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THE FARMER'S ADVOCATE
 AND HOME MAGAZINE

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AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.

Director Central Exp. Farm
Dec 31 18

Vol. LI.

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LONDON, ONTARIO NOVEMBER 2, 1916.

No. 1258

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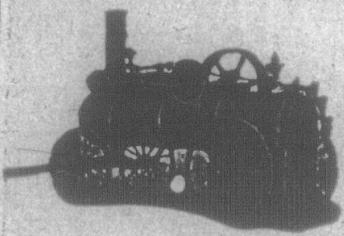
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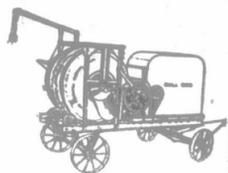
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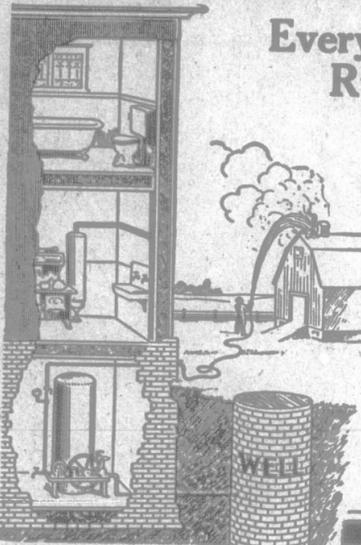
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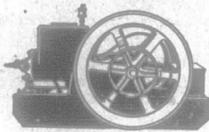
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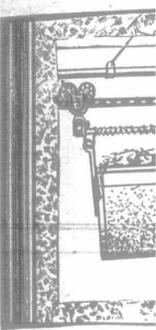
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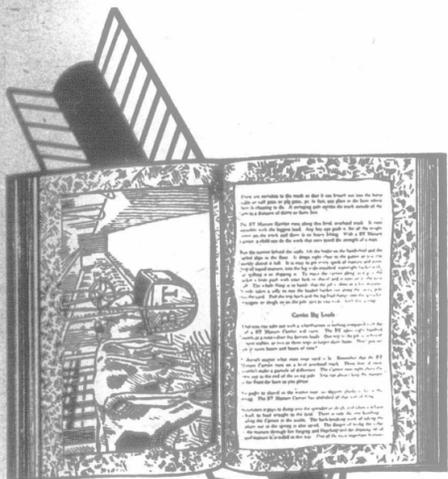
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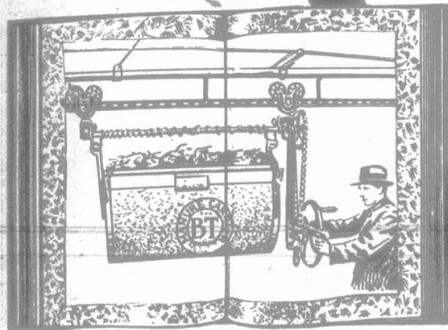
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Clean ou



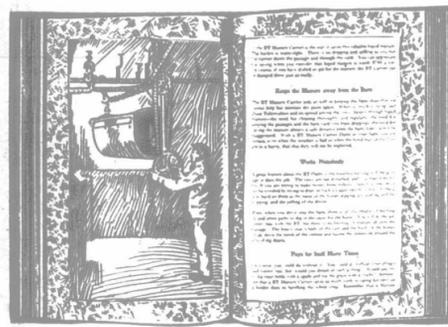
Load up in a jiffy



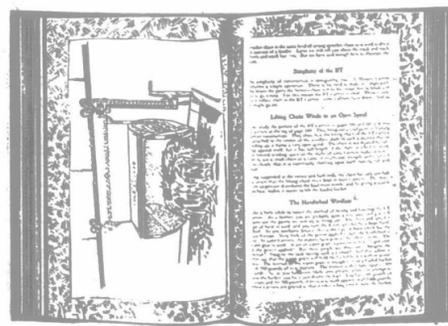
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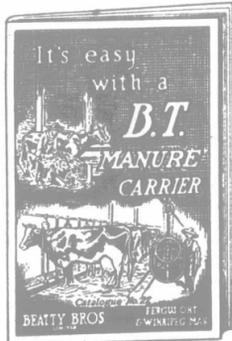
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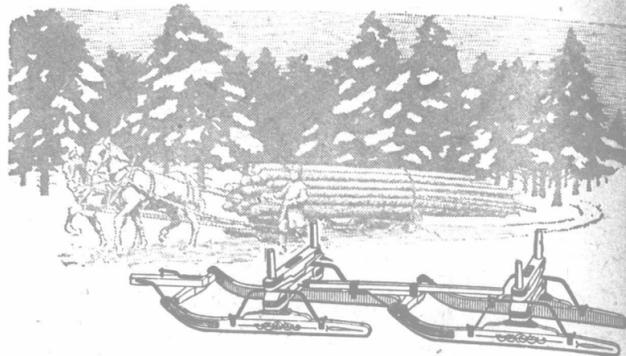
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1863

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LONDON, ONTARIO, NOVEMBER 2, 1916.

1258

EDITORIAL.

In the fight for liberty there can be no shirkers.

Another winter in the trenches! Keep up the supply of comforts.

Unfitted stock finds as little favor in a sale ring as in a judging ring.

Good management is just as responsible for success as is hard work.

The wailing winds warn that winter approaches. Rush the fall work.

The stable is a good place for the stock on chilly, raw November nights.

Getting soil ready for winter is a big factor in connection with next year's crop.

More attention should be paid to fecundity in the selection and breeding of live stock.

Honesty is the best policy—even for politicians. It is well for them and for Canada that they are finding it out.

The farmer feeds them all and gets unmerited abuse because he doesn't do it for nothing, or at least at a loss to himself.

The bigger the acreage of fall plowing done, the earlier seeding will be finished next spring, and early seeding means bigger yields.

When votes are wanted the farmer is the backbone of the country, but when laws are made and tariffs struck the country has no backbone.

If you sell all your cows and pigs this fall when grain is scarce, what will you do for cows and pigs next fall when grain may be plentiful?

It is not the brightest outlook when stocker and feeder cattle are being killed rather than finished. Watch the trend of affairs next summer.

A dairy cow without a record is an "also ran." Put her milk on the scales and if she is found wanting replace her. Feed is too expensive to waste on boarder cows.

Two cows and six hens, if they milk and lay well, are at present prices for eggs and dairy products about all a farmer needs, but then they are all he can feed on this year's crop, so there you are.

Frustrated nearer home, the Kaiser tries his submarine nightmare off the American Atlantic coast. Wilhelm, it won't work anywhere! The spirit of the Allies in this fight for liberty will not sink.

It is a rule of the law of supply and demand that when the producer has little to sell prices are high. It is too bad those who blame the farmer for everything could not understand this simple truth.

When those in charge of recruiting this winter are seeking out the men who should join the colors, they should not forget the pool rooms and dance halls. There is a bigger and more important game going on in Europe than pool or dancing. Let every man ask himself what he has done to help win it.

Who Pays the Duty?

The old question of who pays the duty is more pertinent than ever now that the agitation against the high cost of living is at its height, and people are at the same time asked to save all they can. The worst feature of indirect taxation is that it seems so indirect, while in reality it is direct in so far as the consumer of affected articles is concerned. Who pays the duty? Why, the consumer of the manufactured or other dutiable article every time. The other day an agent called upon us to sell a very useful piece of farm machinery at a price of \$375. It was made in the United States. We happened to ask what the same article sold for across the border, and his reply was \$275 f. o. b. place of manufacture. The Canadian farmer must pay \$100 more, less the freight, for this one piece of farm machinery than does the United States farmer. To the man living just outside of Windsor the price of the same identical article laid down is nearly \$100 more than to the man across the river, just outside Detroit. When you come to think of it, the consumer of such an article—the farmer who uses it—pays a pretty heavy tax for the privilege. We recently read a paragraph in a leading daily which claimed that the people were clamoring for a removal of the tariff on imported foodstuffs and asserting that the farmers wouldn't mind because they understood that manufacturers of prepared foods were reaping the benefit. If the consumer of manufactured foodstuffs pays the duty, is it not just as true that the user of imported farm machinery, implements, tools, manufactured foodstuffs and dozens of other things on the farm pays the duty, which is a real tax? Every time in every country where duties abound the consumer pays and the farmer, being a heavy user of dutiable articles, pays a big share. How many hundreds of dollars do you pay yearly in duty to protect some other fellow with thousands where you have hundreds, or even dollars? You can depend upon it that the manufacturer here will not sell Canadian manufactured goods any cheaper in this country than will the same articles he sold by the outside manufacturer. If you could figure it all out you would know how much you are taxed, just indirectly enough to keep you quiet. Since confederation, both political parties have built up or fostered this means of financing the country, largely at the expense of the farmer. The user pays.

A Cell in the Social Organism.

The farmer of a few years ago was a cell in the social organism. The farmer of to-day is pretty much of a sell (spell it with an "s") in so far as rural social conditions tending to improvement are concerned. In former times the farmer and his family found time to drive over and visit neighbor Jones, neighbor Smith, and several other neighbors, and some who resided almost too far away to be called neighbors, but yet were neighborly. To-day, the farmer, his wife and family think they can find time for no such nonsense, (or good sense), and farmers seem destined to know as little of their next door neighbors and other farmers living round about as some haughty city people know of the people next door—they don't know them and don't want to. Under such conditions it is a difficult problem to promote a campaign for improved rural social conditions. Canadian farmers seem too busy and too independent to be sociable. The old-time parties, husking-bees, wood-bees, plowing-bees and so on are no more. While the men worked, in those days, the women cooked together, and, after justice had been done to the meal at the end of the day the real good time started. The cooking was home-made, as so was the fun, and wholesome for men and the

community. Young people then took an interest in country life—particularly that of their own circle. All this seems to have passed from the land. Work bees are few; and voluntary, natural social evenings are fewer. John says "Good day", to William, and William says, "Good day", to John and they pass by *a la* city-pavement fashion. They never visit. They are too busy and haven't time to get well enough acquainted with their fellowman to properly appreciate him. We are getting too self-centred and independent, too busy chasing the dollars, too absorbed in work and worry, too afraid of our fellowmen for the good of our own rural social conditions. The country has tried to ape city ways and has succeeded to such an extent that most of its young people are now in the city, and the older people have grown tired, lonesome, dour and suspicious. Cheer up for this winter and the future. Visit; get together; join the Farmer's Club or the Literary Society. If one doesn't exist, start it going. Loosen up; throw off reserve. Make life a little more worth while. You'll forget you are tired in congenial company. Be a "cell" not a "sell" in the social organism.

Can Union Save the Tottering Rural Church?

In the small country village, or at the corner of a good side road and the concession line or main thoroughfare, is to be found the church which should stand to benefit from church union. Anti-unionists, sectarians, people who seem to glory in schism and are lovers of doctrine and certain formality, or lack of formality, may say what they will against church union, but the fact remains that, standing against one another in place of together, the country churches are decaying and their congregations dwindling, while their ministers, good and true men, struggle along on smaller salaries than should be their lot according to the sacrifices which many of them make in the work. Many are the country villages of only a few hundred population which boast of two, three and even four Protestant churches, and the farming population round about is smaller than formerly. A visit to the churches on prayer meeting nights, young people's meeting nights, and at the hours of Sunday services would not reveal any great reason for the boast, for empty pews are the real signs of the times. People are fewer in numbers in small villages and many rural districts than formerly and the churches are far from overcrowded.

Farmers' clubs, literary societies and like organizations are doing and have done a great work in country communities, but the rural church must continue to be the source of real country leadership. Unless the country church can be made sufficiently attractive to interest the people and bring them together in closer harmony with one another and with their Maker, it is missing its object. We would not like to say it is doing this, but there is evidence of something wrong in rural churches. Interest flags when numbers dwindle. It was ever thus and will continue to be so. The fact is that there are not enough church goers in many communities to make even a fair-sized congregation when spread, as is the case, to two, three, or four fair-sized church buildings. One would, in many cases, be sufficient to accommodate the people of all denominations. Then, better salaries could be paid to the most efficient and best ministers, stronger church societies and organizations could be maintained without the everlasting money begging now necessary. Better business methods could be incorporated into the work. Greater interest would result. Church efficiency would soar above par. More people would eventually go to church and help the church. Church societies would begin to do the work they should do to help the young man and young woman and the older

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.
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man and older woman in the country districts. The church, divided against itself denominationally, cannot accomplish these results.

What could a united church do in the country? Nothing, unless the people composing it were really united in purpose and ready to forget differences of creed, doctrine, or sect, and ready to banish schism and replace it by union in which there is strength. A so-called union in which the different factions retained their own little pet beliefs and held them near the surface, ready to crop up on slight provocation, would be a dismal and disastrous failure and new divisions on old lines would soon be separated by a much wider chasm than now exists. To accomplish successful union certain conflicting beliefs must be deeply buried never to be allowed to break through where danger and damage would result. Can it be done? If all the people of all the churches in the country districts are on the right road to the same Heaven, and we believe they are, it should be quite easy of accomplishment. We have heard Methodists say, in speaking of certain annual church socials, that they didn't mind if they were not outstandingly successful as long as they "beat" the Baptists. We have known Baptists to nurse the same sentiments. The same may be true of Presbyterians, English Church people and so on. Under real christian union all this would be forgotten—the old order would pass away and all things would be made new.

What could a harmonious union of christian churches do for the rural communities? It could fill one or two churches well which are growing in emptiness yearly. It could build up church organizations which would interest the young people and bring them into closer touch with church work. It could organize literary and debating societies, library work, various club and athletic work to such an extent as to promote an interest in the right kind of reading, good speaking, and clean sport. It could thus be the biggest factor in the social life of the rural community, which it should be. And then, through these things, the pastor, his deacons and his church workers would be in a better position to preach and teach Christianity. People must be interested enough to go to church before sermons do them much good. There is little use of preaching to empty pews. Get the people to church

and then give them something worth while and they will continue to come and will soon bring their neighbors. The rural church may be criticised for being out of touch with the people and for allowing gossip and petty differences to disrupt it. Choir quarrels are almost proverbial. Line-fence differences and neighbor troubles are taken to church on Sunday and William Jones and Thomas Smith, deacons, do not speak on the way out, which spoils the effectiveness of a good sermon and good music on the young mind in the back pews, or the doubting Thomas who drifts in to find fault. The minister, sometimes, is too afraid of his spotless linen to put away his own horse when making a pastoral call on a farmer in his parish, and the farm boy busy with his work resents the losing of the time necessary to do it for him. The minister, often, does not make himself sufficiently conversant with the work and difficulties of his people. For instance, the average rural minister knows too little of agriculture and its problems. And then people are too prone to find fault. There is too much destructive criticism and not enough sympathetic Samaritanism.

The rural church needs an awakening. If union will rouse it, why not union? In real christian union there should and would be strength. In union in name only, while the old fires of resentment and misunderstanding burned behind the scenes, there would be disaster. It rests with the people. Are they ready?

Put it Away.

When through with an implement, machine, or small tool, put it away. Rust is a glutton for iron and steel exposed to the weather. Decay consumes more quickly than most people realize, and wooden parts left out unpainted and unprotected, soon disintegrate. Carelessness is costly—is a time waster, for things not put where they belong are very often lost and some hours of needless "hunting" wasted in search before they are found. It is autumn again and the usual "bad" weather for implements and machinery outside is at hand. How long have you had these implements and machinery? Are they wearing out or rusting out? Can you afford new to replace them when they should be still capable of earning you dividends on the money invested in them? This is a good time to economize on machinery, money and time. Save the machinery, save time, save money by putting the binder, the mower, rake, plows, cultivators, harrows, drills, rollers, scufflers away in their proper place for the winter. Also have a place for the farm tools and put them away each time when finished using them.

Nature's Diary.

A. B. KLUGH, M.A.

This year a great step has been taken in the conservation of wild life on the North American Continent. On August 16th a treaty for the protection of migratory birds in the United States and Canada was signed by Sir Cecil Spring Rice, British Ambassador to Washington, and Robert Lansing, Secretary of State, of the United States. This is, I believe, the first international treaty ever made in the interests of conservation.

For a long time those who have been studying the problem of the protection of bird-life in North America have realized that the leaving of this matter entirely in the hands of the various provinces and states is far from satisfactory, as one part of the country may protect certain birds only to see them slaughtered when they migrate to another area.

This treaty is of such importance that I give here the full text of the main clauses:

Treaty for the Protection of Migratory Birds in the United States and Canada.

Whereas many species of birds in the course of their annual migrations traverse certain parts of the United States and the Dominion of Canada, and Whereas many of these species are of great value as a source of food or in destroying insects which are injurious to forests and forage plants on the public domain, as well as to agricultural crops, in both the United States and Canada, but are nevertheless in danger of extermination through lack of adequate protection during the nesting-season, or while on their way to and from the breeding-grounds; The United States of America and His Majesty, the King of Great Britain and Ireland and of the British dominions beyond the seas, Emperor of India, being desirous of saving from indiscriminate slaughter and of insuring the preservation of such migratory birds as are either useful to man or are harmless, have resolved to adopt some uniform system of protection which shall effectively accomplish such objects.

Article 1—The High Contracting Powers declare

that the migratory birds included in the terms of this Convention shall be as follows:

1. Migratory Game Birds.

(a) Anatidæ or waterfowl, including brant, wild ducks, geese and swans.

(b) Gruidæ or cranes, including little brown, sandhill, and whooping cranes.

(c) Rallidæ or rails, including coots, gallinules, and sora and other rails.

(d) Limicolæ or shore-birds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plovers, sandpipers, snipe, stilts, surf-birds, turnstones, willet, woodcock, and yellowlegs.

(e) Columbidae or pigeons, including doves and wild pigeons.

2. **Migratory Insectivorous Birds:** Bobolinks, cat-birds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, humming birds, kinglets, martins, meadow-larks, nighthawks, or bullbats, nut-hatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, wax-wings, whippoorwills, woodpeckers, and wrens, and all other perching birds which feed entirely or chiefly on insects.

3. **Other Migratory Non-game Birds:** Auks, Auklets, bitterns, fulmars, gannets, grebes, guillemots, gulls, herons, jaegers, loons, murrets, petrels, puffins, shearwaters and terns.

Article 2—The High Contracting Powers agree that, as an effective means of preserving migratory birds there shall be established the following close seasons, during which no hunting shall be done except for scientific or propagating purposes under permits issued by the proper authorities.

1. The close season on migratory birds shall be between March 10 and September 1, except that the close season on the Limicolæ or shore-birds in the Maritime Provinces of Canada and in those States of the United States bordering on the Atlantic Coast which are situated wholly or in part north of Chesapeake Bay shall be between February 1 and August 15, and that Indians may take scoters for food but not for sale. The season for hunting shall be further restricted to such period not exceeding three and one-half months, as the High Contracting Powers may severally deem appropriate and define by law or regulation.

2. The close season on migratory insectivorous birds shall continue throughout the year.

3. The close season on migratory non-game birds shall continue throughout the year, except that Eskimos and Indians may take at any season auks, auklets, guillemots, murrets and puffins, and their eggs, for food and their skins for clothing, but the birds and eggs so taken shall not be sold or offered for sale.

Article 3 provides for a close season for a period of ten years on pigeons, sandhill and whooping cranes, and all shore-birds except black-bellied and golden plover, Wilson's snipe, woodcock, and yellowlegs.

Article 4 provides special protection for wood duck and eider duck.

Article 5 prohibits the taking of nests or eggs of any migratory bird except for scientific or propagating purposes under permit from the proper authorities.

Article 7 is of peculiar interest to the farmer and horticulturist, and reads:

"Permits to kill any of the above-named birds which, under extraordinary conditions, may become seriously injurious to the agricultural or other interests in any particular community, may be issued by the proper authorities of the High Contracting Powers under suitable regulations prescribed by them respectively, but such permits shall lapse, or may be cancelled at any time, when, in the opinion of said authorities, the particular exigency has passed, and no birds killed under this article shall be shipped, sold, or offered for sale."

Article 9 states that this treaty shall remain in force for fifteen years, and then from year to year until notice is given by either Power demanding its termination.

November is a good month in which to pack away implements and machinery no more needed this fall, and which have been neglected up to this time.

The man who has the welfare of Canada and Canada's homes at heart, rather than his own political aggrandizement, is the kind of politician Canada needs. Unfortunately these men are few and far between in politics.

The report of the Commission on the High Cost of Living, large and ponderous though it was, did not faze Old High Cost of Living one iota. He climbed up and up while the report hibernated in the dust and darkness of the backmost shelf.

Even governments find as years go by that the High Cost of Living is real. They sometimes spend more money year after year in order to hold the favor of the men with the votes. A government that cannot live without a patronage system deserves defeat.

THE HORSE.

Legislation and Unsoundness in Stallions.

We have never been strongly in favor of attempting to legislate good stock into a country, because such can scarcely be accomplished. Before a law can be enforced it must have public sentiment behind it. Before a community, a township, a county, a province, or a country will breed nothing but good, pure-bred stock, public sentiment in that community, township, county, province or country must favor high-class, pure-bred stock. The people must demand a law before that law can do much good. Just so the call for better stock must come from the breeders, and not, as a general thing, from legislators or government employees. If an individual or group of individuals have a desire to obtain a better sire and a few females of a higher class, they will usually find a way to get them. It is all right to make it easy for them to obtain what they want, but the people themselves must hold the initiative in the matter if it is ever to be the success which it should be. If a man or group of men desire a Percheron or Belgian horse, they will never be satisfied with a Clydesdale or Shire, and it would be folly to attempt to induce them to take one. If they do take it, the chances are that they will lose interest and neglect it, and possibly they know what will nick with their mares as well as does the man placing the horse. If they want a Clydesdale or Shire they want it, and should get it. The same is true of the various breeds of other classes of stock. It is altogether impossible to give 100 per cent. satisfaction with something "just as good," which can never be as valuable to the man who has an inherent desire for something else.

Over in Britain there is an agitation on foot to attempt to legislate unsoundness in horses out of the country. In the various provinces of Canada legislation has been enacted, making it compulsory to have stallions inspected and enrolled, and in Ontario the grade stallion is being legislated out of business, which we believe is a good move and one demanded by the horsemen of the province. Some objections may be raised to legislation which would prohibit the use of unsound stallions, particularly as authorities are not agreed upon what constitutes an unsoundness. The whole is very well set forth in an article which recently appeared in *The Farmer and Stock Breeder*, from which we quote:

"The question at issue which breeders have to decide is not whether they are sympathetic or unsympathetic to the travelling of unsound horses, but to the means which may be adopted to remove them. We all agree that the unsound horse on circuit is an evil. It is said that one of the proposals is to prohibit the service of all stallions which are unsound. If this is so then we regard it as an effort to run before one finds one's feet for walking. Opposition to such a step must not be interpreted as due to lack of sympathy, for less drastic proposals may achieve the same end. We are hopeful that no such step will be seriously meditated, for it would naturally bring the heavy-horse breeding community into arms; that is to say, the community which has the largest stake in the progressive march of horse breeding. It is quite right that we should do nothing to encourage the travelling of unsound horses, and an effort should be made to dispense with the cheaper grade of stallion—whose services merely make trouble. To achieve that end we are quite willing to go some length, but when the proposal is extended to include horses of undoubted breeding talent which may not be perfectly sound, then we think there is something to be said in favor of walking warily.

