautiful balance, and their breeding stamps them as herd headers of a high order.

### Questions and Answers.

#### Miscellaneous.

#### Tanning.

I am a reader of your valuable farmers' paper, and would like to know something about the particulars regarding the tanning of hides and the dressing of harness leathers. With the price of green hides and harness leathers of about 50c. per pound, there must be an opportunity to carry on a profitable tanning business. The farming industry in the Province of Quebec has greatly improved during the last few years, but the manufacturing industry is not equal to that of Ontario. It has been said that necessity is the mother of invention. By the present situation in Europe, it looks as if Canada will have to provide her own manufacturing. I would like to have you tell me, through your paper, something about the process of tanning hides, and the cost of a tannery plant large enough for tanning four or five thousand hides in a year. Hemlock bark is greatly used for tanning hides. I own timber lands with good quantities of hemlock bark, so can furnish my own bark for tanning. There are large quantities of hides being shipped from this section of the country, so there are numerous reasons for a tannery to be profitable in this section.

G. W. F.

Ans.—We cannot give details regarding a tanning factory, as to cost, etc. We would advise that you get in touch with some tanners and learn from them as near as possible the cost of a plant and the cost of machinery, etc., to operate. We feel sure you could get necessary information in this way. Also get in touch with some big dealers in leather goods. There should be a good opening for a tannery in your section.

#### Gasoline Engines—Fertilizers—Marine.

1. Would it be advisable to grind grain with a three-horse-power gasoline engine and a grinder, when we have about 600 bushels to grind yearly?

2. Which would be the most economical, to pump water for a small irrigating plant with a six-horse-power engine and grind grain with a medium grinder, or use a small outfit for the above purpose, three-horse-power being plenty power to pump?

3. What mixture of fertilizer would be most useful for the following, and how much per acre—potatoes, onions, and tomatoes? This is for field competition, and land intended for it is good garden ground, and well manured.

4. Does the word marine mean every man in the navy or just those who take part in the actual fighting? Are sailors and marines on the same man-of-war?

J. S. K.

Ans.—1. A three-horse-power engine appears rather small for grinding grain. You can do it, of course, with a grinder which is small enough to correspond with that power of engine, and makers of grinders would recommend to you what size to buy to use with that engine.

2. We have seen a 3½-horse-power gasoline engine lifting water 80 feet, and pumping it with the same stroke through an irrigating system, so we agree with you that a three-horse-power engine would do that work, yet grinding requires more power, and where you have both grinding and pumping to do, we believe it would be more economical to use a larger engine.

3. On account of the lack of potash, or its great scarcity this coming spring, it is very hard to recommend mixtures of fertilizers for farm crops. However, we can give you the proper proportions of the different ingredients. Potatoes—130 pounds nitrate of soda, 370 pounds acid phosphate, and 160 pounds sulphate of potash per acre. Onions—250 pounds nitrate of soda, 450 pounds acid phosphate, and 200 pounds muriate of potash per acre. For tomatoes—150 pounds nitrate of soda, 350 pounds acid phosphate, and 200 pounds of muriate of potash. If the land is rich, you might reduce the amount per acre to a certain extent.

4. The word "marine" applies only to a certain class of men on the one ship. When they enlist they enter different departments, most of which lead up to certain goals, while some do not have the possibilities of arriving at the highest honors in the navy. The marine is a department by itself.

**Gossip.**

Attention is directed to the advertisement in another column of Dr. Hess' Stock Food. It is a well-known fact that when stock are taken off the pasture and put on dry feed there is danger, due to the lack of natural tonics and laxative liberally supplied in grass, and also because of the lack of exercise, that diseases may infect the animals. Dr. Hess advises giving tonics during stall feeding. Dr. Hess' stock tonics have been on the market over twenty-one years. Look up the advertisement in another column.

**CLYDESDALES, SHORTHORNS, COTSWOLDS, AND YORKSHIRES, AT OAK LANE.**

For many years the name Goodfellow Bros. has been associated with the highest quality in Clydesdales, Shorthorns, Cotswolds, and Yorkshires, and at the leading exhibitions the quality of their entries elicits much favorable comment. Two years ago they made a large importation of Clydesdale stallions and fillies of a quality and breeding the equal of anything ever imported by any firm. These horses have scarcely come to their own in a Canadian show-ring. They have the quality, character, action and breeding that should get high honors. Anyone wanting a choice Clydesdale stallion or a high-class Clydesdale mare or filly should see these, as no more fashionable breeding was ever recorded. In Shorthorns, the firm is offering some right thick young bulls of pure Scotch breeding; also a few heifers. In Cotswolds, they have ram and ewe lambs, big, lusty ones, covered to the ground. In Yorkshires, there are both sexes from breeding age down. Write Goodfellow Bros. your wants to Bolton, Ont., R. R. No. 3.

**GLENGOW SHORTHORNS.**

For nearly half a century the Glengow herd of Scotch Shorthorns owned by Wm. Smith, M.P., & Son, of Columbus, Ont., has maintained a reputation for excellence of type and breeding excelled by none. These many years experience convinced Mr. Smith that for general excellence, including early maturity, good doing on ordinary care, and ability to produce more than a sufficiency of milk to properly rear their calves, the Crimson Flowers, Strathallans, Wedding Gifts, and Kibblean Beautys, have no superior among the many families of the breed. He has therefore discarded all other strains, and the wisdom of his selection is evident in the rapid gain of flesh when through their lactation period, and the universal nice condition of the young things when nursing. For several years the sire in use was the Broadhooks-bred son of the Cruickshank Butterfly-bred bull, Imp. Bullrush, Broadhooks Prince, a bull that has proven his sterling worth in the splendid fleshing and mellow, good-doing qualities of his get. The several young bulls for the coming season's trade are sons of his, and their ages range from seven to fourteen months. They are the low, thick kind. Their breeding is gilt-edged, and combined with the dozen or more heifers for sale, the quality was never better in any previous year.

Robert Miller, of Stouffville, Ont., writes: "In changing my advertisement of Shorthorns, I am making a radical change in my plan, for I am offering to pay the freight so that purchasers can tell at once what the bulls or heifers will cost them delivered at their homes. My young bulls are not only the best lot that I ever had, but they are of the most fashionable breeding, of good ages, and they are in splendid condition. They are fit to head the best herds, with the assurance that they will make a decided improvement in them. One of them is from an imported cow that was bought at a big price on account of her milking qualities, and she is a Cruickshank Lancaster besides. Another is a Lavender, from an Avondale dam, and his full brother is one of the best bulls in any Canadian herd. Another has two full brothers that have sold for big prices, and that are very select bulls. Still another is from a great heifer that is a very big milker. Some of them are very moderate in price, and all are priced low in comparison to their quality. I have some beautifully bred heifers that have been lately served. They are worth a great deal, and will be sold low."

**Questions and Answers.**

**Miscellaneous.**

**Comparing Feeds.**

Could you please inform me as to which of the following is the cheapest feed? Alfalfa hay, a little coarse when cut seventeen per ton; alfalfa hay and red clover mixed, well cured, at seventeen per ton; timothy at seventeen or silage at four dollars per ton. The silage is well cobbled and in good condition.

H. S.

Ans.—We would certainly combine the alfalfa and the silage. If the alfalfa is as well cured as the alfalfa and clover is, should be a little the better feed. However, if it is too coarse perhaps the mixed hay would prove the better. However, select one or the other of these and silage. The two work well in combination. Timothy would be the dearest feed of the lot at prices quoted.

**Green Manuring.**

1. Do you think it possible to build up a poor farm with green manure?
2. Do you think sweet clover would be as good a green manure as any?
3. What would it cost me to get the Ohio bulletin 224 on sweet clover?
4. What and where could I secure the very best book on green manures for a poor farm? Might say in explanation that we have Farm Manures, by C. E. Thorne; Fertilizers and Manures, by A. D. Hall; Clovers and How to Grow Them, by T. Shaw; Soil Fertility, by Cyril T. Hopkins; Successful Farming, by Rennie, so that it will not be any of these. Any knowledge on this subject would be very thankfully received.

H. S.

- Ans.—1. Green manures will certainly help to build up a farm, but care must be taken not to sour the soil.
2. Sweet clover seems to be particularly well adapted for this purpose.
  3. Write the Ohio Agricultural College.
  4. Through this office. We think, however, if you read the books you have carefully you would get all the necessary information.

**Horse Ration—Ring Worms—Lime-water.**

1. What amount of ensilage and straw should be fed, besides 5 pounds of hay, 4 quarts of oats, and ½ pound oil cake, also a few roots, to a 1,200-pound horse to make a slight gain during the winter?
  2. How could lime-water be made to have a supply on hand?
  3. What will stop ringworms on cattle?
- Ans.—1. If this quantity of fodder is given at each feed the horse is already receiving a sufficient quantity to cause a gain. If roots are fed the ensilage will have little effect and besides it is rather dangerous to feed ensilage to horses, unless it be of the very best quality. The amount of oat straw in addition to this quantity of fodder is immaterial, the horse will not eat enough to hurt him after being fed all these other feeding stuffs.

2. Lime-water is made by slacking a little lime in a pail, then filling the pail with water and thoroughly stirring it. The quantity of lime to the given quantity of water is not material, as the water will dissolve only a certain quantity and the undissolved lime will sink to the bottom. Of course, unslacked, burnt lime is necessary in making lime-water. Cover the liquid to keep out dirt, and it should retain its strength for an indefinite time.