"It must not be supposed that we urge in principle the retention—for breeding purposes—of unsound horses. Very far from it; but if we read history aright we realize that it is the gradual elimination of unsoundness that is the sensible plan. History certainly tells us that certain horses have made their mark, and it cannot be supposed that all famous stallions have been entirely sound animals. Let us put it to the breeder. Would he rather have a horse that is perfectly sound—knowing him to be an indifferent getter—or would he prefer a stallion that may have some form of unsoundness and yet prove a superlative breeder? We look at these things in the common-sense light, and we must presume that the question of impressiveness does enter into the case. Soundness is only one of the merits of a stud horse. The question is further complicated by the impossibility of applying a general rule to the mares.

"Let us see what would happen if such a proposal were adopted. Suppose a very valuable young colt is offered for sale. What sort of market would he meet, even if bred from sound parents, if, on the off-chance of his turning unsound, he is refused the opportunity of proving his breeding talent? We can imagine that it would do away with the sale of young horses at enhanced prices, and practically restrict the demand to older and proven stock. Can it be imagined that this would benefit trade and that horse breeding would gain in the long run if the operations of the smaller man, as seller, were thus restricted? There would be little speculative purchase of young colts. If, on the other hand, a proposal were submitted limiting the services of unsound, mature horses to those carrying a minimum of a £10 fee, the proposals may find wider acceptance; but, in our belief, the correct way to tackle this matter is not summarily, causing a shortage of stallions by refusing to

allow a horse to serve at a fee if he is unsound, but to make it compulsory that all travelling stallions should have certificates to show whether they are sound or unsound. It should be made an offence, if patronage has been solicited, and the certificates are not shown to the patron on request. We do not believe in hastening unduly the ideal, and we doubt indeed if the millennium in horse breeding will ever arrive when different opinions are known to be held upon the identification of unsoundness. Any plan which is likely to interfere with trade must be depreciated, and we have certainly not reached that point when we can declare that the impressiveness of the stallion is a small thing to set against the presence of a side-bone."

LIVE STOCK.

Care For the Young Stock.

During the first year of the average farm animal's life it usually makes more growth than throughout the rest of its entire career. This may be somewhat surprising to many people but, nevertheless, it is true. For instance, a well-grown draft colt will make up to 1,200 pounds in one year and its ultimate weight may not be over 1,700 to 2,000 pounds. Data on 35 draft colts from mares 1,700 pounds weight and sired by a 2,000 pound stallion showed that at

six months they weighed an average of 830 pounds, and at 12 months 1,170 pounds. They were grown with the intention of making them as large as their parents. In cattle the same principle applies, since in one year a well-grown beef animal may weigh from 1,000 to 1,400 pounds and the ultimate weight at three years of age not over 1,500 to 2,000 pounds. The pertinent point in these figures is that during the first year of an animal's life (horses or cattle) it makes by far the greatest development. This development is lesser and lesser in its momentum as the animal ages from birth to maturity and, if through inefficient feeding or managing the maximum growth is not obtained throughout the animal's entire life, the ultimate development will not be what it should have been. Moreover, since the rapidity of development is greatest during the first year inefficient handling during that period will have infinitely more injurious effect than the same inefficiency in later life. In brief, improper care will result in its greatest injuries at an inverse ratio to the age of the animal.

Every atom of carelessness with the colts and calves during this fall and winter will tally seriously against their maximum development, in fact their standard at maturity will be a telltale of mismanagement. If under-feeding or some other factor is unavoidable, let not the younger stock bear the burden, but rather the more mature which can withstand hardships with less ill effects. May the growers of stock realize that the first year in an animal's life is all important.

Final Fall Touches for Stable and Barnyard

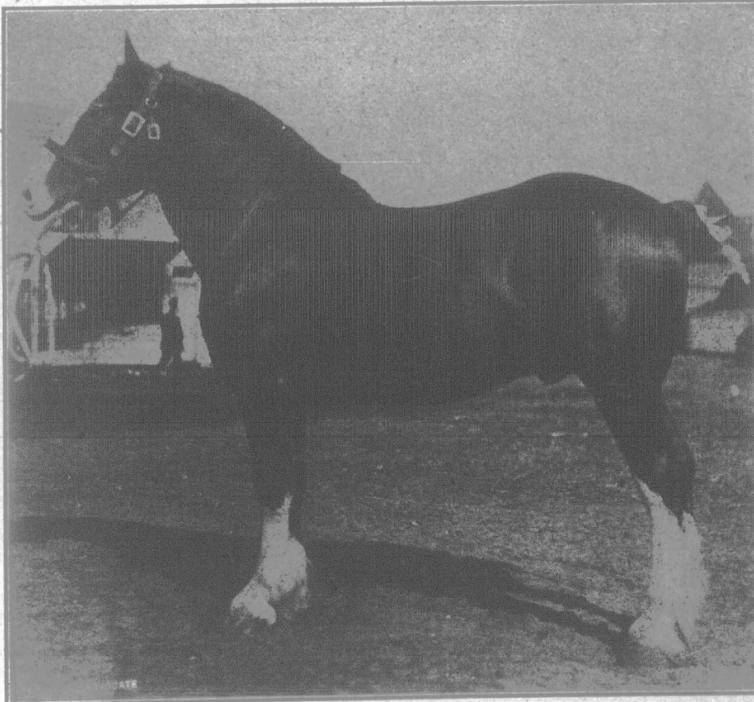
Feed and labor have not been more scarce in many years than they are this present fall. Consequently it is incumbent upon all stockmen or mixed farmers to make such preparations as will conserve the fodder and improve the facilities for handling the live stock this winter. Uncomfortable stables will cause the animals to require more feed to keep them thrifty or produce gains; inconvenience will result in many an extra step and unnecessary hours spent in doing chores. One cannot afford to feed lice and ticks or any kind of vermin this season. When the mow is built high with hay, the bins heaping with grain, and the silo or root cellar full of succulent feed, we are often indifferent to methods of conservation; but when conditions are generally

at the same time, establish the herd or flock along profitable lines.

Disease is exacting a heavy toll from the live-stock industry. Farmers, as a rule, do not realize what losses are really attributable to conditions that may be remedied with little labor and at small cost. Death losses, condemnations and veterinary bills are too numerous and during recent years they have been on the increase. Fall is a good time to fortify against them.

Clean Up and Disinfect.

Before housing the stock permanently for the winter, clean up the stable. If there is any part of the floor that needs repair take it up and replace it with concrete. This is not a very expensive move for the initial cost is small and one has something that will last for a generation at least. If wooden mangers are still a part of the fittings, clean out the corners and see that no holes exist through which grain may be wasted or vermin may enter. Much live stock in this country is still fed from the old-fashioned wooden mangers and greater care should be exercised in keeping them clean and wholesome. In the fall of the year the stable walls should be repaired and swept clean of all cobwebs, accumulations of dust, dirt and manure. Disease germs harbor in such protective material, and no matter how thoroughly any disinfectant material may be applied, it cannot reach or effectively destroy bacteria concealed in such hiding places. When the mechanical cleaning is finished, call into use some disinfectant that is not too expensive but qualified



Silver Head.

Best Canadian-bred Clydesdale stallion at London, 1916, for J. M. & H. C. Robson, Denfield.

a direct negation to those already mentioned, it becomes necessary to husband our supplies and make every particle do its bit. To bring this about the stock must be healthy, comfortable, free from annoyance and fed in such a way as to make the best use of the fodder and grain available. Before actual winter feeding begins the stable and barn-yard should be put in condition.

The first essentials to the proper housing of animals are sunlight and sanitation. Hand in hand with these go ventilation, and so important are these three factors that anyone can profitably spend several days, at this time, making things right. Sunlight is a powerful germicide and the least expensive of any now available. We must economize in our methods of rearing and feeding, yet it is well to be ever mindful of the fact that false economy is just as bad a policy as that which condones waste and negligence. Banish false economy and extravagance in an effort to evolve a standard that will give the best returns at the present, and

to give results.

Whitewash is a splendid material with which to apply chemicals or disinfecting preparations. The whitewash itself has some purifying qualities and it helps to brighten up the interior of the stable. Furthermore it will tend to fill the cracks and crevices making it less easy for dust and germs to find a lodging there. A whitewash, that will stick to the wall inside or out, can be made in the following manner: Take half a bushel of burnt or lump lime and slake with warm water, keeping it covered during the process to retain the steam. Strain the liquid through a sieve or strainer, then add a peck of salt previously dissolved in warm water; three pounds of ground rice, boiled to a thin paste and stirred in while boiling hot; one pound of glue dissolved in boiling water and one pound of Spanish whiting. To the mixture is added five gallons of hot water; it should then stand for some time. The wash is best applied hot and either brushes or spray-pump can be used to put it on.

To facilitate matters and accomplish the work more quickly at a slight sacrifice of effectiveness, slake $7\frac{1}{2}$ pounds of lime using hot water, if necessary, to start action. Mix to a creamy consistency and make up to five gallons by adding water. The proportions in this recipe and the previous one have been given, and any quantity can be made at one time simply by using multiples of these amounts.

It now becomes necessary to select a disinfectant. Some that are practicable and within the reach of stockmen as to price are: chloride of lime, formaldehyde, crude carbolic acid, cresol, compound solution of cresol, and Zenoleum. The latter is a patented product and full directions accompany the preparation. Cresol (commercially known as liquid carbolic acid) in a two or three per cent. solution is an efficient disinfectant for stable work, but it is somewhat difficult to dissolve. However, if warm water is used and the substance well mixed this disadvantage can be overcome. It retails in the neighborhood of twenty-five cents per pint, but a better rate can usually be obtained by the gallon if that amount is required. The strength of this material varies according to its content of cresylic acid which ranges from 90 to 98 per cent. Cresol containing less than 90 per cent. cresylic acid should be rejected. Compound solution of cresol is composed of equal parts of cresol and linseed-oil-potash soap. It has the advantage of mixing readily with water.

Enough whitewash can be prepared at one time to complete the job and into it the disinfectant should be poured while the preparation is still warm, for then the different substances can be mixed more satisfactorily. If cresol is used add one gallon to every forty or fifty there will be of the total product. This, as before stated, is best accomplished by adding the cresol to the whitewash while it is still warm. If a spraying apparatus is used the material can be applied more satisfactorily while warm.

A barrel spraying outfit with rod and hose is very handy for this work. A coarse nozzle will do and sufficient pressure should be maintained to spread the mixture and force it into the cracks and crevices. With a convenience such as this, disinfecting and whitewashing is a simple job and need cause no great amount of worry. When a sprayer is not available the white-wash brush can be brought into service. More time is required with this method but it is effective.

At Weldwood it requires between fifty and sixty gallons to disinfect the stable, part of the horse-barn and henhouse. The recipe commonly used there is a modification of the one given previously containing lime, salt, rice, glue and Spanish whiting. The glue and rice, however, are omitted and the results have been satisfactory. About three bushels of lime are required each time. Zenoleum was used as a disinfectant; one gallon of the preparation to between fifty and sixty gallons of the entire mixture. It was applied with a common barrel-spraying outfit and was first strained through wire similar to that commonly found in screen doors or windows. Very little difficulty was experienced from clogging nozzles.

Stalls or pens used by animals during parturition should be thoroughly disinfected, particularly after being occupied for such purposes. Contagious diseases which affect the health, strength and numbers of the herd are often communicated through these stalls being dirty or infected with germs. Joint ill in horses, and contagious abortion in cattle should be rigidly guarded against by thorough disinfecting.

More Light and Ventilation.

Sometimes the stable could be flooded with light if the windows were only kept clean. Often, however, there is too little space devoted to glass in stable walls. This article is not intended to elaborate on methods of lighting and ventilating, only those things which can be done quickly and at little cost are being mentioned. Nevertheless, one can easily hinge the windows at the bottom so some of them can be opened into the stable at the top and pure air deflected over the cattle. To complete the system some provision should be made to carry off the foul air from the top and bottom of the stable. A galvanized iron pipe, 18 inches in diameter, opening at the ridge board, is an effective outlet. It should be left open at the bottom and another exit for impure air should be cut near the ceiling and covered in such a way that it may be opened and closed at will. Any tinsmith can prepare these and install them. Keep the windows clean so the sun can bathe the stable with germ-killing, purifying light.

As For the Barnyard.

Readers may, at first thought, consider that the barnyard has little to do with the feeding and care of live stock, but anyone who has had experience with a wet, miry barnyard will at once know that it means considerable. No live stock will do as well as they should when forced to wallow about in mud and manure up to their bellies, during fall and spring. Nevertheless cattle should be outdoors for exercise and pure air, and only in a dry, hard run are they comfortable. Wet barnyards are a fertile source of "foul in the foot" and other diseases that will set the cattle back in gains and production. It is very unpleasant to have dairy cows come in with their flanks and udders smeared with mud and manure.

First of all, drain the yard and use nothing smaller than four-inch tile. If the soil is clay the tramping over the tile is likely to render it useless and prevent the water from reaching the tile at all. In a case like this the efficiency of the tile can often be increased by first placing a few sods about the tile to keep it in position and then filling the trench with broken stone,

brickbats, and on top of this, coarse gravel to the surface. Concreting in barnyards is now becoming a common practice. Five or six inches of concrete in depth, mixed one to five or six, makes a firm, lasting bottom. In preparing the foundation, level off the ground and fill all spongy or soft places with broken stone. It is the water beneath concrete that destroys it, and the better drainage provided, either through

tile or foundation of stone or brickbats, the more lasting and satisfactory will be the work. When the yard is large a part near the stable can be handled in this way, and it should be large enough to permit all the cattle to stand or walk about on it. Keep the manure in a well-built pile and as far from the doors as is convenient and practicable.

Winter Feeding Under Present Conditions

An abundant crop of hay but a shortage of corn and coarse grains are the factors that must influence feeding operations throughout the greater part of Ontario this winter. Millfeeds are high in price, so anyone who ordinarily would purchase concentrates to balance or augment the home-grown feed must first count the cost and decide whether his investment will return him interest with profits. The problem would not be a difficult one to solve if corn and roots, like hay, had yielded well, for then young stock and dry cows could have been wintered in a thrifty condition, and the feeders could receive what grain there happened to be available with some millfeed added. There are farmers who will not really appreciate the significance of these remarks, for their grain bins are heaping and their silos full. Even they, in many cases, we fear, will allow themselves to sell grain in spite of the pleadings of their own consciences to hold it and feed it on the place. There was a fair crop of fall wheat, but it, at time of writing, is moving at \$1.50 f.o.b. With a small crop of coarse grains and a full stable a man should think twice before selling his wheat even at that price, unless he turns around and puts it into some other kind of feed which he thinks will give better results. Of late years many stockmen have fed dollar wheat to cattle and hogs, claiming it paid them well to do so.



Young Leroy

Senior and grand champion Aberdeen-Angus bull at Toronto and London for Jas Bowman, Guelph, Ont.

Fewer steers are being fed this winter than for several years, and, furthermore, many feeders are being slaughtered at the present season. Naturally this will result in a scarcity of good butcher cattle next spring, and from all appearances there will be no large supply of pork or mutton to satisfy the increased demand these conditions must bring about. With no exceptional numbers of other meat animals to be consumed in the place of high-priced beef, and if the law of supply and demand be unhampered nothing now visible stands in the way of high-priced butcher-cattle in the spring of 1917. There will be a large number of two-year-olds wintered on meagre rations, but they will probably be so thin in the spring that not until late in the summer will they be in any way ready for the block, and it is not outside the realm of probability that some may be carried over as store cattle to be finished during the winter of 1917-18. It is the spring and early summer cattle that should meet with the most remunerative demand. Will it not pay well then so to feed that the surplus stock can be finished in the spring, or, with a little grain, on the early grass? If wheat is sold, and the cash received is not urgently needed to meet outstanding obligations, we believe the money should be invested in feed of some kind. We are laboring under abnormal conditions with regard to prices, but if the value of a finished bullock, a finished hog, or one hundred pounds of milk, is such that production has not been accomplished at a loss, things are not so different after all.

We cannot overlook the fact that swine are not only being disposed of in an unfinished condition, but the brood sows, upon which we must depend for future stock, are moving in significant numbers. Pork, at the present time, is so high that it can be used only in a limited way as a substitute for beef. What then will be the state of affairs after this season

has drawn to a close? Farmers are disposing of their young pigs also, explaining in a light-hearted manner that "hogs won't eat hay." If the war should terminate during the coming winter or early summer some readjustment of the markets would take place, but if conditions now prevailing continue to exert their influence over next season's buying and selling, we believe it is not outside the bounds of reason to hazard the guess that prices for meat animals will rule high indeed.

Many farmers will remember 1907 as a lean year. Hay as well as coarse grains and millfeeds were high in price. During the week ending November 2, 1907, quotations on the Toronto market ranged at \$17.50 to \$18.50 per ton for baled hay in car lots on the track. At the same time baled straw was quoted at \$9.50 to \$10.50 per ton; number 3 yellow corn was 72 cents; number 2 white oats were 54 cents; barley was 95 cents; bran was \$25 per ton, and shorts \$28. For the sake of comparison with conditions that exist now and which may extend their influence over next spring's operations, we may state here that during the spring of 1908 butcher cattle sold at Toronto at prices ranging between \$5 and \$6 per cwt. During the same period hogs sold at varying prices, ranging between \$5.25 and \$6 for selects, fed and watered.

The fall of 1907 presented difficulties similar to those we must face again this year, but the spring market of 1908 was apparently not in sympathy with the conditions under which the offerings had been fitted, for prices in 1908 were only a few cents higher than for the same period of 1907. Now we have a world-wide shortage of meat animals; the greatest war in history has increased the demand, and if stockmen are not compensated for their heavy investments in high-priced feed used in this winter's feeding, it will be due to some manipulations of the market that are neither fair nor just.

There is another matter that must be weighed carefully. Can anyone afford to farm the land without the customary coating of manure this coming spring and summer? Crops must be produced in 1917 and in years to come. Will it profit one to sacrifice future yields for present monetary gains? This is the question each must answer for himself according to the fertility of his soil, available capital, and outstanding obligations.

Avoid All Waste.

In our winter operations, conditions demand that all leaks should be stopped. The grain should be dispensed in the most profitable manner, and roots or silage should be fed in small quantities at least to the young stock and dry cows, which will probably have their grain rations materially reduced. Some saving of grain can possibly be accomplished in the swine department by boiling roots and mixing them with chop or millfeed. This makes a very palatable mixture for hogs and one on which they do well. By utilizing every particle of waste material, or by-products, and putting them up in a tasty manner for the swine, considerable saving can be made. Skim-milk will take the place of a certain amount of grain; kitchen refuse also has some value, and this all combined with a few roots and some tankage, if the skim-milk is scarce, will tend to liberate for the cattle oats and barley that would ordinarily go to the manufacture of pork. On the other hand it would be folly to skimp the hogs. They should have sufficient grain or meal, over and above the by-products and refuse supplied to keep them thrifty and growing. Farmers should remember it is not five-cent pork they are producing in these days. Ten, eleven, twelve or even thirteen-cent hogs, such as we have had, are a different proposition and these values warrant the feeding of high-priced meal. However, the object should be to make everything count to the very best advantage.

Turning to the stable we meet several alternatives.

Those who market ample food for their cattle of good quality keep the manure in such a pile as to make

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Those who do not as a rule finish cattle for the spring market will probably find themselves equipped with ample fodder to carry their breeding stock and growing cattle through the winter in fair condition. Plenty of good hay, with a little silage or a few roots, will keep the animals thrifty and growing. If some grain can be spared, the store cattle possibly can be kept in such fit that four to six weeks on good grass would make them acceptable to the butcher.

Again, there will be many who annually finish some few head, which they have reared themselves. The decreased demand from professional cattle feeders this season will enhance the number of farmers who will find themselves obliged to keep the feeder class of animal rather than sell it as has been their custom, unless they should dispose of such stock for less than it is worth. These farmers have two alternatives; they can finish the cattle themselves, perhaps that will necessitate the purchase of some grain, or, they can winter them roughly and finish on grass or carry them over to be fed during the winter of 1917-18. With market conditions such as are likely to obtain next spring and early summer, it is not unlikely that the greatest ultimate profit will accrue from finishing such cattle this winter, even if some grain or millfeed must be purchased. If one has plenty of hay and some silage or roots they will suffice for the first month. Fill the cattle up with this feed, and at the beginning of the second month introduce about two pounds of chop into the ration. If silage is fairly plentiful, cut straw and silage mixed can be fed twice each day at the start, also one good feed of hay. As the winter advances gradually work back to the hay, so by the first of March straw will be entirely replaced. Slowly increase the grain each month until the quantity reaches eight or nine pounds per day, per steer, by the beginning of March. This method will conserve the hay for the cows and young stock, which will no doubt be deprived of other and better feeds.

To the professional feeder who fills his stalls or runs each fall with feeder cattle, little need be said. His position is different from that of the man who already has the cattle. The professional cattle feeder usually takes an inventory of his stores and then puts in enough stock to deplete them by the time grass is ready, or before. He knows that he can make one hundred pounds of gain on so much fodder and a certain quantity of grain, and after computing the cost of feed and the value per hundredweight of his feeder cattle, he has some idea regarding his profits, provided the price for the finished bullock is not disappointing. Extensive dealers are buying cattle quite freely for distillery feeding purposes, where they are obliged to purchase every ounce of feed. They are in close touch with the market, and are paying good money for the choice kind. This is significant, for they are not new at the game.

What Feeds Shall He Buy?

There has been a good crop of hay, and this obviates the necessity of purchasing several kinds of feed that might have been found necessary. Furthermore, there has been an opportunity of obtaining good alfalfa hay very reasonably, and this class of fodder takes the place to some extent of bran, roots or silage. Corn, which formerly was bought freely, is now quite high, but even at present values it will not cost much more than two cents per pound in large quantities. Bran and shorts are well up, so No. 1 Western feed oats are perhaps as good a buy at 62 to 65 cents, at which they are quoted when writing, as any feed on the market. They are safe, and when ground with a little barley or wheat make excellent chop both for fattening cattle and growing stock. Corn and this class of oats are not yet out of reach when we consider the price of beef and pork. Young pigs will perhaps require some middlings, which, with a little skim milk, will produce good results. Possibly it will be necessary to use some bran if the silage and roots are scarce, but it appears that oats and corn, particularly the former, are as good an investment for the feed lot as there is now in sight.

It is always wise to buy carefully, and only those feeds that will combine well and profitably with the home-grown stuff. Farmers are now fairly well informed regarding the different properties of feeding stuffs, and they should consider this phase of the question. Balance the protein rich feeds, such as alfalfa hay, bran or oil-cake, with the feeds rich in carbohydrates, such as corn or wheat. An excess of either kind will result in waste.

We have made a few suggestions regarding markets and the feeding problem, and they are based entirely upon conditions which exist at this time. Every farmer should take sufficient time off at this season of the year to figure out how he stands with regard to his live stock and available feeding stuffs. Furthermore, he should consider methods whereby he may effect a saving in some department without unfavorably influencing another. Conditions are such that deliberations are necessary. There is a splendid opportunity, for the man who uses his head, to convert an unfavorable situation into something quite remunerative, while he who will not attempt to avoid waste or alter his methods to suit his circumstances may long remember this as a lean year. Estimate as nearly as possible the value of the finished product, then, if after distributing the material at hand to the best advantage, some extra feeds can be used at a profit do not hesitate to obtain them.

Who Can Beat This Grade Cow?

The grade cow illustrated in our issue of October 12, together with her three pairs of twins born in 25 months is certainly a valuable cow for W. E. Johns of Perth Co., Ontario. The cow is 14 years old as stated, and in addition to giving birth to two calves April 15, 1914, two more June 11, 1915, and a third pair May 25, 1916, she gave in her 1913 lactation period 7,885 lbs. of milk, 7,376 lbs. in 1914, 8,938 lbs. in 1915, and 8,367 lbs. in the period ending early in 1916 with an average test of 3.5 per cent. fat. In June of her lactation period she gave 1,605 lbs. milk testing 3.2 per cent. fat. Her highest day's milk was 60 lbs. This is surely a dual-purpose cow. There are few cows young or old, pure-bred or grade which give in four consecutive lactation periods 32,616 lbs. of milk, testing 3.5%, or an average of 8,154 lbs. each period, let alone producing twin calves regularly.

It would seem that the production of twins may be hereditary. This grand old cow's dam gave birth to two pairs of twins in less than eleven months and all were raised. Her heifers, if they show individuality of the right kind, should be kept.

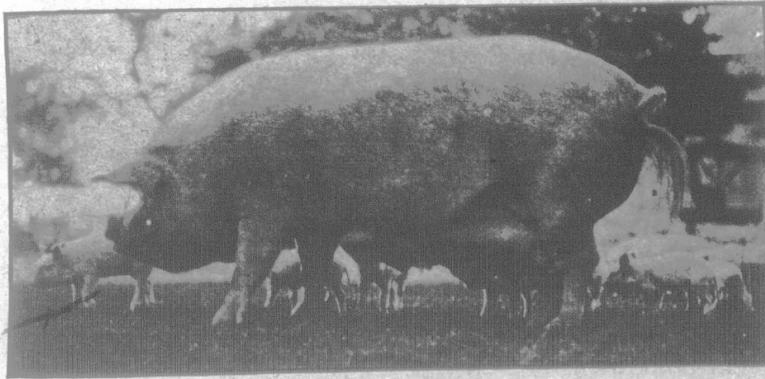
A Hot Bath Saved These Pigs.

EDITOR "THE FARMER'S ADVOCATE":

I have a fine sow which farrowed 12 nice pigs a few days ago, and during the night six of the litter, for some reason, were lying on the only bare spot in the pen, the floor of which is cement. We thought the six would pass out as they were badly chilled and almost lifeless. My man, who lives with his family on the farm, carried these almost lifeless pigs into warm quarters and put them into a warm bath and kept them there until they were warm, then fed them a little warm, new milk with a few drops of whiskey. For eight or ten hours we thought their chances were poor, but one by one they began to revive and were taken back to the sow and at present are doing well.

Waterloo Co., Ont.

C. A. RICHARDSON.



Oak Lodge Duchess 312th.

This sow, which her owner, John Warner, of Kohler, Ont., calls a golden investment, farrowed 83 pigs in 5 litters. She weighs 690 lbs.

Feed Value of Roots.

A circular on "Root Growing in Quebec", issued by the Cereal Husbandry Department of Macdonald College, contains the following information about roots and root tops: "The feeding value of roots depends on their content of dry matter, mainly consisting of easily digested carbohydrates. Ten pounds of mangels, carrots or swedes (swede turnips), twelve and one-half pounds of turnips (soft white) contain, on an average, one pound of dry matter and have the same feeding value as one pound of grain. Each amount constitutes one feed unit. Root tops represent a valuable feed and may either be fed fresh or put into the silo. Ten pounds of carrot tops and fifteen pounds of mangel, swede, or turnip tops each constitute one feed unit."

THE FARM.

Putting the Land in Final Condition for Winter.

Were it not for the fact that this has been an unusual season and that farm work has been delayed for various reasons, this would be a rather late date at which to discuss putting the land in final condition for winter. But, owing to the drought which continued in most sections of Ontario well on into the fall, and partly due to the scarcity of labor, a great deal of the farm work which, as a general thing, would be accomplished in October will have to be done this year in November if the freeze-up does not come too early. By exercising memory a little we are led to hope that winter will not close in before November 20th at least, and probably not until nearer the end of the month. As a general thing the plow is not stopped by frost in the greater part of Ontario before the middle of November, and in open seasons such as is predicted for this year, plowing is done up to November 25 or first of December. It is a safe rule, however,

to be pretty well wound up by the fifteenth of this month because the weather is not dependable after that. But during the next two weeks considerable may be accomplished in the way of getting the land ready for an earlier, quicker and better seeding in the spring.

The greater part of the soil will only be plowed once this year as the early after-harvest cultivation was made practically impossible through lack of moisture and scarcity of help. The bulk of the deeper plowing remained to be done after the 20th of October and much of it is still to be done. For the most part a furrow from five to seven inches deep, cut wide enough that the land is well turned over, but not so wide that it is simply cut-and-covered, should be about the right thing. On heavy clay soils, or even those moderately heavy, most farmers prefer to leave the soil turned up rough from the plow so that the frost gets its best chance to pulverize, disintegrate and prepare it for spring cultivation.

Hoed Crop Land.

What should be done with corn ground which has been kept clean and well cultivated throughout the season of the growth of the crop? If the land is in good condition and weeds have been kept down, the soil being anywhere between clay and loam or composed of either one, many believe that it is folly to plow or cultivate in the fall. Some of the best farmers in the province, when they have their hoed crop land clean, including corn and root ground, and they aim to have it so, leave this land as the crop left it until spring, not plowing it then, but simply cultivating well or disking in preparation for the seed. The writer has tried this system for the growth of both spring wheat and barley after the corn and roots with excellent results, and under most conditions where the land is clean enough would favor leaving it without plowing. Where such is done it is generally necessary to roll with a heavy roller after seeding in the spring to put the corn stubs down out of the way of the binder. Where the land is in bad condition and where weeds have thrived during the summer in the corn or root crop, of course plowing would be advisable, and it is well to go about the same depth or a little deeper than that to which the

manure was plowed down previous to planting the corn or sowing the roots. This tends to keep the manure up in the surface where it is more accessible to the roots of the shallow-rooted cereals which generally follow the hoed crop. Manure should not be plowed down too deeply.

For Stubble Land.

Most of the stubble land will, this year, get only one plowing and in order to facilitate matters and get the work completed a great many farmers will use the two-furrowed plow. A medium gang set to the

depth of about five inches or possibly six will do good work in the fall when the ground is soft as it is now. We would much rather have the fields well turned with this plow than to have them only half completed with the single plow. Of course a great deal depends upon the man who is operating the plow. It should be kept adjusted and in the ground so that an even, fairly straight and well-turned furrow results. Striking out and finishing should be done with a single plow no matter what style of two-furrow implement is used. Some good farmers, when they can get their plowing done fairly early, have found it excellent practice to plow to a fair depth and follow this later on with the cultivator with broad shares attached, or with the disk, leaving the land in this condition over winter. This is all right where the soil is not too heavy and is not liable to run together and become sticky which would delay spring operations and work to the detriment of good tilth next April, when the 1917 crop is going into the ground. For heavy soil or that which is inclined to be wet and rather late at seeding time a good practice is to ridge the land the very last thing in the fall. This is something which might be done to good advantage on considerable of Ontario farm land. After the plowing has been completed, if a few days or weeks remain, the double-mould-board plow could be used to ridge up as is done in making turnip or mangel rows. A good man with a first-class team will put up anywhere between three and four acres a day quite handily and this ridged soil, exposed as it should be to the frost, gets all the benefit from frost action, dries out much more quickly in the spring and a couple of strokes crosswise with harrow and cultivator put it in fine condition for the seed, generally permitting of getting the spring seeding done at least a few days earlier, and every day counts. Many of our readers might well try a field of their heavy soil according to this system this fall if time permits. Where a double-mould-board plow is not at hand very good work may be done with an ordinary single plow cut-and-covering, generally crosswise of the plowing.

The Sod Field.

The sod field is a different proposition. In some

districts where sod is to be plowed for corn, fall plowing is preferred. On our own farm, Weldwood, spring plowing has proved to be much more advantageous. Sod to be worked up for spring crop of cereals should be plowed fairly late in the fall and to a fair depth, being careful to turn it well, and if possible use a skimmer to help get over the difficulty of grass growing up in the seams before the land can be worked in the spring. We would advise fall plowing of all sod intended for oats or barley next spring. For peas, spring plowing is generally good practice where the time can be had to do it in the spring, or where the field is so situated that a few days' plowing may be done before the other land is ready to seed. In plowing sod the main thing is to be sure that all grass and other growth is well turned under. It is sometimes considered good practice to disk and work down a fall-plowed sod field in the fall to get the top fine, which aids in rotting the sod and preventing grass growth. Sod has not the same tendency to run together as stubble or other land worked according to this system.

Water Furrow.

Most of the land would be benefited by running a system of water furrows throughout the field. The more quickly the water can be pumped away from the surface of the field in the spring, the earlier seeding will be completed, and water furrows help. This is a job which should be attended to just before freezing up. A day or so will water-furrow a whole farm and in many cases it would pay well.

Five Things to Remember.

There are five things to remember. First, if the corn and root ground is clean and in good condition, leave it as the crop left it; if poor and dirty, plow. Second, replace the single plow with the two-furrowed gang and rush the stubble plowing to completion, being careful to turn the land well. Third, sod for cereal crops will be the better of plowing and cultivating this fall, and the work can be done after the stubble land is completed. For corn and peas spring plowing would be better in some localities. Fourth, where the land is heavy and has been plowed and time remains, ridging up would put it in better condition for winter and for an early seeding. Fifth, water-furrow wherever necessary.

Selecting, Curing and Storing Seed Corn.

What is known as the corn producing area of the Dominion lies in the South-western portion of Ontario, and to a limited extent along the lake shores where the temperature is tempered by the water. However, certain varieties mature satisfactorily in a more northern latitude, especially where the soil is inclined to be warm, so that seeding can be done fairly early in order to give a long growing season. On many farms, choice seed corn for the next season's planting can be secured in the home field. In making the selection, attention should be given to the quality of the ear, and the kind of stalk which produced it, consequently the proper time to select seed corn is while the crop is standing. It is too late for that now, and, in fact, many have difficulty in finding time to do it even when the crop is standing. The next best thing is to pick out ears conforming to your ideal at the time of husking. Corn allowed to mature and then cut and shocked gets a fairly good chance to dry, but it is advisable to husk it and take it in from the field before severe frosts occur. It does not take a very heavy frost to injure the germination of the kernel if it contains much moisture. Freezing causes the water in the kernel to expand, breaking the cells. When mature, and still standing, corn contains about twenty-five per cent. of moisture and this should be allowed to dry out in a place that permits a good circulation of air. It soon evaporates if the corn is standing in shock, or if the ears are lying on racks exposed to the breeze. If not dry by the time frost comes the seed corn should be placed in a building and artificial heat applied in order to drive out the moisture, after which severe freezing will have little effect on the corn. To have thoroughly mature corn is not sufficient to guarantee a high percentage of germination next spring. It must be cured properly and kept dry until seeding time. In seed corn belts special drying kilns, or cribs, are erected but where only a few bushels of seed are saved, less expensive, but nevertheless effective means of curing and storing the corn are employed.

There is a lot of corn to be husked yet and while the frost came earlier this year than usual there are fields where the corn was matured before growth was stopped by the frost, and it may yet be possible to select good seed corn. There are certain types of ears that it is found advisable to gather. No matter what variety, the rows on an ear should be straight, with the same number at the tip as at the butt. Regular rows produce more corn, and kernels from a straight ear are likely to produce ears with straight rows of kernels. Like tends to produce like, and that is one argument in favor of seeing the corn on the ear. The ideal ear is strong in the centre, tapers slightly towards the tip, with a full, well filled tip and butt. In endeavoring to secure ears having the tips and butts well covered, due regard must be given to the proper length of the ear, which varies with the variety. For a dent corn the best length is from seven and one-half to nine and one-half inches, and the circumference, measured at one-third of the distance from butt to tip, five and one-half to seven and one-half inches. Of course, the length of an ear of flint corn is greater than this, and the circum-

ference less. With the dents there is a certain ratio between circumference and length which it is advisable to aim at. It is claimed that the circumference should measure about three-quarters that of the length. Attention must also be paid to the shape of the kernel, the best being broadly rounding, wedge-shaped kernels. The shoe-peg type is undesirable. The sides of the kernels should be slightly rounded, with the width carried right up to a square shoulder; the point should be plump, as that is where the germ is found, and it is also the part of the kernel richest in oil. The germ should run well up towards the upper end of the kernel and should be thick through. Those which appear pointed when looked at from the side also appear pointed when viewed edgewise. Such grain is low in feeding value and weak in the germ. It is possible to increase the yield considerably by careful selection of the seed. For this reason it is advisable to know the kind of stalk that produces the corn. This cannot always be done, but it is possible to know the kind of ear from which the seed corn is taken. If the grain is left on the ear over winter there is less danger of the germ being injured than if it is shelled.

The Origin and History of Mangels.

By L. H. Newman.

An interesting article on the origin and history of mangels by L. Helweg, Director of Root Seed Production in Denmark, is published in a recent number of the Danish Crop Production Journal (Tidsskrift for Planteavl, 23 Binds, 2 Hæfte, 1916). For the benefit of Canadian readers the writer is taking the liberty of translating and making a brief summary of this article which follows:

Cultivated forms of field roots are among the oldest of cultivated plants. In an Egyptian tomb, about 2,000 years B. C., there was found a picture showing a workman making a large mangel pit. Theophrast (about 320 B. C.) cites that red and white beets were commonly cultivated in Asia under the name of Teulion melon and Teulion levkon. Pliny and Columella, in the first century after the birth of Christ, speak of these beets and also mention the bluish-red beet, cultivated in Italy. The latter is called Teulion kokkinogoulia.

Yellow forms were not mentioned and it may therefore be assumed that these were not known in ancient times. Helweg expresses the opinion that violet-red and bluish-red forms were cultivated in ancient times as dye-producing plants.

Our cultivated forms of mangels, as well as sugar beets and red beets are believed to have originated from the so-called Shore or Strand beet, (*Beta maritima* L.) which is found growing wild by the Caspian Sea as well as in Spain, France, Holland, Denmark and Great Britain. In order to show the relationship between Strand beet, the sugar beet and mangel, Helweg makes comparisons between certain characteristics. Thus Strand beets are perennials, but often produce seed stalks the first year. Our cultivated beets as a rule, are biennials, but according to many investigations it would seem that one may obtain roots which produce seed during successive years, as does the Strand beet.

The seed stalk in the case of the Strand beet is procumbent, while that in the case of our common cultivated beets is upright. The color of the leaf of the Strand beet is a darkish green, while in that of the cultivated beet it is more of a light green. Sugar beets, on the other hand range intermediate between the cultivated beet and the Strand beet in color and position of leaf. The Sludstrup Barres Yellow Intermediate mangel is regarded as representing the acme of man's efforts in improving upon this ancient type. As intermediate between these two extremes, many inferior and degenerate forms are to be found.

The influence of cultural conditions in changing the type of beets and producing a certain form of degeneration has long been recognized. One of the most striking illustrations of this effect was found in connection with certain work conducted in Denmark. In 1905 a German seed grower in one of the Rhine Provinces bought 100 kilograms of common commercial seed of Sludstrup Barres from a seed merchant in Denmark. This grower produced his own seed and after growing this particular type for four years he sent back a quantity of seed to Denmark. The roots produced from this seed proved to be quite degenerate. The German grower reported that during the first two or three years the roots were grown on volcanic soil and Helweg thinks this is probably an explanation of the degeneracy. He does not believe that in this case cross-fertilization with wild forms, which very commonly produces a form of degeneration, played an important part. In supporting this view he marked a number of careful comparisons and observations, the details of which need not be repeated here.

The root of the Strand beet is small and spindly, but when taken from its natural habitat and cultivated on well-manured land, it develops a thicker main root and decreases in dry matter. This discovery of this behaviour of the Strand beet is probably accountable for its being brought under cultivation.

Many experiments have been conducted with a view to proving whether the Strand beet was actually the original form of our cultivated beets. Many noted workers, such as Rimpau, Timbal, E. von Proskewetz and others have devoted much time to this work, and

After the ears are thoroughly dry, care must be taken to store them in a dry place. One method used in drying the corn is placing it on racks where no two ears touch, and where there is a free circulation of air. It does not take long to tie a number of ears together and hang them in a furnace room, the attic, granary or barn to cure. Some drive nails into boards and stick the cobs on the nails, and find it a very satisfactory way of curing a small quantity. As soon as the corn is husked it should be spread out where it will get the circulation of air. Cases are known of where it was left in a bag for a day, heating started and the germination was destroyed. It does not require a great deal of space to store sufficient corn to plant the usual acreage on the average farm. About one hundred ears make a bushel of shelled corn, which will give some idea of the amount required. An extra quantity should be collected, as it may be necessary to cull out a number of ears in the spring, and there is always the possibility of rats or mice destroying some of the corn. Care must be taken to store in a dry, well-ventilated place.

their investigations seem to show that the great variety of types is to a large degree a result of cultural conditions. Helweg summarizes the points which seem to indicate that strand beet is the original form from which our present cultivated beets have come as follows:

1. Strand beet's botanical characteristics in the main compare closely with those of our cultivated forms.
 2. Morphological examinations and chemical analyses show definite relationship between the Strand beet and the cultivated beet.
 3. When an improved Sludstrup degenerates it happens that outer as well as inner characteristics approach more or less closely those of the Strand beet.
- During the past thirty years a great many different types of mangels have been tried out in Denmark, but to-day, 88.4 per cent. of all seed handled on the market consists of the so-called Barres type, a Yellow Intermediate form. The history of this type is interesting, in view of the fact that both in Denmark and Canada this type has come to displace all other types of mangel grown.

History of Barres Mangel.

The Barres forms of roots are first spoken of in the literature of the French Horticulturist, André LeVeque de Vilmorin who died in 1862. His son, belonging to the firm of Vilmorin, Andrieux and Co., in Paris, reported, in 1899, that through the continued selection for many years of the beet called *Dianthe jaune* by his father on one of the seed firm's estates called Les Barres, he produced a sort to which he gave the name *Jaune ovoïde des Barres*. (Barres Yellow Intermediate). This came on the market for the first time in 1853 and appears first in Danish literature in a report published in 1861 on experiments conducted at agricultural high schools.

Professor Jrgensen in this report writes: "The new type of mangel called Barres is an attractive, thick, medium-sized yellow root, the seed of which was obtained in France from Vilmorin of Paris last year."

The area devoted to root growing in Denmark has increased very much during the last thirty years. In 1878, according to statistics, there were 12,330 acres of roots, while in 1915, 307,307 acres were under cultivation. No other kinds of cultural plants and no other variety has made such rapid progress in Denmark during this period.

In many countries root growers believe that a certain kind of soil requires a certain sort. This same belief prevailed in Denmark for many years, but as a result of experiments conducted by the State between 1893 and 1899, this idea has come to be abandoned. These experiments showed that the Barres stocks were practically always superior to any other, irrespective of the kind or quality of soil. During the past few years the problem which the Danish root growers have been considering most is that of improving upon the Barres type. This type has been defined by the Danes as follows: "Barres is an intermediate, orange-yellow mangel, the root being, as a rule, somewhat more than twice as long as it is broad, the greatest thickness being found usually just below the middle although in some cases it is thickest at the middle. The flesh is white but with a weak yellowish tinge."

From 1900 to 1913 there were tested out at the Danish Experimental Stations many different lots and strains of this type. The strain which has produced the best results was given the name of Sludstrup, having been procured in 1887 by a teacher, J. H. Michelsen, of Sludstrup, Denmark. Sludstrup Barres has been tested out in Canada for a number of years and is now looked upon as one of the very best types of Yellow Intermediate or of any other type of mangel, and steps are being taken by the various agricultural colleges and some of our experimental stations to produce pure seed of this sort. This year stock seed of this variety was obtained from Macdonald College, P. Q. by a number of farmers who intend, as members of the Canadian Seed Growers' Association, to propagate it and offer it for sale in sealed packages.

A TOV

EDITOR

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Canada's Young Farmers and Future Leaders.

A Town Boy's Summer on the Farm.

EDITOR "THE FARMER'S ADVOCATE":

I am going to attempt to write an article about my experiences while obtaining my examinations through farm employment during the past summer. I do not claim to be in possession of any fund of special facts, so that the following will be merely a recital of what many others in similar positions to myself have experienced and observed during their terms of employment in the country.

If farmers only realized what they add to their own reputations, and how much more work they can exact from their employees by adding kindness and liberality rather than meanness and roughness to their wages, I feel sure that farming as a profession would not be half so unpopular among town boys as it is at the present time. One lad's employer makes him feel almost as though he had taken him into partnership, and uses him as he uses his own family; another employer haggles over a few days' wages, is continually talking about the high cost of living at mealtime, and growls at his hired man as though he placed him in the class with his horses. The result is that the latter's hired man leaves him at the first opportunity, and naturally tells all his friends the particulars about the "place," and his former employer is surprised to discover that few will hire with him at any price, while his neighbor, who uses

his hired help "white," is lauded everywhere and never has any trouble obtaining help. I have in mind several cases where friends of mine obtained employment on farms where "grub" was scarce, and of others where there were "all kinds of it." Needless to say, in each case a different kind of recommendation was given, and nearly all the young men included in their stories the statement that, "they didn't care about the work, so long as there was lots to eat." In my own experience I found that hearty meals and cheery words made me fit for any work which might happen to come my way.

We didn't finish seeding last spring until after the middle of June, and even then most of the seed was "mudded" in. Some of the fields we had to leave without harrowing, as the rain would come on almost at any time and practically all the time. However, I noticed that when the harvest was off the ground that was not harrowed apparently yielded as much as the ground that was harrowed; although none of the crops were anything in comparison to those of other years. In making this statement I must not forget the hay crop, which has seldom been surpassed in this part of the country, either in quantity or quality, for you will remember the perfect weather that we had about the middle of July, at which time we had haying in full swing. On the farm where I worked we harvested clover as heavy as three loads to the acre, and that was from the first year's seeding. It seems to me that here lies the comforting feature of the farming profession. Farmers are not dependent upon one crop alone for their living. If a crop fails there are always others to fall back on.

One of Nature's laws is that those depending on her shall not be left desolate. Can the world, I mean the general public, be credited with such kindness?

Although hay was plentiful, we had to economize with it to offset the scarcity of other feed, and I soon found out that the horses could do as much work and looked just as well when they received a regular and carefully measured allowance of hay and oats, as when their mangers were kept full to the brim. In this connection, if I might be allowed to make the suggestion, I think that the scarcity of feed this year ought to teach farmers a lesson. Several farmers have told me that they were planning, by means of careful and thoughtful management, to winter as much stock and make as much money as usual this year. Now, if they can get along as well one year with a poor crop as they can another year with a good one, it is plainly time that lessons in economy should be forthcoming. Applying this to all Canada, I believe that were the lessons of sacrifice and economy taught by the present national crisis, practiced in times of peace and prosperity, in future years this war might be termed a national blessing.