3. Lard and sulphur has invariably been successful in curtailing the spread of ring-worm. Mix one part of sulphur to five or six parts of lard or sweet oil. A little coal-oil might be added to the mixture in stubborn cases. Rub it well into the affected area and around the edges. Do not allow affected calves to drink out of pails from which healthy calves feed. Disinfect stable and stalls with white-wash containing some carbolic acid or creolin. Others recommend moistening the scales with sweet oil and, after removing them, applying tincture of iodine daily until cured.

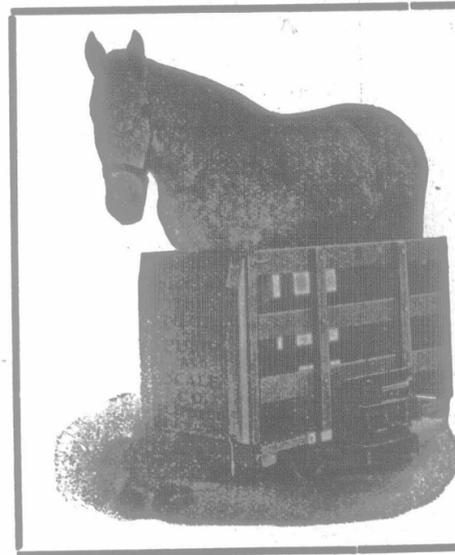


**Wheel Grease**  
FROM HANDS AND ARMS  
**Quickly Removed**

A brisk rub with a sprinkle of "OLD DUTCH CLEANSER" cleans quickly and thoroughly —leaves the skin soft and smooth.



Don't Be Without It—10¢ LARGE CAN



"Grey Dan," weight 1,612 lbs., being weighed on an

**Aylmer Three-Wheel Wagon and Stock Scale**

CAPACITY 2,000 lbs.

Delivered at any Railway Station in Ontario, complete with rack.

**\$35.00**

Government Certificate accompanies each scale.

Scale shipped same day as money received.

**THE AYLMEY PUMP & SCALE CO., LIMITED**

Aylmer, Ont.

**FREE-FARM ACCOUNT BOOK**

**Know How Much You Make This Year**  
No one shall pay a cent for Bickmore's Farm Account Book. Mr. Farmer, simply send us your name and address. Business farming puts money in the bank. This book is arranged to keep all accounts in simple form—more simple, and certainly more practical than trying to remember them; shows what to charge against crop production; has a laborer's time record; and section for personal accounts. 64 pages; for ink or pencil. Not a cheap affair. Its quality is in keeping with

**BICKMORE'S GALL CURE**

A soothing, healing salve, the old-time reliable horse remedy. Horses are now too valuable and too high priced to take chances of losing their services. Get full value out of yours. Bickmore's Gall Cure heals and cures all kinds of Galls, Sore Shins, Sore Feet, Sore Eyes, Sore Throats, Sore Noses, Sore Ears, Sore Mouths, Sore Tongues, Sore Lips, Sore Chaps, Sore Cuts, Sore Scuffs, Sore Bruises, Sore Swellings, Sore Lumps, Sore Blisters, Sore Ulcers, Sore Sores, Sore Wounds, Sore Cuts, Sore Scrapes, Sore Abrasions, Sore Burns, Sore Scalds, Sore Frost-bites, Sore Chills, Sore Fevers, Sore Colics, Sore Diarrhoeas, Sore Constipations, Sore Stomachs, Sore Intestines, Sore Livers, Sore Kidneys, Sore Bladders, Sore Uters, Sore Vaginas, Sore Penises, Sore Testes, Sore Epididymides, Sore Spermatic Cordes, Sore Prostates, Sore Ureters, Sore Urethras, Sore Vasa Deferentia, Sore Epididymides, Sore Spermatic Cordes, Sore Prostates, Sore Ureters, Sore Urethras, Sore Vasa Deferentia.

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**"Knox Sloop Sleigh"**  
**\$24.00**

Delivered to any R. R. Station East of Fort William.

Write for Catalogue

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**CLYDESDALES**  
R. B. PINKERTON, ESSEX, ONT.  
Long-Distance Telephone.

Imported and Canadian-bred. With over 25 head to select from, I can supply, in either imported or Canadian-bred, brood mares, fillies, stallions and colts. Let me know your wants.

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Quality in Shire Fillies, and one two-year-old Stallion. Shortorns of all ages. A very choice lot of young bulls, three from our Show Cows and our present stock bull.  
**JOHN GARDHOUSE & SONS** Long-Distance Telephone WESTON, ONTARIO

**Imp.—Clydesdales, Stallions and Fillies—Imp.**  
We have had lately landed, an exceptionally choice importation of Stallions and Fillies. They have the big size, the clean flut quality bone and the most fashionable breeding. Our prices are consistent with the times.  
**JOHN A. BOAG & SON** QUEENSVILLE, ONTARIO

MADE IN CANADA  
**SAVE-THE-HORSE**  
(Trade Mark Registered.)  
**BOOK FREE**  
IN WINTER

While time and opportunity favors—a permanent cure can be made with **Save-The-Horse**. 19 Years a Success.

**REMEMBER**—No blistering or loss of hair—Horse works as usual—at any season.

Our "Save-The-Horse BOOK" is a Mind Settler—it contains things that are new, helpful and reliable—nowhere else found. It is the Quintessence and last word of up-to-date treatment of Ringbone—Thoropin—SPAVIN—and ALL—Shoulder, Knee, Ankle, Hooft and Tendon disease—Tells how to Test for Spavin; how to locate and treat 58 forms of LAMENESS—Illustrated.

**WE ARE THE ORIGINATORS** of the plan of treating horses Under Signed Contract to Return Money if remedy fails.

Write and we will send our—BOOK—Sample, Contract and Advice—ALL FREE to (Horse Owners and Managers—only). Address:

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145 Van Horn St., Toronto, Ont.

**DR. PAGE'S ENGLISH SPAVIN CURE**

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on cattle, and to remove all unnatural enlargements.

This preparation, unlike others, acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E.C. Mailed to any address upon receipt of price \$1.00.—Canadian agents:

**J. A. JOHNSTON & CO., Druggists,**  
171 King St., E., Toronto, Ont.

**Fistula and Poll Evil**

Any person, however inexperienced, can readily cure either disease with **FLEMING'S FISTULA AND POLL EVIL CURE**—even had old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

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Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.  
**Fleming Bros. Chemists**  
75 Church Street, Toronto, Ont.

**ABSORBINE**  
TRADE MARK REG. U.S. PAT. OFF.

Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain; Stops Spavin Lameness. Allays pain. Does not Blister, remove the hair or lay up the horse. \$2.00 a bottle, delivered. Book 1 K free.

**ABSORBINE, JR.**, the antiseptic liniment for mankind. For Synovitis, Strains, Gouty or Rheumatic deposits, Swollen Painful Varicose Veins. Will tell you more if you write. \$1 and \$2 per bottle at dealers or delivered. Manufactured only by **W. F. YOUNG, P.D.F.** 258 Lyman's Bldg., Montreal, Can.

**Clydesdales and Shorthorns.** Young stallions of superior quality, certain winners at the big shows. Young brood mares and some heifers bred from cow and milkers up to 52 lbs. a day. Come and see them.

**PETER CHRISTIE & SON,**  
Manchester P.O., Ont. Port Perry Station

**Dr. Bell's** Veterinary Medical Wonder. 10,000 \$1.00 bottles to horse men who will give the Wonder 1 for 1 deal. Guaranteed for Inflammation of the Lungs, Bronchitis, Croup, Distemper, etc. Send 10¢ for no mailing, packing, etc. Vets. wanted. Write address plainly. **Dr. Bell, V.S., Kingston, Ont.**

**Questions and Answers.**  
Miscellaneous.

**A Stallion Enrolment Query.**

Would you please let me know, through your valuable paper, why a pure-bred stallion that has not been inspected this year is marked certificate Form 3, while others are marked Form 1?

A. G. D.

Ans.—Had your stallion been inspected and found free from malformations and diseases named in the regulations of the Act, he would have received the certificate Form 1. Stallions pure-bred, but not inspected, are only allowed Form 3 until they are inspected and approved.

**Rations for Dairy Cattle and Growing Stock.**

I have read with interest your article on "Feeding the Crop to Best Advantage," in October 22nd issue. My feed consists of ensilage, straw, oats, barley and some grass hay.

1. Would you kindly tell me, through the columns of your valuable paper, what is required for a profitable ration for producing milk, beef, and growing stock? What would be required, and also what quantities of it to balance the ration for feeding the above-mentioned stock?