Taking everything into consideration my experiences during the past summer have been everything but unpleasant. Football and lawn socials in the evenings, and kind friends at all times far more than offset the blazing sun, the blistered hands and tired limbs, and I know of no place where anyone can spend their holidays more pleasantly and profitably than on a farm, even if three parts of the fun consists of work.

Perth Co., Ont.

STUDENT.

Automobiles, Farm Machinery and Farm Motors.

Fire-Side Arguments.

Have you yet attended a meeting of the "Hot-Stove League"? In other words, has the cold weather brought your friends closer to the fire in a mood to discuss the automobile and its summer performance? Whether this opening event has occurred or not, it cannot be long delayed, and here are a few more suggestions that will in all probability provoke endless discussion.

Perhaps you have heard of the words "Chamber and Gather" as applied to front wheels. The former can be described as the amount of divergence from the vertical, and the latter as the amount of "toe-in." Front wheels must, of necessity, steer easily and also allow for even wear upon the tires. Now, the chamber allows the point of road contact to get closer to a position under the king bolts, and the gather obviates any tendency towards abuse of the casings by result of uneven usage. Never allow the front wheels to get out of their proper alignment, as the tires will not give you the mileage that would ordinarily be available.

Speaking of tires, if your machine is going to be laid up for some little time it is not a bad policy to wash them with some brand of pure soap and water, and then wrap them in strips of cloth or thick paper and store them away in a place free from light and with medium temperature. If it is not possible to remove your tires during the period in which your auto is out of commission, perhaps it would be as well to invest a few dollars in jacks and so elevate the motor that the rubber will not, at any place, be touching the floor. If you cannot take any of these precautions, in all events keep the tires well filled with air and move your machine from time to time in order that the rubber at the different points of contact may not become dead and inert.

Were you ever driving along the road when you found that the radiator cap had become loosened and that brown drops of water were being sprayed upon the hood? The indication was perfectly plain—the water in the radiator was dirty. It might be well, once or twice a year, to take a solution of common soda and pure warm water and run it through the radiator by the operation of the motor. Afterwards drain off the liquid and clean out your machine with water before re-filling for road use.

In the summer season, people are constantly talking about the saving of gasoline. Do you realize that radiator and hood covers will economize on fuel in winter-time. This has been established beyond any question. The covers do not allow the engine to cool off rapidly and so reduce the amount of effort necessary to its starting. Some of these accessories are simply plain wool and cotton material, others are built up of grain artificial leather, heavily padded and quilted in diamonds, and the others have been constructed of silk mohair. The prices are extremely reasonable, and there is no doubt but that the benefit accruing from them justifies the expense.

There are a few interesting things to remember about cone clutches which, as you know, are utilized for the purpose of taking the load from the motor after it has been started and putting it to use. Never get oil or grease into the clutch housing, as there is a duty for them to perform and they may cause the clutch to slip. Also remember that constant use or abuse makes the clutch hard and unresisting. It is sometimes good policy to apply very fine fuller's

earth. A small quantity of neatfoot oil is also good, and some car owners claim that turpentine has its advantages. We would advise those drivers who wish to exercise the utmost care, that it is well to control the car with the throttle as far as possible, but never, under any circumstances, have your foot in any position that will make it difficult to reach the clutch in a hurry.

If your auto has been standing for any length of time these cold mornings, you will experience a little difficulty in starting. Under these circumstances do not forget to pull the button on the cowl or instrument board. Of course, we refer to the button which cuts the air from the carburetor. Should you not have an appliance of this kind, the same effect can be produced by asking a friend to hold his or her hand over the air intake of the carburetor. There is another method, and that is by pressing up and down the little button on top of your carburetor. From either one of these three operations you will get a rich mixture which should take fire readily. In the old days we primed the motor by pouring in gas, the same way that we primed a pump by pouring in water. The movements we have described, however, take the place of the antiquated system of priming.

Why do some cars of standard manufacture have three-quarter instead of U doors in the tonneau? This can be explained when we state that in the machines referred to the engine has been sunk in the frame in order to provide a better motor balance. The policy of the company has been "Safety First." U doors are very comfortable, but, where big power plants have been installed, it is not always possible to give this minor convenience and guarantee safety at the same time. We mention this as the matter frequently comes up for discussion. Speaking of motor balance, we need only say that the lower the centre of gravity, the greater the ease and surety of operation in any piece of machinery.

AUTO.

Stopping the Car.

EDITOR "THE FARMER'S ADVOCATE":

In your issue of the Advocate of October 19, under the heading, "Automobiles, Farm Machinery and Farm Motors," there appears an article dealing with the stopping of a motor car to which I cannot agree.

The first paragraph says: "Never stop your car by using the service brake if it is at all possible to utilize the clutch, and never under any circumstances use the brake without first pressing down the clutch." I think that this is very poor advice and the arguments in its favor wrong. I give herewith my reasons for saying that in order to stop a motor car the service brake should be used with the clutch engaged.

1. "Economy in tires." In stopping a car if the clutch is released before applying the brake the rear wheels are allowed to slide when the brake is applied. If the brake is applied with the clutch engaged the rear wheels must revolve. The sliding of the rear wheels on the road surface you must agree is more wearing on the tire than the revolving action would be.

2. If the road surface is wet the tires will slide when the brake is applied if the clutch is released. This causes skidding, which at all times is very dangerous. If the brake is applied with the clutch engaged

the rear wheels must revolve, and while revolving the tendency to skid is removed.

3. A car can be stopped much quicker by applying the brake with the clutch engaged. For when the brake is applied in this manner the car cannot slide and the momentum is at once stopped; the brake working on the drum acts against the engine, giving greater friction to the tires and so stopping the car.

I have been informed that one of the test cases in examining for chauffeur's permit is to see how the applicant would stop his car. If he releases the clutch before using the brake marks are scored against him.

I drive a Cadillac car and have been instructed by one of the mechanics to release my clutch as seldom as possible. I have been driving for some eight years now, and find personally that the use of the service brake while the clutch is engaged is the more satisfactory method of stopping my car.

York Co., Ont.

NORMAN H. CAMPBELL.

Ans.—The best newspaper and engineering authorities in the automobile world do not agree with your contention, but rather with ours. Let us repeat that it is never wise to stop your car by using the service brake, if it is at all possible to utilize the clutch. The success of the automobile business must inevitably rest in direct ratio to the economy with which machines can be operated, and there is no shadow of doubt regarding the advisability of bringing any vehicle to a complete stop solely by shutting off the power. When this method is pursued, it is not only saving in gas but in tires and machinery. It must be patent to anyone, that a brake should not be asked to fight against the speed of an engine as well as the momentum of the car, and this it is necessary to do if the clutch is not released. When your clutch is engaged, one wheel does the skidding, but when it is out, two wheels perform the same operation and the latter is the safer. This is an established fact.

AUTO.

Can You Tell Iron From Steel?

In many instances a farmer is at a loss to know whether a piece of metal is iron or steel, be it in a machine or in bar form.

There are numerous methods used to distinguish between these, of which the following are the four most common:

First: The method most commonly used is to tap the metal with another piece of metal or to drop it on a hard surface, a concrete floor will serve, and note the sound made. If the metal has a clear ring it is steel, if a very dull or dead sound it is iron.

Second: Examine the surface and corners of the piece in question. If the surface has a glass smoothness and the corners are sharp it is steel. If the surface be rough and the corners somewhat rounded, it is iron.

Third: Touch the metal to an emery wheel and observe very closely the sparks given off. If all the sparks burst after leaving the wheel it is steel. In steel some of the sparks burst and then the particles burst again. In iron this never happens and but very few of the sparks burst.

Fourth: A final method, if the person is still in doubt, is to break the metal. If the fracture shows up fibrous with a dull appearance, it is iron. If the break is clean and the particles have a luster it is steel.—H. A. Schott, Colorado Agricultural College, Fort Collins, Colorado.

Storing Farm Machinery.

For a great many farmers storing farm machinery is no problem. They do not store it. For others it presents difficulties, for they would like to store it and have not a suitable place. Still others have the implement shed, but are more or less careless in getting their machinery to it and in packing it away; and a fourth class have the shed, know that it pays to keep their machinery inside and keep it there in first-class order so that no time is lost when any machine, implement or tool is required.

The first class of people mentioned are more or less hopeless; they do not seem to realize that rust and decay quickly consume the best of implements and machinery which represent their good money. They are just careless and indifferent about their binders, mowers, rakes, cultivators, disks, plows, harrows and the whole business, and these may be found scattered about the place, under trees, in fence corners, down the lane or behind the barn, rather than inside. They have the biggest implement shed in the world—all outdoors—and they scatter their valuable property around as though they owned all the shed.

The second class of farmer is generally a careful man who keeps most of his machinery inside, even though he has no regular implement shed. Crowding in his barn or drive-shed is all that keeps him from having all his machinery and implements well-stored at all times. This man usually finds time to gather up all the implements and machinery about the place and pack them away on a part of the drive-shed floor or on one of the drive floors in the barn before winter sets in. He is the man who will have an implement shed before long, because, by taking care of things on the farm, he will soon make money enough to build an implement shed, for he understands the benefit such would be. For the man with the big implement shed badly arranged and whose implements and machinery are found in the fields when they should be inside, there is little excuse, and there are altogether too many of this class in Ontario. Why anyone will allow plows to freeze in at the back end of the farm, cultivators to stand in the fence corner for weeks at a time, and even more expensive machinery to be exposed to the weather for many days when they have a large enough implement shed to house them all is almost beyond conception, and yet such is the case. We have been in implement sheds where the machinery, implements and tools were so badly jumbled up that the shed was a nuisance, too much time being lost in getting at what was wanted from time to time.

For the man who has the shed and keeps his implements therein at all times very little need be said. He knows what the shed is for and uses it for that purpose. His binder and mower and such machines as are used only at a certain season and are not wanted at any other are put in the most remote corner, while those machines and implements, such as cultivators, disks, manure spreader, plows, etc., are arranged at the front of the shed where they may be hitched on to at any time without moving half a dozen other machines or implements out of the way. His implement shed is an orderly place, or, if you like, simply a well-arranged file of his farm necessities.

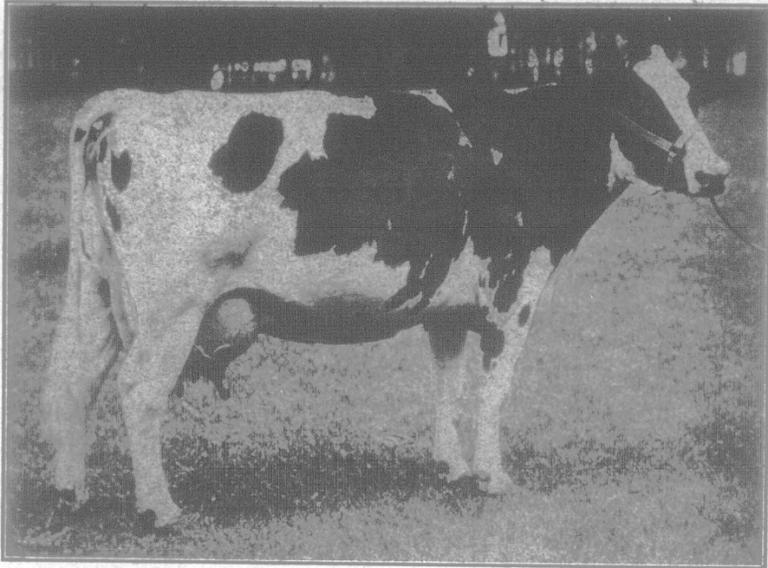
There are a few little things to remember in putting implements and machinery away for the season. In the first place, whether you have a special shed or not, put the implements under cover. The barn floor is just as good if not quite as handy as the implement shed. Clean all the implements well, take all the dirt off the disks, the cultivator teeth and the plow, and put a little oil or grease on; this will prevent rust, and make them work better in the spring. Arrange things so that all nuts may be gone over and loose ones tightened during the winter oil-season; prepare to wash up the wooden parts, if dirty, and during mild weather give them a coat of paint. Take the teeth from the harrows, and have them sharpened ready for the next year, and they may be brought home from the shop and put in place sometime during the winter. Take all the knives from mowers and binders; put them where they may be looked over, sections replaced and all sharpened ready for next year. A little oil on the knife after grinding will prevent rust. Tongues may be taken from many of the larger machines and implements, painted and hung from the rafters. This saves space, and, especially with heavy machines, saves springing them out of shape.

The farm wagons are very often not considered with the implements, or at least are not stored as they should be. The life of the average farm wagon could be prolonged at least fifty per cent. if it were given the same care that the young man on the place gives his buggy or automobile. There is no reason why the wagon should not be kept washed clean and painted once in a while in order to prolong its usefulness. A corner of the implement shed where one is being built, or is built, should be set apart for a little workshop in which a stove is kept, and this painting and repair work done in the winter. A forge and a few blacksmithing and carpenter tools will be a profitable investment on most farms.

THE DAIRY.

Relationship of Feed Consumed to Milk Production.

When some feeds are scarce and all are high in price the question which naturally arises in the minds of dairymen is, are all the cows paying market price for feed consumed and leaving a fair margin of profit? Evidently the herd as a whole is doing so, or the cows would not be kept, but to arrive at a definite answer by mere supposition may lead one far astray. Circumstantial evidence proves that some cows are much more profitable than others, but, according to statistics, the value of the product of the average cow in Canada is less than the cost of her feed. If this is the case, where does the cash come from to pay for labor, interest on investment, depreciation in value, etc.? No doubt but that the herd returns a profit or the dairyman could not stay in the business. The fact is that while some cows are boarders their stablemates are giving good returns for their feed and thus bringing the balance on the right side of the ledger. The profits would be larger, however, if the entire herd did as well as the best cow. The cows may all have the same breeding, weigh about the same, eat an equal amount of feed, require the same attention and apparently give about an equal quantity of milk, but unless the scales are used to weigh the milk during the year it is difficult to determine what the cow is really worth as a milk and butter-fat producer. Furthermore, it is necessary to use the scales in order to determine the proper relationship between feed consumed and the milk yield. There never was a time when it was so necessary to conserve our forces as at the present. Labor is scarce, feed and stock are high, and dairy products are commanding record prices. It must always be borne in mind that whether a cow be a poor or a heavy milker she requires a certain amount of feed to maintain life. Feed, over that required for a maintenance ration, largely goes into production of either



Duchess Skylark Ormsby 124514.

World's champion butter cow over all ages and all breeds. Year's record: Butter, 1,506.36 lbs.; milk, 27,761.07 lbs. Average per cent. fat, 4.34. Seven-day record: Butter, 34.36 lbs.; milk, 558.10 lbs.

milk or meat. As yet a very small percentage of dairymen are keeping records of their herds, but those who do find that it pays them. There is a vast difference in animals' ability to convert feed into milk. Some will give a considerably larger quantity on a certain kind and amount of feed than others. The scales aid in finding out if it pays to increase the ration. This information can never be gained by guess work. No person can estimate to within two or three pounds the amount of milk in a pail, and four pounds a day for two hundred days comes to eight hundred pounds, or at the present price of milk, to about fifteen dollars.

In order to show dairymen attending the National Dairy Show that it was impossible to estimate the yield of milk, the butter-fat production, from the appearance only, those in charge of the record work in the State had on exhibition nine cows taken from average herds of which records had been kept during the past year or two. In fact, the cows appeared a little above the average in condition but were only ordinary grades, judging from color. There was the grade Shorthorn, Jersey, Ayrshire and Holstein. The old brindle cow was also there. On the manger in front of each cow was a chart showing the number of pounds of milk and butter-fat produced during the last lactation period, the cost of feed, what it had cost to produce one hundred pounds of milk, and one pound of fat. The age of the cow was also given, together with the date when she last freshened and the value of milk for each dollar's worth of feed on each day of the show. The man in charge gave a lecture on results that have been obtained in this work in different parts of the country, and by use of the charts emphasized the importance of every dairymen keeping records, not only of the milk produced but also of the feed consumed.

The remark was frequently heard "They look exactly like the cows I have at home; I wonder if there is as much difference in the returns." Others sized up the cows and were surprised that some inferior looking animals surpassed the better looking ones in production. It was an object lesson which drew large crowds and no doubt many will profit by what they saw and heard. The cows were fed on rations similar to those ordinarily used in the New England States. Clover and alfalfa hay made up the bulk of the roughage, and the concentrates were composed of bran, brewer's grain, oilcake meal, some oats, and cornmeal. Corn stover and silage also entered into the ration of the herd.

The figures showing the difference in production and cost of feed, with this herd of nine cows, will give a fair idea of the variation of the milk yield and profits of the average herd. Cow No. 1 gave 8,646 pounds of milk and 362 pounds of butter-fat in one lactation period, at a cost for feed of \$64.66. This figure out, that for feed alone it cost 75 cents to produce 100 pounds of milk and 18 cents to produce one pound of fat. This cow is seven years old. She last freshened on September 16, and on October 15 was producing milk to the value of \$2.04 for each dollar expended on feed. The cow standing beside her was a bigger, stronger cow and from the appearance of her udder one would judge that she would be a heavier producer. However, her record gave the milk yield as 3,823 pounds and 150 pounds of butter-fat. This is considerably less than half what cow No. 1 produced, but it only cost \$35.07 to feed her, which is also much less than it cost to feed the cow previously mentioned. However, figuring it out on the 100-lb. basis it cost 91 cents to produce 100 pounds of milk and 22.15 cents to produce one pound of fat. On October 15 she was only returning \$1.33 for each dollar's worth of feed, or 71 cents less than No. 1 cow. Number 3 cow gave 6,323 pounds of milk and 308.4 pounds of fat, at a cost of \$38.62. Alongside of her stood a cow that only gave 300 pounds more milk and 30 pounds more fat, but it cost \$59.16 to feed her, or \$20.54 for the extra 300 pounds of milk. These figures show the necessity of keeping records

of the feed as well as of the milk in order to determine the real profit made from the cow. It does not always hold good that the more a cow eats, the more she will produce. The breeding must be taken into consideration. Although there was only 300 pounds difference in the milk yield of the two cows previously mentioned, the one produced milk at 61 cents per 100 pounds, while with the other it cost 90 cents. Cow No. 5 was the heaviest milker of the lot. In the one lactation period she gave 10,008 pounds of milk which yielded 460 pounds of fat. However, it cost \$93.79 to feed this cow. Consequently, each 100 pounds of milk cost 94 cents for feed alone, and each pound of butter-fat 20.5 cents. This also shows that it is not the heaviest producer that is the most profitable. The relationship between the feed consumed and the milk and butter-fat yield must be taken into account. Cow No. 6 was a little above the average in appearance and one would think that she

would be a profitable cow to keep. She gave 7,557 pounds of milk and 232 pounds of fat in the year, which is a good deal above the average. However, she consumed \$82.95 worth of feed which brought the cost of 100 pounds of milk to \$1.09 and of one pound of fat to 36 cents. This shows that the butter-fat content of the milk is a factor to be taken into consideration. Cow No. 8 produced milk the cheapest of any. Her milk weighed 8,445 pounds, containing 346.5 pounds of fat. It cost \$56.92 to feed her, which was considerably less than it cost to feed the former cow which was not as heavy a milker. One hundred pounds of milk was produced at a feed cost of 67 cents and one pound of fat at 16.4 cents. The other two cows in the herd averaged up fairly well with the production mentioned. At the present price for dairy products all the cows gave a fair profit over the cost of feed consumed, but there was a difference of about \$52.00 in the profit made by the best cow and the poorest.

These figures were taken from the record sheets of cows that represent herds that are a little above the average. In fact, the cow that gave the least milk gave as much as the average cow of the Dominion, according to the latest statistics. We have reason to believe that there are scores of cows that do not begin to pay for the feed which they consume. If these were weeded out and the feed which they would consume given to the best cows in the herd, the average milk yield would be increased and the profits would be considerably higher. It has been proven time and again that the boarder cows cannot always be picked out with the eye. The use of the scales and tester are required. It only takes a few minutes each day to weigh the milk from each cow and record it on a sheet, but the figures will

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give authentic information as to the real value of each cow in the herd for milk and butter-fat production. Weigh the feed occasionally in order to gain some idea as to what it actually costs to keep each cow and thus enable one to figure out the profit. A little experimental work may also be done. Increase the concentrate ration a trifle and see if it makes any difference in the milk yield. Very often it will be found to pay to increase the amount of grain fed to some cows and to decrease the amount fed to others. It is only by keeping records that a dairyman is enabled to really know his cows.

Always Breed to Improve the Herd.

From the appearance of many herds the owners have for years been working along the line of least resistance. They have placed sires at the head of the herds, and there has been an increase in numbers, but a lack of a definite ideal. The individuals in many herds are little better than their ancestors were twenty-five years ago. This is indicated by the very slow rise in the average production of milk and butter-fat per cow. Not over an increase of 1,000 pounds in that time looks like slow improvement. However, alongside these average herds are some that were similar in type, conformation and production 25 years ago, but to-day the net returns are more than double that of the average cow. Why the vast difference in production? It is largely due to the one breeder having an ideal and ever breeding to reach it. Bulls that had the desired type and conformation and were backed by producing ancestors were placed at the head of the herd. The result has been that the progeny was generally superior to the sire and dam. Those that were not were weeded out. There was no place for boarders or "off" type animals in the herd. The other breeder thought more of the dollar in the hand than of the far reaching influence of a good sire. While the herd increased in numbers the same as the neighbors there was very little improvement in quality or production. The one looked at the breeding business through a long distance lens, and could see the results of always using sires that came up to a certain standard. He aimed at having a herd averaging so many thousand pounds of milk per year. It was considered too expensive to purchase these high producing females, hence the desired results were attained by breeding the cows he had to the best sire available. It took longer to reach the ideal over the route chosen, but it was a satisfaction to know that each generation was better than the previous one. The breeder who saw only the immediate outlay and returns still has an average herd. During the 25 years his animals consumed as much of the same kind of roughage as his neighbors and now they cost as much to feed, but barely return a profit.

These same types of men exist to-day, but it is time that all stockmen realized the value of deciding on breeding one class of stock and constantly improving it through the sire used. It must be remembered that all registered stock is not necessarily good stock. There are cull pure-breds as well as cull grades. Along with the breeding must always be considered the individuality of the animal.

When purchasing a sire to place at the head of the herd it is folly to allow a few dollars to stand in the way of securing one that has the backing and individuality that should improve the herd. Twenty, fifty or even a hundred dollars extra for a bull of the right stamp may pay big dividends by the increased value of the calves produced. It is almost impossible to estimate the value of a good sire. He either improves the quality of the herd or gives it a set back, not only for one year but for years to come. Every breeder should study pedigrees and know the points to look for when selecting an animal to place in the herd.

The price asked for a high quality bull may exceed the amount an individual breeder cares to invest in one animal. In this case the difficulty has been overcome by two or three breeders in one neighborhood co-operating in the purchase. The production of many grade herds has been raised from between four and five thousand pounds of milk to between seven and eight thousand pounds by using only sires of the right type, quality and breeding. Breeders of grade cattle as well as breeders of pure-bred stock should pay more attention to the selection of suitable sires.

HORTICULTURE.

Why so Many "Slacks?"

The telegraphic reports issued weekly by the Dominion Fruit Commissioner have indicated almost constantly that many of the Ontario and Nova Scotia apples are arriving in the Old Country markets in a slack condition. The reasons for this are not presented and there is no mention made of the boats being longer than usual in making the voyage. We must infer then that the cause lies in the manner in which the apples had been handled, beginning with the picking. There is considerable agitation in the Western States now to encourage the growers there to pay more attention to the picking and handling of their fruit. Competitors have improved their growing methods to such an extent that only by improving on their packages and manner of picking and handling the fruit can they expect to enjoy a

continuance of superiority in the commercial product. There is no doubt about it; growers almost universally have awakened to the great necessity of quality in the apple, and they have improved their cultural and growing methods in order to produce that result. The time will come when he who wishes to have a superior product will be obliged to lay particular emphasis on the picking and handling of his fruit. There are certain stages in the maturity of every variety when it should be taken from the tree, in order to obtain the best possible keeping qualities. Furthermore, the apples must be put into storage of a suitable temperature as soon as picked, for if left in the orchard and subjected to the effects of sun and dew they are sure to deteriorate. Picking and packing methods have been responsible for a good many "slacks" arriving on the European markets, in the past, and since the growers have made such strides in spraying and cultural methods it seems too bad that more attention is not paid to the handling of the fruit after it has been produced, at considerable expense, to obtain a superiority and good keeping qualities.

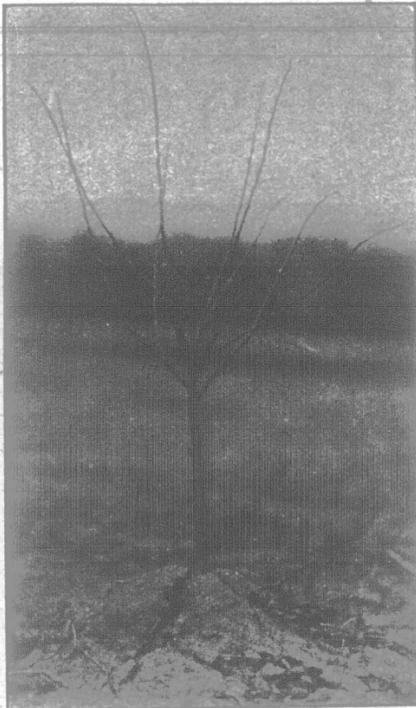
Remember the Mice.

After last winter's experience many fruit growers, who never considered it seriously before, will provide some protection for their young trees against mice. The damage wrought by this type of vermin was worse in some districts than in others, yet the injury was sufficiently widespread to induce farmers to take more precautions this winter. The circumstances which conduced to this misfortune may not be repeated this season, but still they might. The winter was long, and a considerable blanket of snow covered the ground late last spring when ordinarily the mice could get ample food in the fields. With this supply,

and grass away from the tree, and bank it up with soil, free from vegetation, to the height of about one foot. This mound should extend either a foot or a foot and one-half away from the trunk of the tree. The accompanying illustration shows a tree in an orchard near Trenton, Ontario, that was protected last winter in this manner. Unprotected trees in the same orchard suffered considerably, but it was demonstrated there fairly satisfactorily that the mound of earth affords a certain degree of immunity against mice. To make this practice all the more efficient, the snow should be tramped about the tree after each fall, which method seems to discourage the mice from channeling through it.

Perhaps the best way to protect the trees is to wrap them with wooden veneer, which comes very cheaply and is easily applied. An air space should be left between the veneer and the tree and the former should be secured with twine or some kind of cord. This material also affords considerable protection against sun scald. Ordinary building paper, which does not cost a great deal, is very serviceable. This also should be tied loosely, and the bottom made firm with a slight mound of earth. Tar paper will keep the mice away but injury to the trunks of trees has resulted from its use. It often pays well to invest in wire netting, which can be wrapped around the trunk where it will stand for years. Formerly this cost about seven cents per tree but during recent years the value of all kinds of wire has increased and the cost would probably be eleven or twelve cents at this time.

The mound of earth, the timely tramping of the snow, and the clearing away of all vegetation are preventive measures that will cost nothing but the labor involved, and they are quite effective. Veneer, and ordinary building paper, perhaps incur more expense but they are slightly more efficient.



The Mound Protection Against Mice.

to a large extent, cut off, they made channels to the young trees and destroyed thousands by girdling them completely. Many of these trees leaved out, as one would expect, but they began to show evidences of inadequate nutrition by the autumn and when the leaves began to fall they showed unmistakable signs of having stored up very little material to force them into life again next spring. Some trees lost only their outer bark and except for a slight set-back may survive if canker or other diseases do not attack them at that vulnerable spot. Those that are gone should be marked this fall and replaced with young trees in the spring. If we do not learn from experiences like these they constitute serious losses. We can profit by them, however, by adopting preventive measures that will insure against future depredations. Last winter's conditions may not be repeated at once, but in any case it is better to be safe than sorry.

Less trouble results from this source in orchards where clean cultivation is the practice. Even in that case many weeds or a crop grow up in the autumn and encourage the mice to move in search of food, and as the trees are often allowed to stand in a luxuriant growth of vegetation, the mice will find their way to them. We believe it would be advisable, so far as possible, to clean away all weeds or vegetation for a distance of a few feet surrounding each tree, for if the mice when channeling in that direction found no sustenance they would become discouraged and change their course. There are several methods whereby the grower can obtain a fair degree of immunity from vermin of this kind. Where he wishes to expend considerable labor and desires no financial outlay, perhaps the best system is to clean the weeds

A Grower's Views on Co-operation.

EDITOR "THE FARMER'S ADVOCATE":

May I congratulate the writer of that article about the United Fruit Companies of Nova Scotia Ltd., in the issue of August 12, on the fairminded way in which he presents the situation in Nova Scotia? I have been in this movement for nine years, but this year I have lost faith in the principle. I have come to the conclusion that co-operation at its best, means control by the majority, with majority standards, and majority methods. I conclude the grower of very poor fruit will do better out of the co-operative movement as his fruit requires a middle man who specializes in such a quality. It might be said he needs a separate co-operative company which could handle such low-grade stuff to advantage, only, as he is of less-developed mental capacity, he would probably make a mess of his organization. The very good grower may be better out of a company such as the present as their standards, while including his fruit, do not return a proportionate increase in price, for its extra quality. The medium quality grower is the best to unite, and the easiest to satisfy. His difficulty in the successful running of a co-operative company is, that abuses grow from such small beginnings. The average men, who are the vast majority in such a co-operative company, dislike to be conspicuous, are opposed to all disturbers of their peace, and allow such abuses to get their growth before attacking them. Their methods of reform are inefficient.

I believe co-operation is an effort to cure the wrong distribution of wealth. The evil is that all progress concentrates itself in the increase of land values, which belong to the public, but which at present go to the private owners of land. I believe Single Tax the best way to free the land for the use of the people and lessen the strain in competing for a living.

Kings Co., N. S. JOHN BUCHANAN.

Peach Growing in Ontario.

Peach growing in Ontario has been a costly experiment for many, and a profitable investment for some. While there are certain areas in this Province which will produce luscious peaches in great abundance, these areas are limited. Furthermore, within those same districts there are certain farms and small sections where it would not be profitable to plant peaches. There are pockets where the frost is likely to injure the trees or destroy the crop, and in the other places the atmospheric conditions are such that a peach tree will not prosper. Apples will grow over a much larger area and conditions for the same are not necessarily so closely defined, but the peach is a semi-tropical fruit and there are many things which must be taken into consideration before launching heavily into the production of this crop. A bulletin entitled "Peach Growing in Ontario" has recently been published by the Ontario Department of Agriculture. It was compiled by F. M. Clement and A. G. Harris, formerly Director and Pomologist respectively at the Horticultural Experiment Station at Vineland. The beginner should study this work before venturing upon an enterprise which requires considerable experience, and the grower of long-standing can derive considerable benefit from it, especially from those departments dealing with the production, packing and shipping of high-class fruit. Peach growing is by no means a fool-proof enterprise, especially in this country; it requires considerable study and thought before success will accrue to anyone engaged in it.

POULTRY.

Profits From a Pen of Barred Rocks.

EDITOR "THE FARMER'S ADVOCATE":

Some claim that there is no class of live stock kept on the farm that gives such good returns for money invested, feed and labor, as do hens; others are positive that there is no money in keeping them, especially when grain is high in price, and, according to rumor, many poultrymen are reducing their flocks this fall, while others are going entirely out of the business. If one man can make a profit in keeping poultry why cannot another? The breed, age of fowl, kinds of feed, housing and methods of caring for them must play an important part. Chickens have been raised and kept at a profit when confined in small quarters and all the feed purchased on the retail market. If a profit can be made under these conditions, it would appear that poultry raising should be a profitable business on the farm, where free range is available and feed is secured at first cost. Then, too, fowl on open range secure an ample supply of green feed and meat feed during the summer. In the winter mangels, turnips, and clover leaves can be secured quite cheaply to supply the green feed. Milk is highly recommended as a poultry feed, and on most farms it is available for the poultry. After the grain is harvested hens and chickens will pick a large portion of their feed in the field, thus making use of grain that would otherwise be wasted. However, with apparently ideal conditions for making a maximum profit, the complaint is made that there is no money in poultry. The past year or two eggs have commanded a high price during the summer months, but, of course, winter eggs bring the highest price. True, it costs more to produce eggs in cold weather than during the summer, but it is the hens that lay when eggs are high in price that make the greatest profit.

In a pen six and one-half feet square, five feet high at the back and seven feet at the front, built of single-ply matched lumber, I aim at keeping twelve birds. According to poultry authorities the pen is not large enough for the number of birds kept. However, during the past year the hens laid fairly well and appeared healthy at all times. There is no glass in the building, but on the west and south sides are openings covered with cotton. On warm days this is raised but is kept closed during the winter. The birds get plenty of ventilation through the cotton and as yet not one has had a frozen comb, although the thermometer dropped to twenty below zero a time or two. A layer of straw is kept on the floor of the pen and there is a small yard for them to run in. Barred Rock hens are kept and have proven fairly satisfactory on the limited range. They have paid their way but have come a long way short of the two-hundred-egg mark. Records of egg production and feed have been kept since October 1, 1915. At that time the flock consisted of three yearling hens, and nine May-hatched pullets. The first month only 27 eggs were laid; in November only 5, but the number increased to three dozen in December; nine dozen were laid in January and 15 dozen in February. During these months eggs were fairly high in price, which aided in increasing the profit. High-water mark was reached in June when 19 1/4 dozen eggs were laid. A part of this time two hens were brooding chicks, so in reality only ten were working at egg production. During July and August the egg yield kept up pretty well, but dropped to 3 1/2 dozen in September. The total for the twelve months was 133 dozen, or 133 eggs per hen. At the average price of 27 cents per dozen the returns for eggs alone were \$35.91. Fifteen chicks were hatched and raised and are worth at least 60 cents each for the table, but, as the pullets look as if they would soon commence laying, they are really worth a dollar apiece. However, at the former figure the gross returns for the year are \$44.91, or \$3.74 per hen. The feed bill for the twelve hens and fifteen chicks came to \$19.73, or \$1.64 per hen, leaving a net profit of \$2.10, which is a good rate of interest on the one dollar invested in each bird. The birds were well supplied with a variety of feeds, although at times they no doubt would have done better had more green feed and milk been available. The winter grain ration consisted of wheat and corn, half and half, fed in the litter of straw. The rule was to give each bird a small handful a day. Occasionally a mash of shorts and bran was fed and a couple of times a week rolled oats were fed in a hopper. During the year about 20 pounds of beef scrap were fed, and oyster

shell and grit were always kept in the pen. Occasionally a mangel or cabbage was fed during the winter, but the hens did not get as much green feed as they should have, owing to the difficulty in securing it. For the summer, corn was dropped from the ration and whole oats substituted. A few rolled oats were also fed and occasionally a mash of shorts and cornmeal. Since the first of July the birds have been on free range and were able to procure all the green feed they desired. Scraps from the table were fed, which possibly tended somewhat to keep down the cost of feed. It is doubtful if this average profit per hen could be made with a large flock. The larger the flock the greater the percentage of poor layers; even with a flock of twelve some of the birds laid almost double the number of eggs that others did. It is a difficult problem to pick all high-producers, and a large flock seldom receives the same attention that is given to a small one. This flock is considerably below the records claimed for flocks of bred-to-lay Rocks. However, they laid a goodly number of eggs and it is possible that they would have done better had they received more green feed and meat during the winter. On the basis of profit which I received it would pay well to keep one hundred hens. But, everyone who keeps fowl cannot be getting as high profits, else instead of disposing of their flocks, poultrymen would be increasing them. Feed is higher in price than usual, but, so are eggs.

Middlesex County, Ont.

AMATEUR.

FARM BULLETIN.

The Dentist.

BY A. E. ROBERTS.

Farmers are not much given to "dressing up." The nature of their calling makes it imperative that they wear overalls and jumper jackets, and once the habit of clothes carelessness is fastened on to a man it, like any other habit, is hard to change. Because of this we frequently see farmers going to town even in overalls and jumper jacket. Not long ago a farmer not a hundred miles from here had toothache. For convenience we will say his name is John Raft. This aching tooth bothered him for two or three days. His chewing tobacco failed to stop it. He tried alum and saltpetre and cream of tartar and spirits of camphor, but all to no avail. Finally he hooked up the geldings and went to town. He didn't feel like toggling up so he went in overalls, shoe packs and a battered felt hat. He put the team in the barn and then went over and fortified his system with a finger or two of gin. From there he walked up and down past the dentist's office two or three times, then swung up the steps two at a time and bolted in through the door. He found himself alone in a small outer office. There was a chair or two and a table with some daily papers. A hat rack on the wall contained somebody's hat. He looked around, then tiptoed towards the outside door. Just then the inner door opened and an anaemic looking individual in a clean white jacket looked out. "Got a tooth here I want—" "Just a minute," said he with the white jacket and disappeared back inside.

Considerable time passed and John was just about to break out when the door opened and a fellow from out his way came out. Greetings over and crop prospects discussed our friend passed inside. The dentist waved him solemnly to his big chair. "Got a tooth I want pulled," said John, "it's aching to beat all." The dentist picked up a little mirror that looked like a spoon and went on inside. When he had both hands and his head well in John's mouth he asked, "Which tooth is it?" John crowded a heavy finger in and groped for the culprit. "Thisshun up here," he choked. The dentist looked at it, then pried into it with a red hot Johnson bar, dug out the cotton batting and stuff. Next he hit it two or three cracks with a sledge hammer on the outside. This over he picked up the teaspoon looking-glass and went all over John's teeth upstairs and down. "You've got considerable dental work in there," he said. "Who did it?" "Oh, two or three fellows," said John. "Most of them real dentists."

The dentist went back inside again for a while. "Some awful work in there," he said. "A man that would do that kind of work is a disgrace to his profession." "I know it," John said. "Every dentist always knocks the other fellow's work. Now if

you will tell me I have a wonderful mouth-formation, different from anything you ever saw before, we will be through with most of the preliminaries, and you can go ahead and pull the tooth." "Pull it," the dentist said astonished. "Why, no, I won't pull it. I'll treat it for you, kill the nerve and fill it. The tooth is perfectly good." "All right," said John, "go ahead."

While the dentist was mixing his dope and arranging things, our friend read the various inscriptions on the walls. The first thing was a dental college certificate, and it was dated 1914. "A two-year-old," commented John, and read on. The name it seemed was Percival Algernon something. That was as far as he could go anyway. "Lord," he said, "to think of a man carrying around a name like that." Over in front of him a typewritten placard announced that a deposit must be paid on all work. He figured that would be all right in the case of these fly-by-nighters who worked for wages, bank clerks and so on, but, of course, it didn't mean him. Why he had enough money tied up in implements alone to buy this fellow out several times over, besides he had a couple square miles of ground and eight or nine hundred acres of wheat. It was different with him, he had to pay his debts, his home wasn't under his hat. He looked at the rest of the pictures and then the dentist plugged his tooth. "Come in day after to-morrow," he said. "All right," said John. "How much money will you want for the job?" "Three dollars," he said, "ah—ah—" "All right," John said and went out.

On the appointed day he was back. He was head over ears in work but he wanted to have this tooth business over with. The dentist removed the cotton, explored around a bit then put in some more dope and covered it up with sealing wax. "Come in Monday," he said. John expostulated. "You said you'd fix it to-day, I can't be running in here every few days, my time's too valuable just now." The dentist failed to be impressed but looked steadily at the typewritten notice. On Monday John came back again. The dentist removed the cotton and wax, blew out the hole with hot air then plugged it up again. "Come in Wednesday at two o'clock," he said. John began to see red. "Look here," he said. "You fill it now or leave it alone." "I can't," the dentist informed him, "it's not in shape to be filled, needs to be treated again. Come in Wednesday." "All right," said John, "you'll fill it then, eh?" "Ye-e-e-s," said the dentist. "If—" "If what?" "We require a deposit on all work before it is completed—" "Great Lord," John nearly exploded. He dived into his pockets and came up with 50 cents. He grabbed his hat and went out. In a few minutes he was in the bank. "Got any hundred dollar bills?" he demanded. They didn't, they had nothing bigger than a twenty. He got one of them and went out. He spread the money on the dentist's desk. "There," he said. "Now see if you can fill that tooth." The sealing wax and wadding came out and a silver mixture was jammed in. On the way home John, speaking perhaps to the geldings, said, "Now what in blazes do you think of that?"

Graft.

BY PETER MCARTHUR.

If a man wants to attract public attention either in the press or on the platform the most effective subject he can deal with is "graft." Everybody is ready to listen to or read about "graft" charges. There are supposed to be grafters in every department of every government, and in all lines of business. The plain people feel that they are being grafted upon by innumerable parasites and they talk about it wrathfully whenever a few of them have met together. Because of this widespread interest in the subject I am glad that I have a new phase of "graft" to discuss this week. You may not like it but I want you to read about it for it gets pretty close to home for a good many of us. While having a heart to heart talk with a Member of Parliament some weeks ago he made a few charges of a kind that he would never dare to make in public. As I am convinced that a majority of our members of parliament are in the same position as he is, I am going to take the responsibility of making the charges for them. It is just possible that we have been less than fair to our representatives in the past. Too many of us are inclined to treat them as the people in Barrie's story "The Little Minister" treated Wearywards. They elected the poor man to the position of Constable, and then no one would be seen speaking to him on the street. After we elect our members with much enthusiasm we begin to howl about graft, and in some cases we "use them for our mirth, yea for our laughter when we are waspish." But now that I have heard an M. P.'s side of the story my sympathies have been aroused, and I want to say something in their defense.

The member of parliament who honored me with his confidence complained bitterly that it is impossible for him to make ends meet with the salary he gets. Of course that sounded amazing, for two thousand five hundred dollars a year with free transportation on the railroads should enable an ordinary Canadian citizen to worry along comfortably. I naturally asked him to explain, and this was his answer. "I can't make ends meet because my constituents graft on me so unmercifully."

Listen to that, will you? Now, what have you



Approaching the Last "Quack."

got to say for yourself? You never thought that grafting charges would come so near home as that, did you? When the member explained, I saw that his charges were weighty and that he had a real grievance though he did not dare to say anything about it in a public way. As member of parliament for his riding he is expected to contribute to the prize fund of every fall fair and school fair that is held. He is also expected to give liberally to all charities, and whenever there is a collection to pay off a church debt he is expected to come across with a cheque that is in keeping with his position. When the boys organize a base-ball team they touch him for a contribution and when the young ladies hold a bazaar he must attend and be a liberal spender, and he is expected to look pleasant about it too. Whenever there is need of a chairman at a tea-meeting or concert in any part of his riding he is expected to jump at the invitation, and if it costs him several dollars for auto or livery hire he must bear the expense from his own pocket. When he is at the Capital if a constituent happens along the member must show him liberal hospitality, and buy him mild cigars and expensive dinners at the best restaurants. If you take the trouble to figure out just what these demands would amount to in a large constituency each year you will find that the total is enough to knock the tail feathers out of the sessional indemnity.

The result of this grafting by constituents is more serious than most people think. To begin with it keeps out of parliament many men who should be there. Some years ago I had a talk with a farmer who had been urged to take the nomination in a riding where his election would have been almost certain. He explained that he could not afford to give his services to the people in this way because the member who was retiring was a wealthy man who had set a pace in the way of supporting local institutions that no man of ordinary means could keep up with. He headed every subscription with a bountiful contribution and expended on his constituents at least the full amount of his salary. A poorer man elected to his position would soon find himself despised and regarded as a tight-wad because he could not give as lavishly as his predecessor. The constituency had been practically debauched because the member encouraged the people to graft on him, and not until the memory of his free spending has been forgotten will it be possible for a farmer or ordinary citizen to accept a nomination.

There is another and more sinister side to the situation created by the grafting of constituents on their member. Some time ago a member of parliament who was criticised for owning stock in a corporation protested that in order to live up to his position as a member of parliament was obliged to have an income outside of his sessional indemnity. This being true our representatives are exposed to many temptations from the insidious representatives of big business who haunt the lobbies of parliament. These engaging gentlemen are always ready to give tips that will lead to profitable investments, and if the stocks in which investments are made should be affected at any time by legislation it would be hard for the legislative investor to give his sympathies to the public welfare. An experienced manipulator of business

and politics once assured me that in all his experience of parliamentary work he had not met half a dozen members who were open to cash bribes. At the same time he admitted that he had always found it possible to influence a considerable number through their business connections. From this it would appear that if we want to do away with grafting in the country we had better begin with the reform right at home and stop grafting on our representatives. Their salaries are none too large for the services they are expected to render, and they should be allowed to keep their full salaries so that they can afford to steer clear of business entanglements. Just keep this in mind the next time you are getting up a subscription list for anything. Of course, if you ask your member for a contribution it puts him in the position of not daring to refuse for fear of offending you and losing your vote or influence. They should not be expected to give any more than any other well-to-do citizen, and they should not be approached for such contributions except in the neighborhood of their homes where they could give like other citizens.

A Great Stock Sale at the O. A. C.

The third public sale of pure-bred stock held at the Ontario Agricultural College, Guelph, Thursday, October 26, was an unqualified success in every particular and seller and buyer were pleased from start to finish. The stock offered were a good lot and they brought a fair price. Distributed as they were over Ontario, they should do good to live-stock breeding generally.