2. Is oil cake good for horses, and how much should be fed daily?

3. Is oil cake profitable to feed hogs? If so, how should it be fed? J. N. P.

Ans.—1. The quality of these feeding stuffs demonstrates very strongly the advisability of growing legumes on the farm. To make what might be considered a balanced ration for dairy cattle out of these farm-grown stuffs it requires an additional five pounds of protein-rich foods to make a ration that practical feeders or scientists would consider correct. After much figuring we recommend the following as a ration, combined in such a way that the nutritive ratio has one part of protein to about six and a half parts of carbohydrates and fats. This is considered plenty wide for a dairy cow, or in other words quite sufficient amount of carbohydrates and fats for the amount of protein contained therein. The ration is as follows: 10 pounds of hay, 4 pounds oat straw, 40 pounds silage, 2 pounds cottonseed meal, 2 pounds bran, 2 pounds oil-cake meal, 3 pounds of oats and 2 of barley. The grain part of this ration may look exceedingly large, but it amounts to ten pounds, which is one pound of grain for each four pounds of milk given by a cow producing 40 pounds per day. Some dairymen feed one pound of grain for each three and one-half pounds of milk produced per day, so the grain ration of this feed is not out of the way. It appears necessary to add the additional two pounds of oil cake to this ration. Cottonseed meal at present prices should constitute the protein-rich fodder, but it is not advisable to feed or recommend more than two pounds of cottonseed meal per day, hence the additional two pounds of oil cake is advised. It must be left to the reader to judge what parts of this ration it would be advisable for him to feed, but to compound a balanced ration from the fodders given in the enquiry it is necessary to add the protein-rich feeding stuffs that have been mentioned or others which may be purchased on the market. Beef cattle and growing stock do not require as large a percentage of protein as dairy cattle, and the cottonseed meal and oil-cake meal might be dispensed with satisfactorily. Some clover or alfalfa hay would have made a difference in this ration quite in keeping with economy. No farmer can afford to ignore legumes in the rotation.

2. Oil-cake meal is too laxative to feed liberally to horses, but a small quantity will advertise itself in the coat and sleek appearance of the horse. From one-half pound to one and one-half pounds per day is sufficient and all that is advisable to feed. A heavy use of this feeding stuff for horses makes a self-blush.

3. A handful of salt should be given to each of the growing pigs daily in keeping with good swine husbandry. It reduces the cost of feeding to a small extent, and is a good preventive of the hog



**Pratts**

**Preparations for Horses, Cows, Hogs and Sheep**

Pratts Healing Ointment (for Man or Beast), 25c.-50c.  
Pratts Worm Powder, 50c.  
Pratts Veterinary Colic Remedy, 50c.-1.00.  
Pratts Liniment 25c.-50c.-\$1.00.  
Pratts Distemper and Pink Eye Remedy, 50c.  
Pratts Animal Regulator, 25c. to \$3.50.  
Pratts Dip and Disinfectant, \$1.50.  
Pratts Healing Powder, 25c.  
Pratts Heave, Cough and Cold Remedy, 50c.-\$1.00.  
Pratts Fly Chaser, 60c.-\$1.00.  
Pratts Bag Ointment (for Cows), 25c.-50c.  
Pratts Spavin Remedy, 50c.-\$1.00.  
Pratts Spavin Paste, 50c.  
Pratts Cow Tonic, 50c. to \$3.50.  
Pratts Calf Tonic, 50c. to \$3.50.

**"Earned \$65.00 on a single horse"**

That's what an enthusiastic user of Pratts Animal Regulator wrote in regard to a run down mare that he bought for \$135 and fed Pratts to such good effect that he refused an offer of \$200 for her. Nearly every day we hear of splendid results being constantly obtained through the systematic use of

**Pratts Animal Regulator**

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25-lb. pail, \$3.50, also in packages at 50c. and \$1.00.  
It is always advisable to keep PRATTS VETERINARY COLIC REMEDY on hand in case of emergency. Refer to list given here for full line of Guaranteed Preparations for Horses, Cows, Sheep and Hogs. Your money back if not satisfied.

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Stallions and Mares

We have a larger selection of Percherons than any other firm in Eastern Canada, and our barns contain more prizewinners at the leading fairs than all others combined. No advance in prices, although the source of supply is cut off. Write for beautiful illustrated catalogue.

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Bell 'Phone 18

**CLYDESDALES AND PERCHERONS**

I have not exhibited at any shows during 1914. I am still in the horse business, and at present have the best lot of Stallions and Mares I ever had at any one time, 29 heads: 17 Clyde Stallions and 4 Mares; 5 Percheron Stallions and 3 Mares; a visit to my stable will convince you I have more high-class horses than can be found in any one stable in Canada, and won't be undersold by any dealer in Canada, always a pleasure to show stock to intending purchasers, sale or no sale.

**T. H. HASSARD, MARKHAM, P.O., G.T.R.**  
Locust Hill Station only 3 miles, C.P.R. Long-Distance Phone.

**1914 Stallions—CLYDESDALES—Fillies 1914**

We made the grade on a darkened ship without meeting a Kaiser cruiser. Our 1914 importation are home. Stallions and fillies especially selected for character, quality and breeding. If you want a topper, come and see them.

**Smith & Richardson, Columbus P.O.**

Myrtle C.P.R.

Brooklin G.T.R.

A few choicely-bred young stallions always on hand and for sale. Prices and terms right. Visitors welcome.

**BARBER BROS.**

**GATINEAU PT. QUB.**

**Royal Oak Clydesdales**

Present offering: 5 Imported Mares (3 with foal by side) 2 yearling Fillies (1 Imp. and 1 Canadian-Bred), 1 Canadian-Bred Yearling Stallion, 1 Canadian-Bred 2-year-old Stallion, 1 Canadian-Bred 6-year-old Stallion. Parties wishing to secure a good brood mare or stallion should inspect this offering or communicate with me at earliest convenience.

**G. A. Attridge, Muirkirk, Ont. P.M. and M.C. Ry. L.-D. Phone Ridgerton**



When writing advertisers, kindly mention "The Farmer's Advocate."



**FEED YOUR STOCK**

Protein (the nitrogenous matter) is the most valuable and necessary element in all animal foods. It builds up the flesh and keeps it in general healthy condition.

The food that contains more protein than any other is

**"MAPLE LEAF" OIL CAKE MEAL**  
(Fine ground or nutted)

This meal is made by the old process, and is guaranteed pure and unadulterated. Read this analysis:

Dr. J. T. Donald,  
Analytical Chemist and Assayer  
318 Lagachetiere St. West,  
Montreal, March 10, 1914

Certificate of Analysis  
(Laboratory No. 61793)  
Of 1 sample of Oil Cake Meal  
marked "MAPLE LEAF."  
Received from Messrs. Canada  
Linseed Oil Mills, Limited.  
This sample contains:

Protein (flesh formers)	58.28
Oil (fat formers)	6.45
Carbohydrates (fat formers)	8.8
	77.91

These figures show that this Cake is a cattle food of very high grade. The large percentage of Protein and Albuminoids, the flesh-forming matter is a notable feature in Oil Cake.  
(Signed) J. T. DONALD,  
Official Analyst to the Dominion Government.

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DUNCAN McEACHRAN, PROPRIETOR  
Breeder and Importer of High-Class

**Clydesdales and Shires**  
Correspondence Solicited

**For Sale**—The Aberdeen-Angus bull, Sam. Black=8081=, calved March 16th, 1914; dam, Glen Maple Miss=7588=; sire, Valley Farm Rebel=5676=. This calf is of good quality, and would make a good sire for any herd.

SAM MULHOLLAND, MITCHELL, ONTARIO

**Beaver Hill Aberdeen - Angus**  
Choice young Bulls fit for service  
Females all ages, for sale.

Alex. McKinney,  
R. R. No. 2, Erin, Co. Wellington, Ontario

**Tweechill Aberdeen - Angus**  
Excellent young bulls of serviceable ages.  
Heifers in calf, etc.

James Sharp, R. R. No. 1, Terra Cotta, Ont.  
C. P. R. and G. T. R., Cheltenham Station.

**Strawberries**, 50 varieties; Raspberries, 15 varieties; Seed Potatoes, 10 varieties. Free Catalogue.

**THE LAKEVIEW FRUIT FARM**  
H. L. McConnell & Son, Port Burwell, Ont.

**Questions and Answers.**  
Miscellaneous.

**Curing Skins.**

Kindly tell me how to cure a muskrat skin so I can use it. G. E. M.

Ans.—This question has been answered too many times this past season to warrant space at this time. Refer to page 1891 in the issue of October 29, 1914.

**Holidays.**

Being a reader of "The Farmer's Advocate" I would be glad to have an answer to the following questions:

1. What are the legal holidays during the year for a hired man on a farm?
2. Can a claim every Sunday off from B when not spoken of at time of hiring?

Ans.—1. Sundays, New Year's Day, Good Friday, Easter Monday, Victoria Day, Dominion Day, Labor Day, Thanksgiving Day, Christmas Day, and any day appointed by proclamation for a general fast or thanksgiving.

2. He must do chores, and is not entitled to any Sundays free from such work, unless there is an agreement to that effect. It is customary, however, to allow the man every other Sunday off.

**Spring Grain—Re Geese and Ducks.**

1. Will you please tell me what kind of spring grain is the best to sow on late fall plowing, also old sod plowed in spring? Can I grow peas or barley on same? Can I grow flax on clay land, and does it require any special attention more than other grain? Would you advise sowing flax with peas for pig feed?

2. I am trying to raise ducks, and some of them seem to lose the use of their legs. Can you give me any information on raising ducks and geese? Do they need to have water to swim in, or will they do as well without it? How do ducks hatch, etc.?

**SUBSCRIBER.**

Ans.—1. The late-fall-plowed land should grow most any spring grain, but we would reserve the peas for the spring-plowed land, as they usually come on quicker on that soil. Flax will grow on clay land, but it would probably do better on clay loam worked down out of clover sod. It does not require any special treatment other than a thoroughly-prepared seed bed. We would not advise sowing flax and peas together for pig feed. A little flaxseed mixed with the grain for hogs is desirable, but we fear you would have difficulty with the crop if you attempted to grow those two particular kinds of crops together.