The Scotch Shorthorns sold were a very attractive lot composed of the Augusta, Lancaster, and Roan Lady families, three of the most noted of the breed. Harry Fairbairn, of Thedford, got a good bargain in the choice young bull Proud Augustine, an Augusta bull by Proud Diamond, the College sire. He is a rare good bull and in Mr. Fairbairn's hands should be heard from later. Gordon Auld, of Arkell, took the choice young four-year-old cow, College Augusta 4th, a daughter of the former College herd sire now at the head of Mr. Auld's herd and this year's champion of the Fair circuit, Burnbrae Sultan, for \$600—the highest price of the sale. She is bred in the purple and has gone into good company. Another daughter of Burnbrae Sultan stood second highest in the price list, Augusta O. A. C. 3rd., a big white three-year-old, going to Joseph White, St. Mary's, for \$460. The Roan Lady bull, Roan Diamond, one of the most promising youngsters of the sale, a March calf, fell to the bid of Kenneth Mackenzie, Kincardine, at \$340. P. J. McLean & Sons, Puslinch, got a growthy, masculine youngster in the Lancaster calf, Lancaster Diamond, for \$240. Three choice heifers fell to the bids of J. A. Watt, Talbot Bros., and Harry Fairbairn, for \$225, \$325 and \$235 respectively. Eight Scotch Shorthorns sold for \$2,875, or an average of \$359.37.

Only three dual-purpose Shorthorns were offered and they were all small calves. They brought \$70, \$130 and \$110, respectively.

There was a choice bunch of Holsteins sold. Boutsje Lad, a son of Boutsje Q. Pietertje De Kol, and Johanna Rue 4th's, Lad, topped the lot at \$400, going to the Kemptville Agricultural School. He is a great bull in size, substance, breeding and quality, and in a herd of high-record females might easily be worth

double the money. Toitilla Rue was the highest-priced female going at \$245. Kemptville School took the bulk of them. They must be congratulated upon getting these good cattle, but at the same time it is doubtful whether it is good policy for such government institutions to buy at this government sale. Such, in time, may not be looked upon with favor by the individual breeder or buyer. This draft sale is intended to be for the good of the farmers and breeders. Fifteen Holsteins brought \$2,225, or an average of \$148.33.

Three Ayrshire bull calves sold cheap at \$196, or an average of \$65.33 each.

Three dairy grades brought \$265.50. One cow selling for \$150.

Eight Yorkshire sows bred brought \$389, or an average of \$48.62 each. Twenty-three young Yorkshire sows brought \$586.50, an average of \$25.50.

Five young Berkshire sows brought \$117; an average of \$23.40.

Two Oxford breeding ewes were knocked down at \$27 each, four Southdowns at \$27 each, three Leicester ram lambs at \$20, \$18 and \$25 respectively, four Shropshire ram lambs at \$26, \$20, \$21, and \$20 respectively. Total for sheep \$312, or an average of \$24 each.

Two fat steers weighing 1,770 lbs. and 1,760 lbs. respectively fell to the bid of the Live Stock Branch of the Department of Agriculture, at 14½ cents and 11 cents per pound, figuring out at \$449.15 for the pair. These steers will form part of an educational feature of the coming Winter Fair at Guelph.

The sale totalled \$7,725. Following is a list of buyers of pure-bred cattle selling for \$100 or over:

Scotch Shorthorns.	
Proud Augustine, Harry Fairbairn, Thedford.....	\$450
Lancaster Diamond, P. J. McLean, Puslinch.....	240
Roan Diamond, Kenneth Mackenzie, Kincardine..	340
College Augusta 4th, Gordon Auld, Arkell.....	600
Augusta O. A. C. 3rd., Joseph White, St. Mary's...	460
Lancaster Pride, J. A. Watt, Elora.....	225
Proud Lady, Talbot Bros., Rockwood.....	325
Diamond Lady, Harry Fairbairn.....	235
Dual Purpose Shorthorns.	
O. A. C. Barrington-Duchess 3rd., Anson Kirk-ness, Mt Forest.....	130
O. A. C. Princess Darlington 3rd., D. H. Snyder, New Dundee.....	110
Holsteins.	
Boutsje Lad, Kemptville Agricultural School.....	400
Molly Rue 2nd., W. A. McKillican, Maxville.....	155
Elmdale Floss, F. G. Hutton, Welland.....	160
Toitilla Rue, Kemptville Agricultural School.....	245
Molly Rue O. A. C., Neil McLean, Rockwood.....	130
Mercena Rue Lass, Kemptville Agricultural School.....	125
Toitilla Rattler's Lass, Kemptville Agricultural School.....	100
Mercena Netherland's Pride, Kemptville Agricultural School.....	150
Molly Pontiac Pride, Kemptville Agricultural School.....	100
Mercena's Pontiac Pride, Kemptville Agricultural School.....	145
O. A. C. Walker, Kenneth Mackenzie.....	100
Count Rattler Pontiac, John C. Brown, Stamford.....	205

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts of live stock at the Union Yards, West Toronto, Monday, Oct. 30, consisted of 275 cars, 4,779 cattle, 259 calves, 1,543 hogs, and 4,880 sheep. All cattle active and strong. Lambs 15 to 25 cents lower; sheep strong. Calves steady. Hog market, so far, very uneven and 25 cents lower.

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

	City	Union	Total
Cars.....	100	808	908
Cattle.....	1,304	9,700	11,004
Calves.....	142	918	1,060
Hogs.....	1,104	12,934	14,038
Sheep.....	1,562	10,923	12,485
Horses.....	82	2,141	2,223

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

	City	Union	Total
Cars.....	60	767	827
Cattle.....	640	9,034	9,674
Calves.....	48	8,382	8,430
Hogs.....	806	10,792	11,598
Sheep.....	2,400	904	3,304
Horses.....	49	3,557	3,606

The combined receipts of live stock at the two markets for the past week show an increase of 81 cars, 1,330 cattle, 2,440 hogs, 9,181 sheep, but a decrease of 1,383 horses when compared with the corresponding week of 1915.

The live-stock market opened on Monday with six thousand head of

cattle on sale which was the heaviest run of the year; despite the large run all grades of cattle sold steady to firm. The bulk were of the common to good kind, very few real choice animals being on sale. Choice butcher steers were very much in demand all week and were readily disposed of at good prices. Handy weight butcher heifers sold a little better than the previous week. Good to choice butcher cows were strong and sold at from \$6.25 to \$6.50. Canners and cutters were active and strong, selling at from \$3.75 to \$4.50. Stockers and feeders were much in demand, the better class selling at from \$6.25 to \$6.75, while a few real choice lots sold at \$7.00. Milkers and springers of breed and quality were strong and sold at from \$80 to \$120 for real choice cows. Calves.—The calf market was slow and draggy all week, and sold at from \$1.25 to \$1.75 lower than the previous week. Lambs were strong and active the first of the week, choice lots selling as high as \$11.40. The bulk, however, sold at from \$11.25 to \$11.35; they weakened somewhat toward the end of the week and sold 25c. lower. Sheep were much in demand, the better class selling at from 8c. to 9c. per lb. Farmers have bought a large number for breeding purposes. Hogs.—Although packers made a strong attempt to lower the price of hogs they were not successful. They quoted weighed off cars at \$10.90 but had to pay \$11.75 to \$11.85 and in some cases for choice lots they paid \$11.90.

Quotations on live stock.—Choice heavy steers, \$8.25 to \$8.50; good

heavy steers, \$7.50 to \$8. Butcher steers and heifers, choice at \$7.25 to \$7.75; good at \$6.75 to \$7; medium at \$6 to \$6.50; common at \$5.50 to \$5.75. Cows, choice at \$6.25 to \$6.50; good at \$5.75 to \$6; medium, \$5.25 to \$5.50; common at \$4.25 to \$5; canners and cutters at \$3.75 to \$4.50. Bulls, choice at \$6.75 to \$7; good at \$6 to \$6.50; medium at \$5.50 to \$6; common at \$5 to \$5.50. Feeders, best, \$6.50 to \$6.75; medium, \$6 to \$6.25; common, \$5 to \$5.75. Stockers, light, good to choice, \$6 to \$6.50; common to medium, \$4.50 to \$5.50. Milkers and springers, \$55 to \$120. Spring lambs, choice \$11 to \$11.25; cull lambs, 8c. to 8½c. per lb. Light butcher sheep, 7c. to 8½c. per lb.; heavy, fat sheep and bucks 6½c. to 7½c. per lb.; culls, 2c. to 5c. per lb. Veal calves, choice at 10c. to 11c. per lb.; heavy fat and grassers at 4¼ to 7½c. per lb. Hogs, fed and watered, \$11.50 to \$11.60; weighed off cars, \$11.75 to \$11.85. Less \$2 off light hogs, \$2.50 to \$3.50 off sows, \$5 off stags, and one-half of one per cent. government condemnation loss.

Breadstuffs.

Wheat.—Ontario, according to freights outside—No. 2 winter, new, per car lot, \$1.68 to \$1.70; No. 1 commercial, old, \$1.63 to \$1.65; No. 2 commercial, old, \$1.53 to \$1.56; No. 3 commercial, old \$1.44 to \$1.48; Manitoba wheat (track, bay ports)—No. 1 northern, new \$1.91½; No. 2 northern, new, \$1.88½; No. 3 northern, new, \$1.83½; No. 4 wheat, new, \$1.75; old crop trading 3c. above new crop.

Oats.—Ontario, according to freights

outside, No. 2 white, 60c. to 62c. nominal; No. 3 white, 59c. to 61c., nominal; Manitoba oats (track, bay ports)—No. 2 C. W., 65½c., according to freights outside; No. 3 C. W., 64c.; extra No. 1 feed, 64c.; No. 1 feed 64c.

Peas.—According to freights outside; No. 2, \$2.30 to \$2.35.

Rye.—According to freights outside, No. 2, new, \$1.23 to \$1.25.

Buckwheat.—According to freights outside, per bushel \$1.05.

Barley.—Ontario malting, \$1.05 to \$1.07, nominal; feed barley, 98c. to \$1.00, nominal.

American Corn.—No. 3 yellow, \$1.15, track, Toronto.

Flour.—Ontario, winter, new, according to sample, \$7.85, in bags, track, Toronto. Manitoba flour—prices at Toronto were: first patents, \$9.70; second patents, \$9.20, in jute; strong bakers', \$9.00, in jute; in cotton, 10c. more.

Hay and Millfeed.

Hay—New, car lots, track, Toronto, No. 1 per ton, \$12 to \$13; No. 2 per ton, \$10 to \$11.

Straw.—Baled, car lots, \$9 to \$10. Bran.—\$30 per ton, Montreal freights; middlings, \$34 per ton, Montreal freights; good feed flour, per bag, \$2.50, Montreal freights. Shorts, \$32 per ton.

Country Produce.

Butter.—Creamery, fresh-made pound squares selling at 41c. to 42c. per lb.; creamery solids, 39c. to 41c. per lb.; dairy, 32c. to 33c. per lb.; separator dairy, 37c. to 38c. per lb.

Eggs.—New-laid eggs in cartons 45c.

per dozen; fresh eggs, selects, in case lots, 39c. per dozen; eggs, fresh, case lots 36c. per dozen.

Poultry.—Live-weight prices—chickens, 15c. per lb.; ducks, 12c. per lb.; turkeys, 25c., per lb.; fowl, 4 lbs. and over, 14c. per lb.; fowl, under 4 lbs., 12c. per lb.

Beans.—Hand picked, \$5 per bushel; prime white, \$4.40 to \$4.80, according to quality.

Cheese.—June, 24c. to 25c., per lb.; new, 23c. per lb.; twins, 23½c. per lb.

Honey.—60-lb. tins selling at 12c. per lb.; glass jars \$1.00 to \$2.00 per dozen; combs, \$2.50 to \$3.00 per dozen.

Hides and Skins.

City hides, flat 20c.; country hides, cured, 19c.; country hides, part cured, 18c.; country hides, green, 16½c.; calf skins, per lb., 25c.; kip skins, per lb., 22c.; sheep skins, city, \$2.50 to \$3.50; sheep skins, country, \$1.50 to \$3; lamb skins and pelts, \$1 to \$1.50; horse hair, per lb., 38c.; horse hides, No. 1, \$5.50 to \$6.50; No. 2, \$5 to \$5.50; wool, washed, 42c. to 46c. per lb.; wool, rejections, 35c. to 38c. per lb.; unwashed, 32c. to 33c. per lb.; tallow, No. 1, 8c. to 9c.; solids, 7c. to 6c.

Wholesale Fruits and Vegetables.

Receipts of home-grown fruits and vegetables were very light during the past week, and the quality was quite poor. The imported fruits began to come in in larger quantities.

Peaches came in in very small quantities, and sold at 20c. to 30c. per 8 qts., and 25c. to 40c. per 11 qts., with a few good ones bringing 75c. to \$1 per 11 qts.

Pears were mostly of the Kieffer variety and sold at 20c. to 30c. per 11-qt. basket, a few Anjous and Duchesses bringing 40c. to 50c. per 11 qts.

Grapes advanced, as the receipts declined, selling at 25c. to 30c. per 6-qt. basket.

Crabapples were shipped in small lots, selling at 50c. to 75c. per 11-qt. basket.

Quinces remained about stationary in price, selling at 50c. to 80c. per 11-qt. basket.

Oranges are quite high priced, the late Valencia selling at \$5 to \$6 per case, Jamaica bringing \$2.50 to \$2.75 per case.

California lemons brought \$7 per case.

Vegetables continued to bring high prices. Beets sold at 30c. to 40c. per 11-qt. basket, \$1.35 per bag; cabbage, \$2.25 to \$2.50 per bbl.; carrots 30c. to 40c. per 11-qt. basket, and \$1.25 per bag; cauliflower \$1 to \$2 per dozen; celery, 25c. to 30c., 40c. to 60c., 75c. to 90c. per dozen, \$4.75 per case; onions, Spanish, \$4.75 per case, American \$3.25 to \$4 per 100-lb. sack; parsnips, 40c. to 40c. per 11-qt. basket.

Potatoes advanced, the New Brunswick Delawares selling at \$2 per bag-B. C.'s at \$1.90 and Westerns at \$1.80 per bag.

Montreal.

Cattle were in fair demand on the local market last week but supplies were limited. Choice stock was particularly scarce practically none being offered. Sales of good cattle took place at around 7¼c. to 7½c. per lb., while fair stock sold at 6¼c. to 7c. and common steers as low as 5¼c. per lb. Butchers cows showed little change, the price ranging from 4½c. to 6¼c. per lb., while bulls ranged from 5c. to 6½c. There was a very good demand for canning cattle, and packers cleaned up the market at 4¾c. to 5¼c. for bulls and 3¾c. to 4¼c. for cows. Choice milch cows were in good demand and prices ranged from \$100 to \$110 each. The market for lambs continued firm and offerings were none too large. Ontario stock sold at 10½c. to 10¾c. per lb., while Quebec sold at 9¾c. to 10c. and sheep ranged from 6¾c. to 7½c. per lb. Calves were in good demand both for local account and for export to the United States and prices ranged from 9c. to 10c. per lb. for choice, while fair to good stock sold at 5c. to 8c. and common at 4c. per lb. Lambs were also in good demand for export to the United States. The price of hogs strengthened, choice lots selling at 11¾c. to 12c. per lb. and fair quality at 11½c. to 11¾c., weighed off cars.

Horses.—Dealers state that almost nothing is going on in the horse market aside from purchasing by the government.

Lumbermen are interested but the trouble seems to be that they cannot get sufficient men to go to the woods. Prices were:—Heavy draft horses, weighing 1,500 to 1,700 lbs. \$200 to \$250 each; light draft, weighing 1,400 to 1,500 lbs., \$150 to \$200; small horses \$100 to \$125 each; culls \$50 to \$75 each; No choice saddle and carriage horses are to be had, but these are worth \$200 to \$250 each.

Dressed hogs.—The market for dressed hogs was quite strong during the week and prices advanced in sympathy with the market for live. Fresh-killed Abattoir-dressed stock was quoted at 16½c. to 16¾c. per lb.

Potatoes.—The market for potatoes was very strong last week and prices were exceptionally high for the time of year. Supplies were barely moderate and sales of Green Mountains took place at \$1.70 per 90 lbs. in car loads ex-track, while Quebec potatoes sold at \$1.60. Smaller lots bring 20c. more per bag.

Maple Syrup and Honey.—The market for maple syrup was fairly strong and prices were 90c. to 95c. per 8 lb. tin; \$1.05 to \$1.10 each for 10 lb. tins and \$1.25 to \$1.50 for 13 lb. tins. Sugar was 13c. to 14c. Honey was not very active but prices held firm at 15c. per lb. for white clover comb; 12½c. to 13c. for white extracted and for brown clover comb. Buckwheat honey was 9c. to 10c. per lb.

Eggs.—Eggs become scarcer and dearer almost each week, and fresh eggs were unusually hard to obtain. They advanced to 48c. and 50c. per doz., this being for strictly new laid. The next grade sold at about 45c., while No. 1 selected were steady at 38c.; No. 1 candled at 34c. and No. 2 candled 30c.

Butter.—The market for creamery advanced once more, and the statement was made that the highest price ever paid in the country has been realized. Meanwhile wholesale quotations on finest creamery were 40½c. to 41c., fine grades being ½c. below and under-grades 39c. to 39½c. Dairy butter ranged from 31c. to 34c.

Cheese.—At the auction here, No. 1 white sold at 22c. and No. 2 at 21 11-16c. Quotations for finest Western colored were 22½c. to 22¾c., white being 22c. to 22½c. and Eastern white ½c. below this figure.

Grain.—Wheat has been going to new high records and was not traded in locally at all. Oats also advanced and No. 1 Canadian Western sold at 67½c.; No. 2 Canadian Western at 66½c.; No. 3 Canadian Western 65c. and No. 2 feed 64½c. per bushel, ex-store.

Flour.—This market advanced once more and new high record price were again quoted. Manitoba first patents were \$9.80; seconds \$9.30; strong bakers \$9.10 per barrel, in bags. Ontario winter wheat 90 per cent. patents sold at \$8.90 to \$9.20 per barrel, in wood and at \$4.25 to \$4.40 per bag.

Millfeed.—Prices were very firm but unchanged. Bran was \$28; shorts \$31; middlings \$33; pure grain mouille \$38 and mixed \$36 per ton, in bags.

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

Hides.—Beef hides advanced 1c. per lb. to 24c. for No. 1; 23c. for No. 2 and 22c. per lb. for No. 1. Calf skins were 32c. for No. 1; 30c. per lb. for No. 2; lamb skins jumped to \$2 each. Horse hides were \$1.50 each for No. 3; \$2.50 for No. 2 and \$3.50 for No. 1. Fine tallow was 8c. and rough 2½c. per lb.

Buffalo.

Cattle.—Offerings of cattle at Buffalo last week were again liberal, but, taking into consideration that the supply was largely of one class of stuff, a lightish and medium kind of half fat steers and medium, fair and common cows, trade was regarded as being very satisfactory. Market ruled fully fifteen cents to a quarter higher on shipping steers, and this advance was noted on the real choice butchering steers and heifers. There were around twenty loads of shipping steers and they were mainly Canadians, best of which sold from \$8.60 to \$8.85. Best native steers, that were on the medium weight order, ran from \$9 to \$9.25. Very few handy weight steers sold above \$8.25, but the demand was strong all week for the well-finished kinds. On stockers and feeders, the demand was strong for

the fleshy, good quality feeders and good quality yearling stockers, but a very common kind of stockers were slow sale; general trade, however, being quoted about steady. Feeders weighing up to eleven hundred were quoted up to \$7.50, but the general prices on the class of feeders coming were from \$6.75 to \$7.25 for the best, with the little common kinds down to a nickel, off colors selling even lower. Bulls brought good strong prices, the wide range being from \$5 to \$7.25. Milchers and springers sold at firm prices, the choice kinds being in especially good demand. Receipts for the week totaled 6,450 head, as against 6,725 for the preceding week, and 8,075 for the corresponding week last year. Quotations:

Shipping Steers.—Choice to prime natives, \$9.50 to \$10.25; fair to good, \$8.25 to \$8.75; plain, \$7.50 to \$8; very coarse and common, \$7 to \$7.50; best Canadian, \$8.40 to \$8.65; fair to good, \$7.50 to \$8; common and plain, \$7 to \$7.25.

Butchering Steers.—Choice heavy, \$8.25 to \$8.50; fair to good, \$7.50 to \$8; best handy, \$7.75 to \$8.50; fair to good, \$6.75 to \$7.50; light and common, \$6 to \$6.50; yearlings, prime, \$9.50 to \$10.25; fair to good, \$8.50 to \$9.

Cows and Heifers.—Best handy butcher heifers, \$7.40 to \$7.65; fair butchering heifers, \$5.75 to \$6.25; light and common, \$5 to \$5.50; best heavy fat cows, \$6.75 to \$7; good butchering cows, \$6 to \$6.50; medium to fair, \$5 to \$5.50; cutters, \$4 to \$4.50; canners, \$3 to \$3.75.

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

Stockers and Feeders.—Best feeders, \$7 to \$7.15; common to fair, \$5.25 to \$5.60; best stockers, \$6.50 to \$7; common to good, \$5 to \$5.50.

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

Hogs.—Trade last week, notwithstanding that the supply was the heaviest this season, was good. On the opening day, with close to 21,000 head on sale, prices were held steady, great bulk of the crop, which ran light, selling on a basis of \$10.25. Several decks, however, that carried more weight than the general run of stuff, brought from \$10.35 to \$10.50. Pigs were lower, selling mostly at \$9.50. Tuesday a few heavies reached up to \$10.60 and \$10.75, and other grades were but little changed; Wednesday's market was steady to a nickel higher; Thursday's market was strong, and Friday, under a 75 car supply, values went off 10 to 15 cents. Friday's top was \$10.40, though had any heavies been here they would have sold at \$10.50, if not more. On York-weight grades sales were made from \$10.25 to \$10.35, bulk \$10.25, and pigs landed mostly at \$9.50. Roughs sold good, bringing around \$9.50 and \$9.60, and stags \$8.50 down. Last week receipts reached approximately 46,500 head, as compared with 37,310 head for the week before, and 44,700 head for the same week a year ago.

Sheep and Lambs.—Market occupied a favorable position last week. Monday top lambs sold mostly at \$10.75; Tuesday bulk landed at \$10.65; Wednesday values were a dime higher; Thursday choice lots reached up to \$11, and Friday buyers got the bulk at \$10.85. Cull lambs sold strong all week, best ones bringing from \$9.50 to \$9.75, with skips as low as \$7.50. Top for yearlings was \$9, and wether sheep, although none were here, were quoted around \$8. Bulk of the sheep receipts were ewes, and the best ones sold from \$7.25 to \$7.50, with cull sheep \$5.50 down. Receipts last week were 23,300 head, as against 16,659 head for the week before, and 25,200 head for the same week a year ago.

Calves.—Trade on calves last week was the most unsatisfactory that sellers have witnessed for a long time back. The week started with top selling at \$11.00, and culls \$9 down. Demand after Monday continued light and for the next four days sellers were unable to advance prices, trade being slow at that. Fleshy calves with weight sold from \$6 to \$8, with some on the vealy order fetching up around \$9, and grassers, as a rule, went from \$5.50 down. Receipts last week were 2,850 head, being against 2,691 head for the week previous, and 2,300 head for the same week a year ago.

Cheese Markets.

Listowel, 21½c. offered; no sales later sold on street at slightly higher price; Iroquois, bid on board, 21¼c., no sales, sold on curb 22c.; Danville, Que., 21¼c.; Picton, 22¼c.; Alexandria, colored, 22½c.; white, 22c.; Napanee, 22 3-16c.; Mont Joli, 21½c.; Perth, 22c.; Cornwall, 22½c.; Vankleek Hill, 22¼c.; Belleville, 22c.; St. Hyacinthe, 21½c.; Montreal, finest westerns, 22¼c. to 22½c.; finest easterns, 21¼c. to 22c.; New York, specials, 21¼c. to 21½c.; average fancy, 21c.

Chicago.

Cattle.—Beeves, \$6.60 to \$11.65; western steers, \$6.15 to \$9.50; stockers and feeders, \$4.65 to \$7.75; cows and heifers, \$3.35 to \$9.50; calves, \$7 to \$11.

Hogs.—Five to 10 cents lower; light, \$9.45 to \$10.15; mixed, \$9.60 to \$10.30; heavy, \$9.60 to \$10.30; rough, \$9.60 to \$9.75; pigs, \$7.50 to \$9.35.

Sheep.—Lambs, native, \$8.50 to \$11.15.

Gossip.

Sale Dates.

Nov. 8.—Western Ontario Consignment Sale Co., Fraser House Stables, London, Ont., Shorthorns.

Nov. 9.—W. H. Littlefield, Aberdeen-Angus, Brantford, Ont.

Dec. 13.—Oxford District Holstein Breeders' Club, Woodstock, Ont., Holsteins.

Coming Events.

Nov. 21.—Ontario Vegetable Growers' Convention, Parliament Buildings, Toronto.

Nov. 22 and 23.—Ontario Horticultural Association Convention, Parliament Buildings, Toronto.

Dec. 1 to 8.—Ontario Provincial Winter Fair, Guelph, Ont.

Dec. 2 to 9.—International Fat Stock Show, Chicago, Ill.

Dec. 8 to 9.—Toronto Fat Stock Show, Union Stock Yards, Toronto.

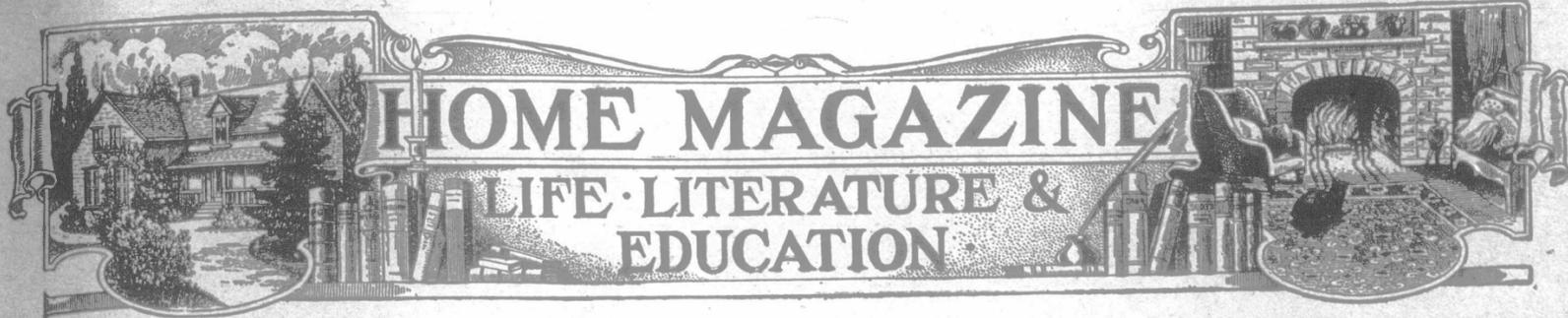
Cedar Valley Farm Sale.

Cedar Valley Farm is offering by auction on November 9 a number of registered Abetdeen-Angus cows and heifers, some of which are of the Larkin Farm breeding. A Percheron stallion, several Standard-Bred mares, and five Welsh ponies are also for sale. The farm is located at App's Mills, near Brantford. See advertisement in another column of this issue, and for further particulars write W. H. Littlefield, Kerby House, Brantford.

The London Sale of Shorthorns.

Breeders desirous of securing Shorthorns, males or females, cannot afford to miss the Western Ontario Consignment Sale Company's big auction sale. About eighty head, bred in the purple, will be sold. Nearly everything offered in males is of desirable breeding age, and practically all the females are young; many are bred and all are guaranteed to be breeders. Almost without exception noted Shorthorn families appear in every pedigree. The breeding is right, the individuals are right, and whether you want to buy or not you should attend this sale. The place is the Fraser House Stables, London. The date is Wednesday, November 8, and the sale commences at 12.30. For information regarding catalogue, terms, etc., write Harry Smith, Hay, Ontario, Secretary of the sale.

Farmers who have choice stock to market shortly would do well to enter in Toronto Fat Stock Show, Union Stock Yards, Toronto, December 8th and 9th, 1916, and secure some of the big premiums offered in addition to market price of their animals. This show has been coming to the front very rapidly and carries the best and largest exhibition of fat butcher stock in Canada and this year promises to be better than ever.



Japan's New Premier.

Lieut.-General Count Terauchi, formerly Minister of War. His appointment is regarded as a triumph for the army and the bureaucrats. Photo International Film Service.

The Sound of Rain.

BY MADISON CAWEIN.

Upon the heath the winds are laid;
and starkly
The thistles stand; their gaunt heads
stiffly massing,
Unmoving, stone-like, save when some
one passing
Stirs with his cloak their stalks that
rustle darkly.

And Heaven and Earth are grayly
one another's;
Mist-bound in one; the twain no more
divided;
As when two friends having, in grief,
confided,
Each one forgets his sorrow in the
other's.

Now to and fro the thistle's plumes are
driven;
And with the rush of rain the hush
is riven—
Like a loud answer to a look replying.

One hears the wild rain whirling, and
the thistle,
Wind-whipt and torn, thin in the tempest
whistle,
And grief unutterable fills the breast
with sighing. — Scribner's Maga-
zine.

Among the Books

The New China.

["The New China," by Henri Borel, T. Fisher Unwin Pub. Co., London, Eng.]

A few years ago, in conversation with the writer of this review, Bishop White, of Honan, expressed the strongest admiration for the Chinese as a race, and both regret and indignation that the people of Western lands have continued so long to look upon the East with indifference if not contempt.

"You people seldom meet the best class of Chinese," he said, "but you must admit that even the class which you do see compares favorably with the similar grade among Western races."

—And it is so. The Chinese laundrymen, etc., who are commonly seen in our streets, are almost invariably industrious, quiet, law-abiding. True, one hears occasionally of a police raid on a fan-tan "dive," but are there not many "dives" among our own people in which

games just as questionable as fan-tan are played, but which are seldom, if ever, raided?

China slept. After reaching a state of civilization that towered above that of Europe in the same day, at a time when America was inhabited by fierce roving tribes, China slept, for many centuries—serene, proud, contemptuous of "barbaric" lands.

But China is once more awake. Yes, the day came when the drowsy giant turned, opened eyes upon the progress of the West, caught a vision, sat up, then rose to his feet and stretched forth eager hands. He might despise the "foreign devils," but he recognized that even they had something which he lacked. He would assimilate that something, yet he would keep his own wisdom. And so the East would be the East still, enriched and broadened by the West.

Perhaps, as Mr. Borel argues, in "The New China," it was the thunder of the Japanese guns that stirred the brooding, yellow people to national consciousness. Perhaps it was the continuous and irritating aggression of the "barbaric" foreigners—French, German, British and Russian. Perhaps progress was in the air and incarnated itself in a few leading spirits. Or perhaps, with the turning of the cycles of history, the time had come for the great Orient to loom once more to the forefront of things. At all events China is awake, and that fact must be recognized by the nations of the world. Not a drowsy, non-progressive horde of people, but a great nation must be considered, a nation so clever and so acute—yes, so mystic, so remote, so incomprehensible as to require the best minds and the most far-seeing diplomacy to deal with it. Kipling struck, perhaps, closer to the mark than anyone else when he sang "For East is East, and West is West; And never the twain shall meet," and yet the attempt must be made. The inscrutable East must be understood. To quote from Mr. Borel again (and he is only one of many who have, of late years, devoted their attention to the Asiatic problem), "Before very long the Eastern question will determine the politics of the world. Peking and Tokio will become, within measurable time, the great centres of international politics."

The Mistake of the West.

It is not speaking too sweepingly to say that the great surprise that meets us of the West as soon as we really begin to study the Orient, is our own cocksureness—smugness, if you will. Ashamed of it as we may well be, we must admit that to the great majority of us the Chinese, for instance, have been "Chincks," their religion a crass idolatry, their nationality a water-logged lumbering craft that could never catch up. We of America and Europe have been THE peoples. We have had everything to give, nothing to receive. And yet,—to our everlasting dishonor we must admit it—we have not scrupled to take. Our merchants and adventurers have gone to China and have exploited the once-trustful Chinese, all unversed in the contemptible sharpness of Western "business methods." Soldiers from half the countries of Europe have marched upon Chinese soil and "annexed" a slice, now here, now there—Kiao-Chau, Wei Ha Wei, Port Arthur, Hongkong, Talienswan, Tsing Tau, and other places whose names linger in the hearts of the Chinese as Alsace-Lorraine in the hearts of the French. The scandalous Opium War of 1840, in which England forced the importation of opium upon China, (she has of late years tried to

retrieve the blunder), the war of France and England upon the Empire in 1856, German aggression, the looting of Peking in 1900—these things are not forgotten. Nor, even in smaller things, have the methods of the West recommended us to China. Even to-day precious works of Chinese art are only protected from vulgar, souvenir-hunting tourists by placards threatening rigorous prosecution—a course forced upon the Chinese when they saw their ancient statuary mutilated, their painted hangings torn to shreds, and their finest marbles marred by the scrawled names of insignificant foreign globe-trotters.

Our missionaries, too, supposedly "men of God," have not always possessed the tact and insight necessary to their high calling. Too often insufficiently educated, although sincere men, they have ruthlessly hurled aside everything precious in Chinese theology, failing to see that even to the sages of China has been granted some degree of revelation;—and the Chinese have listened—and said nothing. Here and there Christian communities have been formed; now and again insurrections against the "foreign devils" have broken out; but on the things closest to his heart the Oriental keeps an impenetrable silence. To the credit of the missionaries, however, be it said that of late years they are proceeding along a more reasonable way. "The best of them," said a noted Toronto clergyman not long ago, "now recognize that the East has something too. They seek to understand and assimilate that something and build upon it. They feel that while they have much to give the East, the East has also much to give the West. They seek but to supply the key-note and blend all in one grand, sweet song."

Mr. Borel's Account.

That while we of the West have much to give the East, the East, in spite of a great deal of superstition and dross, has also much to give us—this is the theme that runs through the whole of Mr. Borel's very interesting book, "The New China." Mr. Borel is, it must be noted, an artist and a mystic, and his book contains a few paragraphs that will be passed over by the severely practical as mere "moonshine;" unquestionably his attitude is to keep his eyes open to the beautiful rather than the ugly, and so he passes over much that is unsalutary in China; yet even the most practical must admit that his philosophy is, on the whole, far-seeing. Leaving that aside, his descriptions of China in transition are invariably fascinating. And he knows China. After spending many years in the southern provinces, he went to the Dutch East Indies as official Chinese interpreter, and while there made a translation of the works of Confucius. After fifteen years he returned again to China and travelled northward to Peking. Astounded at the changes brought about in so short a time, he was inspired to write "The New China," and the book was finished shortly before the famous "revolution" and the establishment of a republic in the great Celestial empire. To-day Mr. Borel might write another, "The Newer China," but this has been the work of other hands. Nevertheless his "impressions" still stand among the most delightful written of that most interesting time in the history of the empire—the time which saw the first throes of the great modern movement.

A Train-de-Luxe.

The first "shock" came to the writer when, in Tientsin, he boarded a train-de-luxe railway coach en route for Peking. Nothing had been omitted,—cushioned seats, electric fans, polished brass, even a saloon with easy-chairs



Colonel Swinton, of the British Army.

The man who first thought of turning peaceful motor tractors into instruments of war, hence practically the inventor of the "tank." International Film Service.

and broad windows. "I sat wondering," he says, "whether I were dreaming, half believing, half doubting if I were not beguiled by sleep." He was on the way to "Peking, the holy, the mysterious," to the great "Forbidden City," in a train that might have been passing through the heart of France, looking out through plate glass windows at a Chinese landscape. Less than ten years before, the journey would have been taken tediously in "four to five days of steamboat misery on the Pei-Ho;" now it was being covered in three hours;—yet through the windows could be seen the familiar old scenes, "full of Chinese quaintness: the clay houses where played plump Chinese babies, already wrapped in their autumn clothes, with here and there the droll writhing dragons over buildings where floated a yellow Chinese flag."—The old scenes and yet not the old scenes, for presently the train speeds past an open field where soldiers are drilling, modern looking soldiers in khaki—but they are Chinese. "I flew past in dumb astonishment," he says, "I who, fifteen years ago, seated on my pony, had seen the mean, sordid gangs and dared to ride into their ranks and break them."

Ancient China despised war and the soldiery. Do these manoeuvres of spruce, khaki-clad youths denote evolution? Or has China been forced into militarism to protect herself? Will all the world one day return to the wisdom of ancient China in this respect, so that war shall be no more? Will China, with her population of over 400,000,000 ever wage a war of aggression?—Or will she become a power beneficent, in the economy of the Universe?

The traveller is somewhat disappointed at the disappearance of old romance, here and there, yet he hopes that Peking itself will not have been too hopelessly modernized. He is filled with excitement! And he gives us the picture which rushes upon him as he approaches the borders of the city:

—"But see! what is looming in the yellowish-grey plain? Walls, walls, grim battlemented walls. We rush through them. How high, how grey with the darkness of centuries! This is as old as Babylon, as Jericho, as Nineveh! These are the mighty walls of an enchanted city!"

Now massive, projecting square bastions appear, and, along the foot of the walls, houses begin to cluster,—the outer suburbs of the Imperial City. This "town" seems to be without limit, the walls seem to have no

end,—then the train shrieks into a station, an every-day station again, with porters, and Europeans standing about, and spruce guards in grey uniforms with red facings. But the porters are Chinese—and the guards, "Imperial Chinese Guards!"

In pidgin-English he bargains with a porter to take him to the "Hotel des Wagons Lits." A plunge through a small gate and a long, narrow subway, and the two are in the outer city of Peking. "A common, vulgar, modern, European street, that's all, and a few moments later the Hotel des Wagons Lits is reached. It is, in every way, an up-to-date Parisian hotel, full of green wicker chairs and European ladies and gentlemen." The room to which Mr. Borel is taken contains an English bed with silk eiderdown "comforter," lace curtains, a wardrobe with a mirror, electric light bulbs, a lavatory with hot and cold water taps, and a lamp with a red silk shade. The dining-room is "just like the dining-room of every hotel except that the waiters are Chinese boys in long, blue garments, who move about noiselessly in their felt slippers; their long, plaited pig-tails hang down their backs."

Again he wonders if he is awake, and experiences a shock of disappointment—but he reflects that he has not yet seen Peking.

And he has not.

(To be continued.)

Hope's Quiet Hour

When God is Silent.

Fear thou not: O Zion, let not thine hands be slack. The LORD thy God is in the midst of thee, a Mighty One who will save: He will rejoice over thee with joy, He will be silent in His love.—Zeph. 3:16, 17 (R. V. margin).

"Day by Day

And year by year He tarrieth; little need The Lord should hasten; whom He loves the most

He seeks not oftenest, nor woos him long,

But by denial quickens his desire, And in forgetting best remembers him, Till that man's heart grows humble, and reaches out

To the least glimmer of the feet of God, Grass on the mountain tops, or the early note

Of wild birds in the hush before the day."

Yesterday I was talking to a woman who has grown swiftly in strength and beauty of soul since the sad day—not many months ago—when she received a message from Ottawa announcing the death "in action" of her only son. Day by day she had prayed with all her heart for that lad's safety; and now she is praying, with undimmed trust, for the safety of other mothers' sons. Those who do not know the Love of God may say despairingly: "What good comes of our prayers?" Of course, if we only believe in prayer when God—like a fond parent—gives us everything we ask, then the first time He gives us what His wisdom sees to be good for us our faith in Him will cease. A child is not so foolish as to disbelieve in the love and wisdom of an earthly father every time a request is refused. It is very bad for any child to have his every wish instantly gratified. If prayer were a magic talisman, instantly delivering from pain, sorrow and the wholesome discipline of hard work, I would quickly put it back into the hand of God and ask Him to decide for me the amount of tribulation necessary for spiritual and physical development. I should be afraid to pray for relief from pain or freedom from sorrow, unless I knew that God could be trusted to give me exactly the training needed for life here and hereafter.

"Think of what use is prayer?" some may say. "Why shouldn't we leave our whole matter in God's hands? He is always ready to debate to infinity."

We need to think so, if we had not been commanded to pray to God

Himself. We might think so, if we had not found out, by experience, the priceless value of prayer. It is not by listening to arguments in favor of prayer that we become really convinced that it is a vital necessity of life—it is only real prayer which can convince anyone. We can only learn the sweetness of Trust by trusting—trusting when we can't see one step of the way ahead, and when God is "silent in His love." If Job could say: "Though He slay me, yet will I trust in Him," we—with Christ to inspire us—must be ready

lessness is an insult to His faithfulness. You would not wrong your dearest earthly friend by doubting his or her faithfulness. Did you ever realize that we wrong God when we are troubled and anxious?

"Fear thou not. . . . the LORD thy God is in the midst of thee, a Mighty One who will save."

The future is open to Him, though hidden from us. Think of the fall wheat, waiting patiently through the dark, cold days of the long winter. It can see no hope ahead. Why has it been buried in the darkness? Of what use was its life and death? So we hastily and foolishly lose heart and hope, when we should be looking forward in sure confidence of the resurrection of the spring-time and the harvest—when we should be resting joyously on the Love of God.

"E'en through days of despair bides the patience of God,
When He hideth hopes in the gloom;
As in darkness and damp through our desolate days
Sleeps the secret of harvests abloom."

Bishop Brent, in his new book, "The Conquest of Trouble"—a timely message of good cheer in these troublous days—suggests that God is really proving His trust in us when He hides His face. "It is," he says, "the parent teaching his child to walk by removing his arm from our clinging hands—yet not removing it too far. . . . Faith does not always call down torrents of consolation, often not so much as a single drop. God is training us in virility and will not caress us for every bruise or scratch. . . . Strength to win flows to us through stern channels barren of verdure and unrelieved by flowers of consolation upon its banks."

But it is strength to live bravely and victoriously that we really want, not just the short pleasantness of relief from present pain. God answers our highest desires—and those are our real prayers. He knows that what we are at our best is the real self; as a mother believes in the fine manhood of her son, even when other people can only see the rough outside crust of rude behaviour and surly looks.

This war has astonished us all by its revelation of much fine gold in men—yes, and in women too—who seemed to be of very indifferent quality. From an English Grammar School comes the following story.

A boy had been expelled from the school for persistent and impudent disobedience. Then war broke out, and soon after the head master of the

school he once disgraced, and beneath it the loving commendation of the head master is written for all to see: "He won the greatest of all victories." He did not refer to the hero's death but rather to the humble appeal for forgiveness. It is still true that he that ruleth his spirit is better than he that taketh a city.

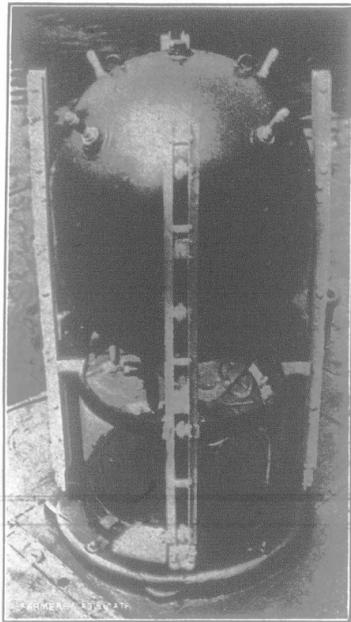
Our Great Head Master knows that only by severe discipline can His careless, unruly scholars rise to the heights of which they are capable. He loves us too well to ruin our after-life by too great laxity and softness in these days of our school-time. If we are ready to thank Him for the pleasant days—the holidays—let us thank Him also for the difficult lessons which prove His watchful care for our welfare. When He refuses to help us with our lessons, insisting that we shall puzzle them out without being told the solution of each problem, it is because He loves us too wisely to carry us like babies when we should walk and carry our own burdens without whining.

Our Lord came to be our Saviour; but His Name was not called JESUS because He should save His people from tribulation or from the harvest of their sowing of "wild oats." The promise of the angel-messenger was: "He shall save His people from their sins." The burden which rolled from Christian's shoulder when he came to the foot of the Cross was the burden of sin itself. That heavy load is joyously lifted from the shoulder of every penitent child of God who comes to Christ for pardon and peace. Being freed from that crushing burden, we can cheerfully take our allotted post in the army of our King. He suffered! Do we want to shirk all painful experiences? He passed through the thick darkness, when it seemed as if the Father's love had forsaken His righteous and trusting soul. It was a darkness that could be felt! But radiant peace waited just a little way ahead. If the darkness is around you now—I am speaking especially to the women whose prayers for their dearest friends seem to have been lost in the silence of God—remember that darkness leads onward into light. The gold in the furnace is a precious treasure in the hand of the Refiner. Your pain is one proof of His love.

"It were not hard to suffer by His hand, If thou couldst see His face; but in the dark!

That is the one last trial—be it so. Christ was forsaken, so must thou be too: How couldst thou suffer but in seeming, else?"

DORA FARNCOMB.

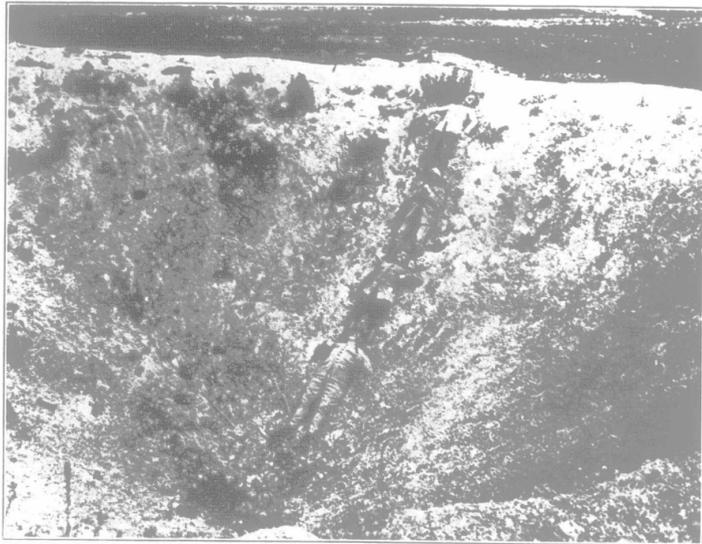


One of the Mines Found Aboard a German "U" Boat Captured by the British.

International Film Service.

to trust Him even if He should allow one dearer than ourselves to be slain.

Silence is often a proof of deepest confidence. Perhaps you have a friend who writes very often to you. If, for a few months, no letter arrives you grow anxious, and think: "Can I have offended my friend? Perhaps she doesn't care for me any more." There is little joy in a friendship that requires to be continually propped up. You have other friends who seldom write—who



French Shells Dig Big Holes.