2. It appears that your ducks have been receiving too much concentrated food, and have gone off their feed and off their feet as well. Water to swim in is not absolutely necessary. They should have a liberal quantity in their runs. They wash their food down with it very largely, and must resort to it quite often. If you have large fountains from which they may drink at any time, you can dispense with the swimming-pool. The first eggs laid by ducks in the spring are usually either infertile or their hatchability is very small indeed. They do better a little later in the season when spring begins to open up. For growing ducks, a mash made of one part corn meal and two parts of bran, with 10 per cent. of high-quality beef scraps added, and 5 per cent. of coarse sand or fine grit, makes a mixture on which the ducklings will thrive. Some feed equal parts of corn meal and bran. They should be fed often, if possible four times a day, until they are four weeks old, after which three times is sufficient. The mash should be mixed, preferably with whole or skim milk, a little damp, but not sloppy, and fed in troughs. Green food in some form must be provided, and where grass is not growing in their yards or runs, it should be cut and given to them. Ducks should be fed regularly, and any changes in their rations should be brought about very gradually. They are quite susceptible to changes, and must be treated accordingly. We would advise you to get some literature on ducks and geese, as it is a proposition that requires considerable knowledge, and no small amount of experience. There is a small book entitled, "Ducks and Geese," which might be procured through this office for 75c., postpaid.

**OTTAWA WINTER FAIR**

OTTAWA

January 19, 20, 21, 22, 1915

Eastern Ontario's Great Winter Fair.

Most modern and completely equipped Winter Fair Buildings in the Dominion.

**\$12,000.00 Offered in Prizes**

Entries close January 8th, 1915.

**JOHN BRIGHT, President, W. D. JACKSON, Secretary**  
OTTAWA, ONT.

**THE MAPLES CHAMPION HEREFORDS**

For the month of December, to make room, we will quote special prices on 15 young bulls, some Toronto winners among them; also females any age. Write for prices on one or a carload.

W. H. & J. S. Hunter R.M.D., Orangeville, Ont.

**1909 Canada's Champion Hereford Herd 1914**

For the above six years at the leading shows from Toronto to Edmonton my herd has maintained its supremacy as the champion herd of Canada; American and Canadian bred bulls for sale, the highest attainment of the breed; also cows and heifers.

L. O. CLIFFORD, OSHAWA, ONTARIO

**ROSEDALE STOCK FARM 20 SHORTHORN BULLS 20**

Some of them fit to head the best herds in the country. Some are from heavy milking dams. Six are from imported dams. Street Railway and Long-Distance Telephone.

**J. M. GARDHOUSE**  
WESTON P. O.

**SHORTHORNS**

Scotch Bates and Booth, yes, we have them, pure Scotch, pure Booth and Scotch-topped Bates. Young bulls of either strain. Heifers from calves up. One particularly good two-year-old Booth bull, ideal dairy type.

Geo. E. Morden & Son - Oakville, Ontario

**Willow Bank Stock Farm**

Shorthorns and Leicester Sheep. Herd established 1855; flock 1848. The imported Cruickshank Butterfly Roan Chief=60865= heads the herd. Young stock of both sexes to offer. Also an extra good lot of Leicester sheep of either sex; some from imported sires and dams.

James Douglas, Caledonia, Ontario

**Maple Grange Shorthorns**

Pure Scotch and Scotch-topped. Breeding unsurpassed. A nice selection in young bulls, and a limited number of thick, mossy heifers.

R. J. Doyle, Owen Sound, Ontario

**SHORTHORNS**

of breeding, style and quality. If in want of an extra choice herd-header, carrying the best blood of the breed, or a limited number of right nice yearling heifers, write us; we can supply show material of either bulls or females.

Long-Distance Telephone Geo. Gier & Son, R.R. No. 1, Waldemar, Ont.

**Northlynd R.O.P. Shorthorns and Jerseys**

For Sale—Our noted sire of big milkers, St. Clare=84578= a Clara bred, son of Waverly. Several of his sons out of R.O.P. dams; also Shorthorns and Jersey females. Official records is our specialty.

G. A. JACKSON, DOWNSVIEW P.O., WESTON STATION.

**Meadow Lawn Shorthorns**

Have for sale several well bred young bulls and heifers also some young cows of thick fleshy type. Write for prices.

BELL PHONE. F. W. Ewing, R.R. No. 1, Elora Ont.  
C. P. R. and G. T. R.

**Poplar Hall Shorthorns**

If you want a herd-header of the highest breeding, visit our farm; sired by the great Uppermill Omega, Imp.; we have C. Butterflys and Lovelys, Marr Roan Ladys and Cinderellas, from 7 to 18 months of age.

MILLER BROS., R.R. No. 2, CLAREMONT, ONTARIO  
Claremont C.P.R. Pickering G.T.R. Greenburn C.N.R., Sta.

**BULLS AND FEMALES**

At greatly reduced prices, as my sale had to be called off on account of the weather. Here must be reduced, as I am short of feed and stabling. Low prices for quick sale.

Myrtle, G. P. R. and G. T. R. John Miller, Ashburn, Ont.

**IRVINE DALE SHORTHORNS**

Herd is headed by Gainford Select (a son of the great Gainford Marquis). A number young bulls of choice breeding and out of good milking strains. Also a few heifers.

J. Watt & Son Elora Station Salem, Ontario

**10 Shorthorn Bulls, 9 Imported Clydesdale Mares**

Our bulls are all good colors and well-bred. We also have Shorthorn females of all ages. In addition to our imported mares, we have 7 foals and yearlings. Write for prices on what you require.

Bell Telephone. W. G. PETTIT & SONS, Freeman, Ontario  
Burlington Junction, G.T.R., 1/2 mile.

**SALEM STOCK FARM HOME OF THE CHAMPIONS**

Special prices of Twenty Shorthorn Bulls during Winter Fair Week. Many of them are good enough to head the best herds. Others big and growthy that will sire the best kind of steers. Elora is only thirteen miles from Guelph. Three Trains daily each way.

J. A. WATT, ELORA, ONTARIO

**H. SMITH - HAY P.O., ONT.**

12 SHORTHORN BULLS and as many heifers for sale Write your wants. You know the Harry Smith Standard.

**GLENGOW SHORTHORNS**

For this season's trade we have the best lot of young bulls we ever bred Wedding Gifts, Strathallans, Crimson Flowers and Killbuck Beautys, sired by Broadhooks Prime, these are a thick, mellow, well-bred lot. Heifers from calves up.

WM. SMITH & SON, COLUMBUS, ONTARIO

**HINMAN**  
THE UNIVERSAL MILKER



MADE IN CANADA.

The Milker with the PROGRESSIVE VACUUM AND INDEPENDENT PUMP.  
1 1/2 H.P. will operate 4 units.

**Price \$50 per unit**

**H. F. BAILEY & SON**  
(Sole manufacturers for Canada),  
Galt, Ont., Can.

Why Suffer From Chilblains when



**Douglas' Egyptian Liniment**

will give immediate relief from this troublesome malady? It will prevent blood poisoning and stop bleeding instantly.

May we send you a sample bottle to prove its merits? Free on request.

**DOUGLAS & CO., NAPANEE, ONT.**

**SHORTHORNS**

8 bulls from 7 to 15 months, some are herd headers both in quality, size and breeding, some are thick, fleshy, sappy bulls that will get good steers, also 10 heifers and a few young cows bred on milking lines; prices easy. Write me your wants.

**STEWART M. GRAHAM**  
LINDSAY, ONTARIO

**THE KEYSTONE DEHORNER.**

The Department of Agriculture has found by actual experience that dehorning cows adds to their milking value. The **KEYSTONE DEHORNER** is mentioned in the 1913 report (page 131) as a most effective instrument for the purpose. Write for booklet.

**R. H. MCKENNA, 219 Robert St., Toronto.**

**Oakland--61 Shorthorns**

Present offering: 4 Roan bulls 10 to 12 months, 2 Reds, older; also matured cows and heifers. Mostly sired by one of the best Roan bulls in Ontario. Inspect this dual purpose, good head, or write:—

**Jno. Elder & Sons, Hensall, Ontario**

**Spring Valley Shorthorns**

Herd headed by the two great brooding bulls Newton Ringleader (Imp. 73783), and Nonpareil Ramsden 83422. Can supply a cow of either sex.

**KYLE BROS., DRUMBO, ONTARIO**  
Phone and Telegraph Not. At.

**SHORTHORNS**

Three bulls, 11 months, a number of younger cows with their calves, cows in calf and yearling heifers for sale. Good individuals. Good Pedigrees. Inspection solicited.

**J. T. GIBSON, DENFIELD, ONTARIO**

**R.O.P. Shorthorns, Prizewinning Yorkshires**

I can supply young bulls bred the same as the Guelph Dairy Test Winner this year and out of R.O.P. dams. Young sows bred to farrow in Feb., also boars all of show calibre.

**A. STEVENSON, Atwood, R.R. No. 4, Atwood Sta.**

**Shorthorns and Swine**—Have some choice young bulls for sale; also cows and heifers of show material, some with calves at foot. Also choice York-shire sows.

**ANDREW GROFF, R.R. No. 1, FLORA, ONT.**

**Clydesdales, Shorthorns, Cotswolds and Yorkshires.**

1 Imp. Clyde-St. 10 sons, several Imp. Clyde Mares and Excs. highest quality, closest breeding; Scotch Shorthorn Bulls and Heifers, Cotswold Ram and Excs. Land's, Yorkshires, both sexes. Goodfellow Bros., Bolton, Ont. R.R. No. 3

**6 SHORTHORN BULLS**

25 females, reds and roans, servicable, best type and quality, size; cows milking up to 50 lbs. Prices easy.

**THOMAS GRAHAM, R. R. No. 3, Port Perry Ont.**

**JERSEY BULLS FOR SALE**

I have three very fine registered Jersey bulls, from 6 to 10 months old from imported sires, and have fine that are great producers. Prices very reasonable. Write:

**CHAS. E. ROGERS, INGERSOLL, ONTARIO**

**Mention this Paper**

**Free Short Course in Horticulture.**

A free short course in horticulture will be held at Macdonald College, February 8th to 12th, inclusive, which is intended to give practical information on fruit-growing and vegetable-gardening to business men and farmers who have not the time to devote to a longer course. In addition to the regular lectures, considerable time will be given to a discussion of the different subjects and the answering of questions. Such subjects as the following will be taken up: "The Apple Orchard," "Planting, Management, Renovation, Pruning, Spraying, Box and Barrel Packing Demonstrated, and the Marketing of the Fruit," "Plum and Cherry Culture," "Strawberry, Raspberry, and Currant Culture," "Potato Culture," "Onion Culture," "Peas and Beans," "Up-to-date Methods of Gardening," "Ten Acres of Intensive Gardening with Vegetables and Small Fruits," and "Gardening."

General.—"Improvement of the Home Surroundings," "Fungus Diseases of Fruits and Vegetables," "Insects, and How to Combat Them," and "Making the Lime-Sulphur Wash and the Bordeaux Mixture," demonstrated. The green-houses will be visited from time to time, where many different flowers and vegetables can be seen and studied. The course will be made as practical as possible, and many subjects will be illustrated by actual demonstrations.

The course is open to all, both men and women. Board and rooms can be secured near the College at very reasonable rates. Remember the date, Feb. 8th to 12th, inclusive.

For further particulars address Dr. F. C. Harrison, Principal; or T. G. Bunting, Professor of Horticulture, Macdonald College, Ste. Anne de Bellevue, Que.

**A Nation of Self-helpers.**

The man that's able to work and is out of work is the kind of man that we are determined to make into a busy producer. This is a problem for practical people. Now that winter is here, we can't afford to leave this problem to the charitable organizations. Canada is a poor land for organized charity. This is no country of slums. It is a land of self-helpers. Suppose that for every man, woman and child in Canada a hundred dollars were spent every year in buying Canadian goods. Total, \$800,000,000. That is more than half the total amount of goods turned out of Canadian factories. That eight hundred millions of goods made, means more than \$150,000,000 paid out in wages. Add that \$150,000,000 to the gross amount of money spent for Canadian goods, and you add enough to keep the machine going as near as possible to a peak load. Bear in mind that every dollar spent for Canadian goods adds about 20 cents to the amount of money paid in wages. It means twenty cents more to spend for goods made in Canada. The man who gets the wages becomes a partner with the man who buys the goods, to keep up the grand total of goods made by the workers of Canada, for Canadians. This is the practical side of self-help. It's the wages paid to the workers that represents the business done in the factories and the prosperity that affects everybody's pocket.

**CHESTER WHITES AT THE CLEARVIEW FARM.**

For many years the show-ring records of Toronto, Ottawa, London and Guelph, show that the Clearview herd of Chester White swine, owned by D. DeCoursey, of Mitchell, Ont., has won by far the largest number of awards in competition with all comers. An enumeration of these winners is not necessary, as they are history well known to all interested in the breed, suffice it then to say that last fall at Toronto, London and Ottawa, every first prize, but one in the four classes went to this herd, besides their many winners in the sow classes, herd prizes, and championships. All the breeding stock of the herd are winners; many of them champions. The herd is a large one, and at all times for sale are both sexes of any desired age. The farm is easily reached from Mitchell, G. T. R., or West Monkton, C. P. R. Write Mr. DeCoursey, to Mitchell, R. R. No. 2.



**Watch Out When Your Animals Are On Dry Feed**

**GILBERT HESS, Doctor of Veterinary Science, Doctor of Medicine**

Right now is the most trying season of the whole year for farm stock; they have been taken off pasture, put on dry feed and thereby deprived of the natural laxatives so liberally supplied in grass; confined in stables with consequent loss of exercise and pure air.

In my lifetime experience as a doctor of veterinary science, many a time have I been called in to treat cases of chronic constipation, stocking of the legs, dropsical swellings, skin diseases; but the most common and dreaded ailment of all—especially among hogs—is worms—worms, and all these troubles are most prevalent during the stall-feeding period—during winter and spring, when stock are off pasture. I want every farmer and stock raiser—I want you—to feed

**DR. HESS STOCK TONIC**  
A Conditioner and Worm Expeller

feed it this winter at my risk—on my guarantee below. This scientific preparation contains tonics to tone up the animal's system and enrich the blood, laxatives to regulate the bowels and ingredients for expelling worms.

Right now is the time to feed Dr. Hess Stock Tonic, because it's the cow in the pink of condition that fills the milk pail, the steer with an appetite that lays on fat, the horse that digests its dinner that pulls on the bit, the hog that is well and worm-free that gets to be a 200-pounder in six months.

So sure am I that Dr. Hess Stock Tonic will put your animals in a thriving condition, make the ailing ones healthy and expel the worms, that I have authorized my nearest dealer to supply you with enough for your stock, and if it does not do what I claim, return the empty packages and get your money back.

Dr. Hess Stock Tonic is never sold by peddlers—only reliable dealers; I save you peddler's salary and expenses, as these prices prove: 25-lb. pail \$2.25; 100-lb. sack \$7.00. Smaller packages in proportion (duty paid).

Send for my book that tells all about Dr. Hess Stock Tonic—it's free.

**DR. HESS & CLARK, Ashland, Ohio**

**Dr. Hess Poultry Pan-a-c-e-a**

This is the time when egg prices are high and your hens ought to be making up for the small egg crop during moulting. Pan-a-c-e-a tones up the dormant egg organs and makes hens lay. Also helps chicks grow. Economical to use—a penny's worth is enough for 10 fowl per day. 14 lbs. 35c; 5 lbs. 85c; 25-lb. pail \$3.50 (duty paid). Guaranteed.

**Dr. Hess Instant Louse Killer**

Kills lice on poultry and all farm stock. Dust the hens and chicks with it, sprinkle it on the roosts, in the cracks or, if kept in the dust bath, the hens will distribute it. Also destroys bugs on cucumber, squash and melon vines, cabbage worms, slugs on rose bushes, etc. Comes in handy sifting-top cans, 1 lb. 35c, 5 lbs. 85c (duty paid). Guaranteed.

We have a full line of **BULLS AND FEMALES**

on hand. We have nothing but the best Scotch families to choose from. Our cows are good milkers.

**A. F. & G. Auld, Eden Mills, P.O.** Guelph, 5 Miles  
Rockwood, 3 Miles

**Robert Miller Pays The Freight**

Young Shorthorn bulls of Showyard Quality, sired by Superb Sultan and other great imported sires, from the best imported and Scotch bred cows to be found—some of them great milkers, ready to sell at moderate prices, and delivered at your home station. Cows and heifers supplied too, write for what you want.

**ROBERT MILLER, STOUFFVILLE, ONT.**

**Escana Farm Shorthorns**—100 head in the herd, which is headed by the noted herd at 1914 Toronto National Show, and Raphael Imp., grand champion at London Western Fair, 1913. For sale: 20 bull calves, 9 to 14 months old, several in show form; also 20 cows and heifers.

**MITCHELL BROS., Props., Burlington P.O., Ont.**  
JOS. McCRUDDEN, Manager. Farm 1/2 mile from Burlington, Ont.

**PLEASANT VALLEY FARMS SHORTHORNS**

Herd headed by Imp. Loyal Scot. Have for sale, 10 high-class young bulls of herd heading quality and several of the milking type. Also females of the leading families. Consult us before buying. Farm 11 miles east of Guelph.

**GEO. AMOS & SONS, MOFFAT, ONTARIO**  
C. P. R. 1/2 mile from station

**SHORTHORNS and CLYDESDALES** We have a nice bunch of bull Sept., and are offering females of all ages; have a choice lot of heifers bred to Chasman—\$7800—One stillborn three years old, a big, good quality horse, and some choice fillies, all from imported stock.

**A. B. & T. W. Douglas, Long-Distance Phone Strathroy, Ontario**

**Scotch—SHORTHORNS—English** If you want a thick, even fleshed heifer young cows with calves at foot, or a thick mellow beautifully-fleshed young bull, or a right good milker bred to produce milk; remember I can surely supply you wants. Come and see.

**A. J. HOWDEN, Myrtle, C.P.R.; Brooklyn, G.T.R. COLUMBUS, P.O., ONT.**

**Brampton Jerseys** We are busy. Sales were never more abundant. Our cows on yearly test never did better. We have some bulls for sale from Record of Performance cows. These bulls are fit for any show ring.

**B. H. Bull & Son, Brampton, Ontario**

**Don't Sell the Young Calf**  
**BLATCHFORD'S CALF MEAL**  
 Will Raise It Without Milk



There's big money and little trouble in raising your calf the Blatchford way. You save all the milk of the cow for market. As soon as the mother cow's milk is ready to sell, the calf is ready for **BLATCHFORD'S CALF MEAL**. For over a century the **Recognized Milk Food for Calves, at One-Fourth the Cost of Milk**. Composed of eleven different ingredients carefully apportioned and thoroughly cooked, producing a scientifically balanced ration for the young calf. Successfully used on thousands of American farms for over 30 years.

**The Only Milk Equal Made in an Exclusive Calf Meal Factory. Unlike any of the So-Called Calf Meals Made of Raw Cereal By-Products.**

Write for Free Illustrated Book on "How to Raise Calves Cheaply and Successfully Without Milk."  
**BLATCHFORD'S CALF MEAL FACTORY**  
 Steele Briggs Seed Co. Toronto Waukegan, Ill.

**Cotton Seed Meal**  
 Good Luck Brand Guaranteed 41% Protein.  
 Write for quotations.  
**H. FRALEIGH, Box 1, FOREST, ONT.**  
 Also dealer in Flax Seed and Linseed Meal.

**Ridgedale Holsteins**  
 The herd is headed by King Segis Pontiac Duplicate, a 34 brother to King Segis Pontiac Alcarta, the \$50,000 bull. The junior herd bull is Pontiac Hengerveld Pietertje, we have a few young bulls and heifers for sale.  
**R. W. WALKER,**  
 R. R. NO. 4, PORT PERRY, ONT.  
 Myrtle Station, C. P. R.; Manchester, G. T. R.

**War! War!! War!!!**  
 NEVERTHELESS, NOTWITHSTANDING  
**The Norfolk Holstein Breeders' Sale**  
 Simcoe, February 11th

**Great Yearling Holstein Bull For Sale**  
 out of the cow Victoria Burke with the wonderful record of 106 lbs. milk in 1 day, 686.6 lbs. in 7 days, 2,538.2 lbs. in 30 days and 30.82 lbs. of butter in 7 days, 122.08 lbs. of butter in 30 days. This cow ranked fourth in 1913 Records, 30 day class. The sire of this bull is sired by Fairview Korndyke Pontiac with ten sisters all with records over 30 lbs. butter in 30 days. Come and see or write:  
**JAMES A. CASKEY, MADOC, ONT.**

**Maple Grove Holsteins**  
 Do you know that Tidy Abbekirk is the only cow in the world that produced three sons who have each sired 30-lb. butter cows, and two daughters with records greater than her own? She was bred, reared and developed at Maple Grove. Do you want that blood to strengthen the transmitting power of your herd, at live and let live prices, then write:  
**H. BOLLERT,**  
 TAVISTOCK, ONT. R. R. NO. 1

**The Maples Holstein Herd**  
 offers ready for service sons of Prince Aaggie Mechthilde from R.O.P. and R.O.M. sisters and dam of Duchess Wayne Calamity 2nd, Canadian champion 2-year-old for butter in R.O.P. 167.14 lbs. milk 846 lbs. butter. Also choice females of like breeding. Write:  
**Walburn Rivers, R. R. No. 5, Ingersoll, Ont.**

**Alancroft Dairy & Stock Farm**  
 BEACONSFIELD, P. Q., CANADA  
 A FEW  
 Pure-bred Ayrshires and  
 Pure-bred French-Canadian  
 Bulls for Sale.  
 Correspondence or visit solicited.  
**E. A. SHANAHAN, Secretary,**  
 Merchants Bank Building, Montreal Canada

**Dungannon Ayrshires**  
 The average milk yield of our herd is 10,000 lbs. annually for all ages. High-class in breeding and individuality. Young bulls, cows and heifers for sale. **W. H. FURBER, COBOURG, ONT.**

**Prize-Winning Ayrshires For Sale**  
 Bred on particularly good lines. Will sell females of all ages, also bulls from calves up, sired by Hutchies Scotch Earl (Imp.). Prices reasonable.  
**W. G. HENSMAN, R. R. No. 4, Essex, Ont.**

Complete—"Was your Christmas present in the nature of a surprise?"  
 "I should say so. It was just what I wanted."—Judge.

Personality is of no use whatever if it does not inspire confidence; and confidence that is to last can only be based on integrity.—Raip, Fro-T.

**Questions and Answers.**  
 Miscellaneous.

**Navicular Disease.**  
 Will you kindly state, through your columns, what to do for a horse which has a contracted hoof, and is a little lame? He has been bare-footed for some time?  
 H. W.

Ans.—The symptoms indicate navicular disease, and there is little hope of a recovery. The symptoms can be relieved, to some extent, by repeated blistering. Take two drams each of cantharides and biniodide of mercury, and mix with two ounces vaseline. Clip the hair off for two inches high all around the hoof. Tie so that he cannot bite the parts. Rub well with the blister daily for two days. On the third day wash off and apply sweet oil. Let him loose in a box stall now, and oil every day. Repeat the blistering every four weeks for a few months.

**Bitter Milk.**  
 Could you tell me what makes the milk go bitter after standing for 24 hours? We feed silage and grain. We milk before feeding.  
 R. F. M.

Ans.—Bitterness developing in milk when twenty-four hours old, is invariably due to the growth in such milk of some bacterium or yeast. It would not be possible to say which without an examination of the milk itself. There are a number of different bacteria, and at least one species of yeast, which have this property of producing bitterness. The source of daily seeding of the milk probably lies in some of the dairy utensils, though the germ may possibly be derived from the teats, growing just within the teat opening. It would be advisable to thoroughly clean all dairy utensils, pithers, etc., and sterilize them by boiling, or by a prolonged use of boiling water. Also, thoroughly cleanse the milk shelf, and keep the milk on the shelf away from other foods. If, after repeating this for three or four days the bitterness continues, it is safe to assume that the infection comes from the cow. In such a case, it would be found almost impossible to get rid of the trouble, though if the cow is dried, she probably will be free from the infection when she starts milking again.

**Barn Construction.**  
 I have had my barns burned, and I am going to build a barn 80 x 44 next summer.

1. Which is the better barn to build, a plank-frame or a timber-frame? Which will cost the most, and what is the difference in cost?
2. What are the names and addresses of lumber companies where I could get plank?
3. Enclosed, you will find a plan of the barn I was thinking of building. I am raising Shorthorns and grade cattle. Would this plan of a barn be suitable for me, as some of the cows raise their own calves, and some are hand-milked, and some cattle are fattened also. Would you print the plan of a barn on the same principle as the plan I sent?
4. Are cattle better running loose or tied up? The pens in the plan are divided by gates. Are these suitable?
5. Which are the best for a foundation, cement blocks or the solid wall? Will the blocks let water through?

Ans.—1. We cannot say; either, properly built, is satisfactory, and both are in common favor, but the plank-frame barn is growing in popularity. Get your contractor to figure out the quantities of material required for each, and give you an estimate of cost.

2. We cannot give such free advertising. There are several in London which is not far from your home.

3. The plan is a very good one, and no one knows better than yourself what will suit your requirements. It would appear at a glance to have a large proportion of loose stalls, but this may not be a mistake in the barn you need. During this winter we shall endeavor to publish several barn plans.

4. It is generally considered that running loose is preferable. However, properly cared for there is little difference. Gates are suitable in partitions.

5. The solid wall.

**60 Registered Holsteins 60**  
 Head BY AUCTION Head  
**A complete dispersion of the Woodbine Herd**  
**Wednesday, Jan. 20th, 1915**

We have in this sale the results of 30 years breeding and careful selection, they are nearly all young; 30 are sired by Duke Beauty Pietertje, a son of a 32 lb. cow, and a G. son of a 30 lb. cow; he is backed up by 3 generations of 30 lb. cows. A number of others are daughters of King Segis Pontiac Lad, record of his sire's dam 37.21 lbs.; his dam is a sister to the World's Champion, K.P. Pontiac Lass, 44.18 lbs., this kind of breeding has cost us a lot of money but it goes at the sale. On day of sale we will meet the C.P.R. Trains at Ayr. The G.T.R. Trains and Electric Cars from Galt and Brantford, at Paris.

**Terms:—12 mos. on Bankable Paper, 6% off for Cash.**  
 For Catalogue write:  
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**T. IRVING, WINCHESTER, ONT., Auctioneer.**

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 MILK and MEAT specific producer in 5-lb. boxes. This is compounded with such ingredients that it will increase MILK production from 10 to 25% without exhausting milk glands which it will keep in the best condition from one calving to another.  
 One thousand 5-lb. boxes ready to ship, prepaid by mail to any point in Ontario or Quebec on receipt of 60c in stamps per box. Give it a trial. Write for literature.  
**The National Stock Food Co. Ltd., Ottawa, Ontario**

**LAKEVIEW HOLSTEINS**  
 Senior herd bull—Count Hengerveld Fayne De Kol, a son of Pietertje Hengerveld's Count De Kol and Grace Fayne 2nd. Junior herd bull—Dutchland Colantha Sir Mona, a son of Colantha Johanna Lad and Mona Pauline De Kol. Third bull—King Canary Segis whose sire is son of King Segis Pontiac, and whose dam is 27-lb., three-year-old daughter of a 30-lb. cow. Write for further information to:  
**E. F. OSLER, BRONTE, ONT.**

**SUMMER HILL FARM**  
**Holstein Cattle and Yorkshire Hogs**  
 We offer for sale a dozen bulls, some ready for service, from high official record dams. If you are wanting a bull, better write us and let us tell you how good they are. Can also spare a few good heifers. Yorkshire hogs all ages.  
**D. C. FLATT & SON**  
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**Riverside Holsteins**  
 Herd headed by KING JOHANNA PONTIAC KORNDYKE, a grandson of PONTIAC KORNDYKE, and a brother of PONTIAC LADY KORNDYKE, 38.02 lbs. butter in 7 days, 156.92 lbs. in 30 days—World's records when made.  
**J. W. Richardson, R. R. No. 2, Caledonia, Ontario**

**Sunny Hill Holsteins**  
 Herd sires: Pontiac Segis Avondale, grandson of King of the Pontiacs, 8 of his mature dams average over 30 lbs. butter in seven days; Pontiac Wayne Korndyke, whose dam, sires dam and ten sisters of sire average over 31 lbs. in seven days. Bull Calves for sale.  
**WM. A. RIFE, HESPELER, ONT.**

**Holstein Cattle** (Prince Hengerveld of the Pontiacs, herd sire.)  
 Stock for sale. Large herd to select from  
**Hamilton Farms, St. Catharines, Ontario**

**OURVILLE STOCK FARM**  
 Offers: Five bulls ready for service, sired by Royalton Korndyke Duke, whose dam gave 31.76 lbs. butter in 7 days. All are from tested dams.  
**LIDLAW BROS. R. R. No. 1 AYLMEER, ONT.**

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 We offer at the Tillsonburg Sale—12 young Holstein females, some fresh and others heavy in calf, and two young bulls. At present we have for sale, one bull fit for service from a 33-lb. cow, and several young calves, both sexes; come and inspect or write.  
**M. L. HALEY, M. H. HALEY SPRINGFORD, OXFORD CO., ONT.**

**WILLOWBANKS HOLSTEINS**  
 Herd headed by King Korndyke Inka De Kol (Imp.) No. 18545 C.H.F.H.B., 115016 A.H.F.H.B., who has more 30-lb. sisters than any other bull, excepting other sons of Pontiac Korndyke. Stock for sale.  
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**P. D. McARTHUR'S AYRSHIRES**  
 In official record, high-testing Ayrshires, that have won scores of prizes, I can surely supply your wants, over 50 to select from. Young bulls of super-breeding on record producing lines, also the 3-year-old stock bull, Imp. Whitehall Freetrader.  
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**Stonehouse Ayrshires**  
 Hector Gordon, Howick, Quebec  
 Are a combination of show-yard and utility type seldom seen in any one herd. A few choice young males and females for sale. Write or phone your wants to Stonehouse before purchasing elsewhere.

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Some right good young Angus bulls and heifers for sale.

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**Sheep, Swine and Seed Corn**—Young stock of both sexes in Dorset Horn and Shropshire sheep, and in Swine: Poland Chinas, Duroc Jerseys, Berkshires and Chester Whites. Also Seed Corn, all varieties. Consult me before buying. Cecil Stobbs, Leamington, Ont. Phone 284. M.C.R., P.M. and Electric Ry.

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Several very choice sows bred for early spring litters; also one boar ready for service.

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My specialty for sale just now is young bred sows and others of breeding age. G. sires and G. dams all imported; these are choice young sows.

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Champion herd at Toronto and London Fairs; also Dorset Horn Sheep—Young Stock of both sexes for sale; a few two-year-old rams.

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**Hampshire Swine and Lincoln Sheep**

Both sexes and all ages from imported stock. Prices reasonable.

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Boars ready for service. Sows and pigs of all ages for sale; registered. Write for prices before buying elsewhere.

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Sows bred, others ready to breed; boars ready for service: 200 from six to twelve weeks old, both sexes, pairs not akin. All breeding stock Imp. or from Imp. stock. Prices reasonable.

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**CHESTER WHITE SWINE**

For Sale—High class sows from 9 to 18 months of age bred to farrow in March. Also my stock boar Nimble Sam, 21 months old, a right good hog. Another 6 months old. JOHN POLLARD, Norwich, Ont. R.R. No. 4

**BERKSHIRES FOR SALE**

Registered boars and sows weaned, straight and thrifty, from prize-winning stock on either side at Toronto, London and Guelph Winter Shows, 1913. \$10 each. Ira Nichols, Box 988, Woodstock, Ont.

**Morrison Tamworths and Shorthorns**

Bred from the prize-winning herds of England. A choice lot of young boars fit for service and also young sows bred, and also a choice lot of young bulls and heifers bred by Froude Lovelock. Imported from choice sows. Chas. Currie, Morrison, Ont.

**CLEARVIEW, CHESTER WHITES**

For many years my herd has won the highest honors at Toronto, London, Ottawa and Guelph. For sale are both sexes of any desired age, bred from winners and champions.

D. DeCoursey, Mitchell, Ont. R. R. No. 5

**Questions and Answers. Miscellaneous.**

**Ringworm, Meal.**

1. I had a steer on rape. He took ringworm; has spots on his head and neck. I have tried different treatments, but have done no good. Could you give me a cure?

2. Is \_\_\_\_\_ any good for horses? If so, how often should it be fed, and what quantity?

Ans.—1. Isolate the steer. Soften the scales with sweet oil, then remove them, and apply tincture of iodine once daily. 2. Write the manufacturers. We have used this meal for other stock and found it satisfactory.

**Building and Other Queries.**

1. As I am building a new barn and stable, I want to find out which is the better, to double-board and tar-paper inside just the height of stable and one ply of boards on the outside, tongued and grooved, or the opposite, two ply outside and one ply inside, as this is a frame building?

2. Would you put two ply of rough lumber or one ply of tongued and grooved for floor over stable?

3. How high should a stable ceiling be?

4. Could you tell me the best system of ventilation, and explain how to put it in?

5. My barn is to be 114 feet long by 36 feet wide, 60 feet in center for cow stable; stable bents will be 12 feet. How many windows would you put in a stable like this, and what size?

6. Would I need to put in two sets of beams in this barn, as I am putting on a hip roof, and my main posts are 16 feet long?

7. Which is the better and cheaper for siding, \_\_\_\_\_ or lumber?

8. Which is the better and cheaper hay-fork track, steel or wood?

9. A four-year-old driving mare that never seems to gain up in flesh, eats and drinks well, gets the same amount of grain as the rest of the horses always in good heart. What could I give her to make her gain in flesh? Is driven very little.

10. What is a good remedy for lice on cows? I am bothered every winter with them.

11. Would you advise putting double-glass in frames for stable, so they would not frost up in winter? R. W.

Ans.—1. As far as dryness and warmth are concerned, we can see no advantage in placing the double coating of boards either on the inside or the outside. The outside appearance of the stable would be better with the matched stuff placed thereon, and it would be easier to paint. On the other hand, the inside could be kept cleaner and more sanitary if the matched material were placed on the inside.

2. We do not see that it matters. We would use whichever was the most economical.

3. About nine feet is a good height.

4. The King system, the Rutherford system, or a combination of the two is good. Ventilating systems have been described many times through these columns. We would advise that you write Prof. Grisdale, of the C. E. F., Ottawa, Ont., for the latest bulletin on stable construction, which outlines systems of ventilation.

5. We cannot say, but of this we are sure, that it is always best to get as much light as possible.

6. We would advise you to see your carpenter or contractor regarding the numbers for your barn.

7. Get your contractor to figure out the amount of lumber for siding, and then get figures from the iron manufacturers and compare them, remembering, of course, durability.

8. Either is satisfactory. The comparative costs may be had from manufacturers of the different tracks advertising in this paper.

9. It is possible that the horse's teeth need attention. Very often a horse of this age is hard to feed on account of feeding troubles.

10. Apply some of the proprietary powders mentioned in this paper, or use a mixture of four parts common cement to one of kieselguhr. Work this well into the skin with a comb or brush. Two or three applications will be necessary. Also clean up the stables and whitewash.

11. We do not see that it is necessary.

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Increase your profits from stock-raising and dairying by using CALDWELL'S STOCK MEALS. These guaranteed feeds result in a quick improvement in your herds. We print and publish a careful analysis of each meal, besides guaranteeing all ingredients to the Government.

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contains 84% Pure Cane Molasses and 16% Edible Moss. It is a fully-balanced ration for the upbuilding of cattle, horses, sheep and hogs, furnishing valuable feed elements that are lacking in ordinary diet. Makes everyday feed more palatable and beneficial, and reduces feed bills. Write for free booklet.

**CALDWELL'S Cream Substitute CALF MEAL**

is a scientifically-prepared food for young calves, fully as good for them in every way as whole milk. It contains Linseed, Wheat, Oat, Corn, Locust Bean, Pea and Molasses Meal in right proportions to ensure best results. Enables you to raise calves without having to sacrifice good whole milk. Booklet free.

**CALDWELL'S DAIRY MEAL**

will increase milk yields and maintain your herd in prime condition. It is a carefully-proportioned cow ration for the production of milk. Contains Gluten Feed, Cottonseed Meal, Dried Grains, Barley, Malt Combs, Molasses Meal, forming a beneficial, high protein feed that will cause your herd to thrive. Booklet free on request.

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LARGEST FEED MILLS IN CANADA  
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"The Old Established Flock in America"

We are making a Special Offer for 30 days of 50 fine registered yearling ewes bred to an imported ram to lamb in April. Also 50 ram lambs amongst them, a lot of big, strong fellows for flock-headers. Also a few nice ewe lambs, and a few good Hampshire ram lambs. C.P.R., Guelph and Arkell. Phone: Guelph, 240 ring 2. G.T.R., Guelph St. and Telegraph

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**Maple Villa Oxford Down Sheep Yorkshire Hogs**

Sired by Adonis Imp. 57495, and out of ewes that have won many prizes at big and local shows. I have high-class flock-headers and high-class ewe lambs, also shearlings, of both sexes. Yorkshires both sexes, any age.

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I have now for sale 30 extra large, well covered shearing rams, 100 shearing ewes and a very fine lot of lambs from my imported ewes. We are pleased to book orders for delivery later of any kind wanted.

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From our prize-winning herd of large English Berkshires we have a particularly choice offering in young boars and sows. Many of them now at breeding age. Order early and get a choice selection.

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Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin at reasonable prices. All breeding stock imported or from imported stock from the best British herds. Write or call. H. J. Davis, Woodstock, Ont. Long-Distance Phone. C.P.R. and G.T.R.

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In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood.

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From our recent importation of sows, together with the stock boar Suddon Torredoo we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.

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**Canada's Champion Herd of Registered Hampshire Swine**

This herd has won over 90% of all prizes offered for the breed at leading Ontario Fairs. Write for particulars and prices.

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**Sunnybrook Yorkshires**

If you want good herd sires or dams, write or come and see those bred from Elton Duke, who won five Champion-not akin. Stock guaranteed as represented.

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Boars and sows all ages, sows bred, others ready to breed, all descendants of Imp. and Champion-imp Stock. Several choice young bulls from 10 to 16 months old and a few calves recently dropped, all at reasonable prices.

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Will Grow Your Crops at Less Cost Than Any Other Fertilizer Available to Ontario Farmers.

That is a strong statement to make, and, if every farmer believed it, the demand for our goods would be greater than the supply. You say every man selling fertilizer in Ontario tells the same tale. Quite true, but Basic Slag is different from any other fertilizer ever sold in Ontario. Let us give you a few facts:

1. Basic Slag is no untried fertilizer. It has been used in Europe in increasing quantities for about 30 years, the world's consumption in 1913 being three and a-half million tons.
2. Basic Slag has been used in the Maritime Provinces for the last fifteen years. The farmers of Nova Scotia applied fifteen thousand tons to their lands last season, the Annapolis Valley alone using five thousand tons for fruit growing.
3. Basic Slag has been introduced into Quebec during recent years, and the consumption increased last season to six thousand tons.
4. Basic Slag was first introduced into Ontario in 1913, when 250 tons were sold experimentally. As the result the consumption last spring was over 1,000 tons. During the coming season, basing on business already done, the sales will not be less than 3,000 tons.
5. Basic Slag liberates the potash which exists in practically all heavy soils, thus rendering the farmers independent of the German supply.
6. Basic Slag costs the farmer about \$10 per ton less money than any fertilizer he has hitherto used.

If these facts have any significance, it is surely worth your while to get an experience of Sydney Basic Slag this season. If we have no agent in your district, we will send you a ton direct from the factory for \$20, delivered free at your station, cash with order.

This price leaves us a loss on account of the heavy freight on small lots, but it is worth something to us to get our goods introduced into your district. What would be better still is for you to take a carload of 20 tons and distribute same among your neighbors. If you think you could do so, drop us a line and our general sales agent will give you a call at once and talk the matter over.

Descriptive literature and all particulars on application to:  
**THE CROSS FERTILIZER CO., LTD.**  
SYDNEY, NOVA SCOTIA

## Price Need Not Stand in the Way

Don't let the question of price prevent you from owning a **Spramotor** and getting better crops. We make a **Spramotor** as low as \$6 and from that all the way up to \$350. Our \$6 outfit is as good value in proportion as the \$350 machine. There's a



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It isn't a SPRAMOTOR unless we made it

for every need—the small farmer and the thousand-acre man. The sprays at high pressure. We

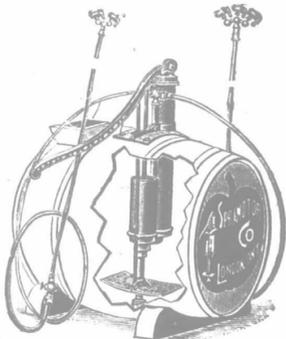
knapsack outfit at the left is all high-grade and guarantee it to spray paint, whitewash and chemicals. The **Spramotor** is all brass with dashing agitator around screen, automatic plunger, brass ball valves, and patent hand valves. The price is \$12 with 5-gal. galvanized tank, or \$15 with 5-gal. brass tank.

Barrel outfit consists of all-brass No. 2 **Spramotor** with two 10-foot lines of hose, couplings attached, patent hand valves, two bamboo extension rods with brass cupped ends and patent drip guards, two double-nozzle clusters, complete and guaranteed. Price, \$26.00. Can be used for all kinds of work.

**Free** Write us giving some idea of your spraying needs. In return we will mail you without charge a copy of our valuable illustrated treatise on Crop Diseases, also details of a **Spramotor** best suited to your requirements.

Made in Canada—No Duty to Pay

**B. H. Heard Spramotor London, Can.**  
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## Read this New Fertilizer Booklet

WE would like the readers of this publication to get a copy of our new Fertilizer Booklet and read it. We know they will be fully repaid for doing so.

The Booklet treats the fertilizer question in a simple, frank and understandable manner. Let us quote you one paragraph from page 9 of the Booklet. It says:—

"The fertilizer question has long been a vexing one and, until recent years, accurate information regarding the different fertilizers and their functions in relation to soils and crops has not been available. Experience is an excellent teacher, still definite knowledge is greatly to be desired, and will mean a great deal to everyone interested in the products of the soil."

The Booklet then proceeds to give definite knowledge about soils, plant foods, crop requirements, and the various kinds of fertilizers, such as ground bone, blood, animal tankage, lime carbonate, ground peat, acid phosphate, nitrate of soda, potash, sulphate of ammonia, hardwood ashes, sheep manure, etc.

Everyone who reads this Booklet carefully will gain a big fund of useful knowledge about the fertilizer question. He will know how to fertilize intelligently. And every farmer should do his utmost to grow bigger crops than ever while the war is on.

Take our advice and write for our new Fertilizer Booklet right now before you've a chance to forget doing so.

Yours for Bumper Crops,

**THE ONTARIO FERTILIZERS, LIMITED**  
WEST TORONTO, ONT.

## Patriotism and Production

The Duty and the Opportunity of Canadian Farmers

### AGRICULTURAL CONFERENCES

Will be held throughout Canada to explain and discuss conditions in countries where live stock and agricultural production will be affected by the war.

Agricultural specialists are now making a study of agricultural production throughout the world, and will be prepared to place information before the farming community.

The information given will be of value to all farmers and other business men.

The dates and places of conferences will be announced later. Information and details may be secured by addressing:

### AGRICULTURAL CONFERENCES

Care of Dominion Department of Agriculture, OTTAWA, or any of the Provincial Departments of Agriculture

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30 Egg Incubator and Chick Brooder BOTH FOR \$3.90 Freight and Duty PAID

If ordered together we send both machines for only \$13.90 and we pay all freight and duty charges to any R. R. station in Canada. We have branch warehouses in Winnipeg, Man., and Toronto, Ont. Orders shipped from nearest warehouse to your R. R. station. Hot water, double walls, dead air space between, double glass doors, copper tanks and boilers, self-regulating. Nursery under egg tray. Especially adapted to Canadian climate. Incubator and Brooder shipped complete with thermometers, lamps, egg testers—ready to use when you get them. Ten year guarantee—30 days trial. Incubators finished in natural colors showing the high grade California Redwood lumber used—not painted to cover inferior material. If you will compare our machines with others, we feel sure of your order. Don't hesitate to do this—you'll save money—it pays to investigate before you buy. Remember the price of \$13.90 is for both incubator and brooder and covers freight and duty charges. See the enclosed catalog today, or send in your order and save time.

BOTH FOR \$13.90 FREIGHT and DUTY PAID



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Please mention THE FARMER'S ADVOCATE

# 10,000 Farmers Wanted

To Stand Behind The Sarnia Metal Products Co., Limited,  
and The Organized Farmers in a Great  
Co-Operative Proposition

WE want every farmer in Canada that contemplates using Corrugated Iron, Metal Shingles or any other Sheet Metal Building Materials, to write us at once for information of our new co-operative plan, by which we are supplying the farmers of Canada with Sheet Metal Building Materials at the lowest possible cost.

**\$25.00 to \$50.00 Saved Every Farmer**

**QUALITY :** We guarantee the galvanized iron used in the manufacture of Sarnia Metal Products to be equal to that of any iron used by any manufacturer in Canada in the manufacture of similar lines of roofing products which they are selling to the farmer, at the time of advertising, at an advance of 25 to 50 per cent. above the price we are quoting. And please remember that all Sarnia Metal Products are made from galvanized iron of a quality specified by the organized farmers themselves.

**PRICE :** By an agreement with the farm organizations we have agreed to supply all farmers with sheet metal building materials at a small percentage in advance of the cost of our raw materials, leaving the control of the selling price in the farmers' hands. We have estimated our profits on a very large volume of business, and every order you send us will help in making our price still lower.

**SERVICE :** Our factory at Sarnia, just completed, is the most modern factory in Canada for the manufacture of the lines we offer, and we carry such large stocks and are situated in such an advantageous location that it is possible for us to make the quickest possible delivery of orders.

## A VITAL QUESTION

If approached by another company or its agent in an endeavor to sell you Corrugated Iron, etc., simply ask them what they would supply you the same material for, if it were not for the Sarnia Metal Products Co., Limited, and its co-operative plan. We have some information in regard to the plan used in the endeavor of others to head off our business, which proves very interesting reading.

If you contemplate the erection of any new buildings or the re-roofing of any already built, please send us a rough sketch, and we will do the rest.

WRITE AT ONCE TO HEAD OFFICE

**The Sarnia Metal Products Co., Limited**

100-100-100

SARNIA, ONT.

A Co-operative Company of Ontario