These four French soldiers made a ladder of themselves to show the depth of a hole made by one of the big French guns. International Film Service.

never write "duty" letters—but of whose love you are certain. The other rendering of our text about being "silent" in love is "He will rest in His love." The friends who do not need to continually express their friendship can rest satisfied in its wearing quality. God expects His friends to trust His love even when He gives no outward sign of hearing their prayers. Faith-

school received a letter to this effect:

"I am ordered to France next week. Before I go I should like to tell you how sorry I am now that I gave you so much trouble. Will you forgive me, and write to me now and then at the Front."

The portrait of that unruly "Old Boy"—who died a hero's death—is now one of the choice treasures of the

The Dollar Chain

A fund maintained by readers of The Farmer's Advocate and Home Magazine for (1) Red Cross supplies. (2) Soldiers' Comforts. (3) Belgian Relief. (5) Prisoners of War.

A splendid contribution of \$50.00 with no signature save "Reader" written on a scrap of patriotic paper showing the grouped flags of the Allies, also some other large donations, has brought the Dollar Chain well over the \$3,000 mark. In behalf of the needy in Europe we thank this generous "unknown," also all others who, in any way, are helping and have helped to add links to the chain. A 50 cent donation may mean as great generosity in some as \$50.00 to others. The "widow's mite" meant much.

Contributions from Oct. 20th to Oct. 27th were as follows:

"A Friend," Campbellford, Ont., \$1.00; David Patterson, Caledonia, Ont., \$10.00; Maggie Patterson, Caledonia, Ont., \$5.00; Sadie Johnson, Melbourne, Ont., \$1.00; K. L. D., Owen Sound, Ont., \$1.00; "Toronto," \$2.00; "Reader," \$50.00, Pupils of J. V. C. C., Jockvale, Ont., per Miss Olive Tierney, \$1.00; No name, \$1.00.

Previously acknowledged. . . . \$2,933.85

Total to Oct. 27th 3,005.85

Kindly address donations to "The Farmer's Advocate and Home Magazine" London, Ont.

Fash

How to

Order by measurement at least ten inches. Also state in order. Price. If the one suit for skirt, the Address Fashion Farmer's Advocate, London, your name. Many forget.

Positively under 15 cents date published cost of same.

When order. Send the

Name.

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paired.

Fashions Dept.

How to Order Patterns.

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

Positively no patterns will be sold under 15 cents each, regardless of date published, owing to advance in cost of same.

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.....



9130 (With Basting Line and Added Seam Allowance) Gown with Capa or Rolled-Over Collar, 34 to 42 bust.



9148 (With Basting Line and Added Seam Allowance) One-Piece Dress for Misses and Small Women, 16 and 18 years.



8845 (With Basting Line and Added Seam Allowance) Girl's Dress, 8 to 14 years.

Current Events

The Provincial Board of Health is taking special precautions to prevent the spread of infantile paralysis in Ontario.

Premier Borden issued an earnest appeal for recruits to serve in every capacity during the war.

Great Britain has now ready to be launched 12 super-Dreadnoughts, the most wonderful war vessels ever set afloat. Four of them are equipped with twelve 18-inch guns.

A referendum on conscription was begun in Australia on October 28th.

At time of going to press heavy rains are retarding operations on the Somme, and little but artillery activity is reported, but earlier in the week the French in the vicinity of Verdun captured Fort Douaumont (which had been in possession of the Germans since the 24th of May) taking over 5,000 prisoners. At present Roumania is the chief center of interest, as the situation there is somewhat critical. Although the Russo-Roumanian forces have succeeded in holding Gen. von Falkenburg back along many points on the Transylvanian front, and have won important victories along the Moldavian frontier and in the southern passes, they have not had as great success in the Dobrudja, where von Mackensen is now advancing along a line extending from the Black Sea and the Danube. Almost a fortnight ago he succeeded in taking Constantza, an important Roumanian port on the Black Sea, and subsequently broke through "Trajan's Wall" (a great embankment built by the Emperor Trajan about the end of the first century of the Christian era), gained control of the railway and of the great bridge over the Danube, which, however, was practically destroyed by the retreating Roumanians. Help is being sent to Roumania by the Allies as rapidly as possible, and during the last few days 128 French and 4 British aeroplanes for scouting purposes have arrived at Bucharest.

The Real One.—A lady employing a colored man asked his name. "Mah name is Poe, ma'am."

"Poe? Perhaps some of your family worked for Edgar Allan Poe."

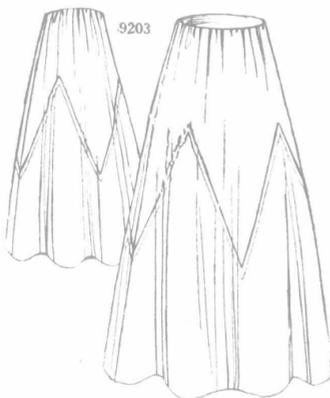
The man's eyes opened with great surprise. "Why," he gasped, pointing a dusky forefinger to himself, "why, Ah am Edgar Allan Poe."—Everybody's Magazine.



8932 (With Basting Line and Added Seam Allowance) House Dress, 34 to 44 bust.



8806 (With Basting Line and Added Seam Allowance) Blouse, 36 to 46 bust.



9203 (With Basting Line and Added Seam Allowance) Two-Piece Skirt, 24 to 32 waist.



9166 (With Basting Line and Added Seam Allowance) Three-Piece Skirt with Yoke, 24 to 32 waist.



9206 (With Basting Line and Added Seam Allowance) Dress with Applied Box-Plaits for Misses and Small Women, 16 and 18 years.

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.]

Public Speaking

With the coming of winter, Literary and Debating Societies spring up everywhere, apparently as spontaneously as mushrooms in a pasture field, and certainly they cannot be too cordially welcomed. Any sort of society in which the young people are encouraged to "find themselves," not only to think but to stand on their feet and say what they think, is well worth while. The efforts may be halting, not much that counts may be said for the first few months, but what of that? A step has been taken in the right direction, a beginning has been made, and who can say what the ultimate end may be?

For the little Literary Society or Debating Club held in the nearest village or in the rural schoolhouse is not a mere device for passing a winter's evening—it is a training-school that trains for the nation's work. Some of these young folk who are now earnestly or humorously discussing the relative advantages of "Reading" and "Observation," or building plans, even in the air, in regard to "How our community might be improved," will one day be, assuredly, the Councillors and Reeves, perhaps the Members of Parliament of our country.—Of what value to them then the habit of standing and talking before a hall full of people. Many and many a man who can think logically, wisely and forcefully, is obliged, every day, to sit dumb, like an unthinking beast, simply because he has had no training in hearing his own voice in public. He is timid. When he tries to speak he is awkward and self-conscious. Words will not come fluently, "let alone" eloquently. Even ideas take flight.

As a result the poor stammerer passes, among strangers, for a nincompoop, and only his friends and neighbors know him for what he is, a sane and clear thinker who should be, were he not handicapped, a greater force than he is in his community and his country. Of course, there are a few men, born orators, and not afflicted with shyness, who when they think a thing can say it,—but we are speaking of another vast multitude.

Assuredly training in oratory cannot begin too young, and it is a hopeful sign that in nearly all of our public schools to-day children are taught to stand up and express themselves, even to give little talks or "speeches" from time to time. For public speaking is not an easy thing, even when given the best chance possible. It demands persistent training. "No great orator has ever lived," said Lord Dufferin in Belfast some time ago, "who did not feel very nervous before rising to his feet. I have often seen the legs of one of the most effective and heart-stirring speakers in the House of Lords, to whom that assembly never failed to listen, shake like an aspen leaf during the delivery of the first few sentences of his speech; and should the young speaker feel his tongue grow twice too long, and curl itself inextricably round one of his canine teeth, he may console himself with the conviction that he possesses one at least of the characteristic qualities of a great speaker." Lord Dufferin himself was always nervous about speaking, it is said, and the thought of having to speak lay heavy on his mind beforehand, as it did upon that of the great orator John Bright, whose friends always knew, from his preoccupied manner, when he was likely to deliver one of his great orations. One of the greatest orators in this country confessed, not long ago, a nervousness so great that it was likely to give his first sentences a precision and stiffness altogether foreign to his natural manner when warmed up to his subject; and another, a Presbyterian clergyman of some note, let drop the little secret that he always finds it necessary first to preach a sermon aloud, in an attic or some such solitary spot, to banish the harpies of nervousness that would otherwise afflict him.

So let our lads talk in public. It is absolutely necessary that some men do the public work of the nation, and there is no power for that like oratory. It sways people. It helps to mould the ideas of countless thousands who can never be brought to read much. It forces issues. It brings about acts.

Often, often one hears it said—in a sort of commendatory way, too—"Oh, it's almost impossible to get good men to take public office; politics is so crooked." But is not this hanging back selfish and unpatriotic from start to finish? If a man has ability for public work does he not owe it to his fellows to do that work? Politics in itself is not crooked. Crooked men may introduce crooked methods, but may not straight men introduce—and maintain—straight methods? Surely the truest patriot—humanitarian—is he who, recognizing his gift, spends it for the multitude and keeps honest and honorable throughout.

Teaching, preaching, lecturing, statesmanship,—all of these need the gift of eloquence, or, at least, of the clear expression of clear thinking. Even ordinary conversation—the very greatest of all "accomplishments"—needs it. Then why not encourage the practice in every way possible?

Just here a thought: In encouraging public speaking it is necessary, from the very beginning, to emphasize the fact that it is the *idea* that counts most; in other words, "to have something to say, then say it." As rugged old Thomas Carlyle has expressed it: "Why tell me that a man is a fine speaker if it is not the truth that he is speaking? If an eloquent speaker is not speaking the truth, is there a more horrid kind of object in creation?" Truth first, then clearness, forcefulness, attractiveness of manner, beauty of language.

By all means let Literary and Debating Societies be encouraged this winter. When the war is over there will be a great work of reconstruction—and construction—to be done. Let the stones for the foundation be put in to-day, in every way possible.

JUNIA.

A Suggestion for Winter.

Dear Junia,—I read with interest your talks on higher education amongst people on the farm. I wonder could you send me a few short plays or parts of plays with four or five characters, illustrating different phases of life amongst refined and educated people—more especially young people.—My idea is to rehearse and act these in our own home. I believe it would furnish us with a pleasant recreation that would be educational and develop confidence in ourselves that would be of great assistance to us. I would esteem it a great favor if you can oblige me in this matter, and thank you in advance for same.

C. R. W.

The above letter, received some time ago and answered privately, is now published at this beginning of the winter season because of the suggestion there may be in it for others. "Red Cross" concerts will, no doubt, be a feature during the long evenings, as money and yet more money, is likely to be needed for work at the front, and little dramas are always popular.

Any large bookstore can secure books of plays, folk dances, etc., on application, but it is absolutely necessary to demand good, refined plays, as otherwise very commonplace vulgar stuff might be sent. Even then discretion in choosing may be required, and it may be necessary to arrange to have books exchanged if not satisfactory. In this case, of course, exchange must be made at once, as it would not be fair to any book firm or publishing house to keep books any length of time.

Left-overs Made Palatable.

In these days, when economy is urged on every hand, especial interest must be attached to the art of using everything, so that nothing at all is wasted. True, it often takes quite a few extras to make left-overs palatable, but so long as the finished dish is nutritious there is no waste involved; the body needs nutriment to keep it well and in working order. Every scrap of left-over food can be, and should be, used up somehow in making these dishes. There is no

excuse for waste. Usually table scraps are the dearest possible food for chickens. The scrapings from the plates are all that should ever be put to such a use.

Here are a few methods for using left-overs in such ways that the family will never know that they are not being treated to brand-new cookery.

Fried Mush.—Corn meal is one of the very best porridge materials; it contains fat and "vitamines," so necessary to the health of the body, and may be eaten with cream and sugar, syrup, or butter and sugar. Occasionally, however, a bit of it may be left over. In this case reheat it and stir it until smooth, then pour it into a small square tin to a depth of about 2 inches. Let it get cold and put it away into the refrigerator or, covered, in any cool place. Use as a supper dish, cut into slices rolled in flour and fried in smoking hot fat. Drain and serve very hot with syrup.

Macaroni and Tomato.—Macaroni is a very nutritious food that should be seen more frequently than it is on country tables. It may be used instead of potatoes, with meat, for dinner, but is nicest as a hot supper dish. Usually macaroni is boiled until tender, then put into a dish with some grated cheese and seasoning, almost covered with rich milk and baked until browned slightly on top. If a cupful of this is left over add to it 1 cup cold canned tomato and heat together. Pour into a baking dish, cover with $\frac{1}{2}$ cup grated cheese and a tablespoonful of buttered crumbs and bake in a quick oven.

Delmonico Potatoes.—Take 5 cold potatoes, 1 tablespoon butter, 1 tablespoon flour, 1 cup milk, $\frac{1}{2}$ teaspoon salt, a sprinkling of pepper, and $\frac{1}{2}$ cup grated cheese. Cut the potatoes into small dice. Make a white sauce from the butter, flour, milk and seasonings, and when done add the potatoes. Turn into a baking-dish, sprinkle the top with the grated cheese and bake until slightly browned.

Potato Cakes.—Two cups riced potatoes, 2 tablespoons cream, 1 egg, pepper and salt to taste. Mix all together and fry by spoonfuls in hot fat in a spider.

Cauliflower and Potato Salad.—Two cups cold potatoes, $\frac{1}{2}$ cup cold cauliflower or cabbage. Cut the potatoes into dice and mince the cauliflower. Mix together lightly and then mix with a good salad dressing. Garnish with parsley and serve with cold meat.

Vegetable Hash.—Chop coarsely any mixture of cooked vegetables that may be on hand—cabbage, potatoes, turnips, parsnips, carrots, etc. Combine these in any proportion liked, and to each pint of the mixture put a tablespoonful of butter melted in a spider. Put in the vegetables and add a very little hot water, gravy or soup stock. Season to taste, and cook slowly. Serve very hot, either with meat for dinner, garnished with pickled beets, or as a hot dish for tea. Bacon fat may be used instead of butter if preferred.

Soup Stock.—Soup stock is very useful if kept on hand in cold weather, all ready to heat at a moment's notice. It may also be canned and kept for summer use if poured boiling hot into thoroughly sterilized sealers and sealed. To make it, use perfectly fresh cracked bones, and all sorts of trimmings of perfectly fresh meat, rejecting the fat. Cover with cold water, let soak a little, then heat very slowly, bring to boiling point and boil until every bit of the "good" is extracted from the bones and meat. Strain, season nicely, skim if necessary reheat and put into sealers. A crock, closely covered, will do, if it can be kept in a very cold place. At any time a few cold, boiled vegetables, rice etc., may be added to this, the whole reheated and made into a delicious soup. Serve as a "starter" for dinner, or as a hot supper dish with bits of buttered toast. By adding celery cut fine, or some canned tomato, instead of the cold, boiled vegetables, a nice change can be secured.

The Scrap Bag.

Bulbs.

Examine the bulbs that you are rooting for winter blooming from time to time to see if the soil has dried out. It should be kept moist (not wet) to encourage root growth. Tulips, daffodils and hyacinths require 6 to 8 weeks in the dark to accomplish rooting properly.

The Children's Room.

Choose pretty paper and curtains for the children's room. Very pretty paper borders showing little Holland girls, rabbits, etc., are now made for the purpose.

Piano Keys.

To keep piano keys and ivory knife handles a good color wipe them twice a week with a cloth dampened with alcohol. If discolored apply whitening and spirits mixed, and polish off with chamois.

Washing White Silk Blouses.

White silk blouses, used so much nowadays for winter wear, may be washed as follows: Dissolve some powdered borax in hot water and let it get cool, then soak the blouse in it for half an hour. Have ready a lather made with white soap, also almost cold, add it to the borax water and wash the blouse. Do not rub it on a board and do not wring it, just press the water out. Rinse well; and, if a clear white is wanted, blue slightly. Do not hang the blouse out on the line, as that will yellow it; put it in a clean cloth, roll up, and after a time iron. The iron must not be too hot.

Mutton Suet as a Remedy.

Try out a bit of mutton fat and keep it on hand to apply to scratches, cracked hands, etc., during the winter. Wash the part well with warm water and castile or any pure soap, then apply the melted suet and bind with a bit of clean muslin. A bottle of peroxide of hydrogen, which is a strong disinfectant, should always be kept on hand to apply to cuts and scratches. Carbolic acid diluted with water is also good.

Warm Night Clothes.

In a cold house it is very necessary to have warm night clothes. Bed blankets of light weight or old blankets that have worn thin, will make very warm pajamas or night robes, also petticoats. They may be dyed red and trimmed with lace crocheted with red wool.

Keeping Feet Dry.

To avoid colds it is very necessary that the feet be kept dry during fall and winter. Rubbers wear out rather quickly, but may often be mended for the time by applying surgeon's adhesive plaster, which comes on a metal roll. The rubber must be perfectly dry when it is stuck on. For waterproofing leather, Scientific American gives the following: There is nothing as good as castor oil for preserving leather. Applied once a month, or once or twice a week in snowy weather, it not only keeps the leather soft, but makes it waterproof. Copal varnish is the best thing to apply to the soles; but the soles should be thoroughly dry, and if they have been worn, they should be roughed on the surface before applying the varnish.

One by One.

Mother had gone to the "Ladies Aid," and would not be back till nearly six. Margery and Harriet were to get supper all by themselves. "I'm going to surprise mother with some popovers," said the smaller of the two little girls.

"Why, Harriet, you don't know how to make them," objected Margery, but Harriet consulted the cook-book, and set to work beating and stirring. It was a long process, and her mother came in just as she had put the pan into the oven.

"What are you girls up to?" she asked, as she saw the cooking utensils on the kitchen table.

"Mother, I've made some popovers," Harriet announced, proudly.

"But what are all those?" asked mother, stooping to look into a row of six cups and bowls which showed they had contained something yellow.

"Why, those are what I beat the eggs in. The book said, 'six eggs, beaten separately.' I don't see why, and it took an awful long time!"

The Beaver Circle

To The Fairies.

Fairies when the winds are cold;
 Fairies, when the leaves are sere;
 Fairies—may I be so bold?
 Whither at this time of year?

I, a human, big and tall—
 Brownies, pixies, sprites, and elves,
 I am curious, that is all.
 Where you take your tiny selves.

Long the flowers have been asleep—
 Daisy, harebell, lily, rose;
 Not a nook for you to creep,
 Far as any human knows.

Not a nook, and it is chill;
 All the butterflies are gone;
 All the little birds are still.
 And the moon looks tired and wan.

Frosted is the gossamer;
 Ghostly stands the stubble grey,
 And the broken chestnut bur
 Litters where you used to play.

Fairies, when the winds are cold;
 Fairies, when the leaves are sere;
 Fairies—May I be so bold?
 Whither at this time of year?
 ERNEST H. A. HOME.

Little Bits of Fun.

"Pa, when you say you're laying for a person it means you have a grudge against him, doesn't it?" Generally, my son. "Well, has the hen a grudge against the farmer, pa?"—Boston Transcript.

She was a little girl, and very polite. It was the first time she had been on a visit alone, and she had been carefully instructed how to behave. "If they ask you to dine with them," father had said, "you must say, 'No, thank you; I have already dined.'" It turned out just as father had anticipated. "Come along, Mildred," said her little friend's father. "You must have a bite with us." "No, thank you," said the little girl, with dignity, "I have already bitten."—Exchange.

A School Fair Prize Essay.

Mr. J. Laughland, District Agricultural Representative at Collingwood, Ont., has sent us the following essay, which won first prize at the Simcoe County Rural School Fair, in an essay competition "open to pupils 10 years of age and under." The bright little tot who wrote it attends school in S. S. No. 16, Oro Township. She wrote a very nice little essay, even though she had no potatoes to show.

Beavers, if you have never had a school fair in your district try talking one up during the winter. If you get your parents and teachers interested you may have one next year. Winter, you know, is the time for making all such plans, and seeds should be ordered about the first of March.

My Potatoes.

WRITTEN BY MAGGIE MARTIN.

I was at the school fair last year. Our school wasn't in it, though I wished it had been.

This year the list of the plots came to the teacher, who read it out to the school. I wanted to take eggs and asters, but when I asked at home what I would take they said potatoes, so I took them.

The order was sent in to Mr. Laughland. Time passed. It was getting later and later. We thought the seeds were never coming. My plot had been ready waiting. I had prepared it early.

At last one day in school a knock was heard. Our seeds had come.

That night I went to work and stirred the ground and cut and laid my potatoes out carefully on papers. I had to be very, very careful indeed, because they had such long sprouts.

I got the line that mother uses in her garden and measured my rows with it, and every twenty inches I put a potato seed.

Then some came up, but at first I wasn't sure whether they were ground

plums or potatoes. I hoed them anyway. Soon they were all up and growing nicely.

One day as I was hoeing them I spied some potato bugs, so I had to keep the bugs and eggs off.

I hoed them until the tops were too big. I picked the bugs every day except on Sundays. When I couldn't hoe them I had to hold the tops while I killed them. They had a few blossoms on them. I thought I was going to have a good patch because the stalks were so big.

My worst enemies were mother's chickens. Those chickens dug my potatoes up. I tried my best to fix the hills but as soon as I had them hilled up and had gone away, in would come those chickens.

Then the hot dry weather came and the leaves died and fell off. At the very worst time the inspector came. He said the bugs took my potatoes, but it wasn't; it was the drought.

I got up Saturday and caught the chickens in the garden. I wanted to know whether I was going to have any to show or not. I dug and only found one or two small potatoes in each hill. I have put them away for seed but I have none to show.

Junior Beavers' Letter Box.

Dear Puck and Beavers.—As I have seen many letters in The Farmer's Advocate which were written by the other Beavers I thought I would like to write too.

I go to school every day I am able to. I was to the school fair this year and got 1st prize on racing and 4th prize on darning a sock. My sister took a cake and potatoes. She also got 2nd prize on cake and potatoes both. We have taken The Farmer's Advocate for as long as I can remember.

Well, I guess I had better say good bye this time, for fear that w. p. basket gets it, but I hope it is away on a holiday trip.

I will close with a riddle.—What lions are allowed on the public parks?
 Ans.—Dandelions.

MARION RUTHERFORD,
(age 9, Sr. II class.)

R. R. No. 2, Castleton, Ont.

The Windrow

A few weeks ago the British steamer Cumberland carried a load of half a million rabbits from Australia, for meat for soldiers at the front. Rabbits are also being raised in Germany to keep up the meat supply.

"Ford" farm, near the village of Dearborn, Mich., consists of about 2,100 acres. It belongs, of course, to Mr. Henry Ford. Mr. Ford is a bird lover, and is interested in protecting not only bird life, but the muskrats, squirrels, and other innocent forms of animal life. On his farm are many nesting boxes and feeding stations to which food for the birds is carried on winter mornings. This food consists mainly of sunflower, hemp and millet seed, buckwheat, cracked corn, small wheat, and occasionally raw oatmeal. Suet is also nailed to the feeding boxes and hung among the trees during cold weather. As a result of this care there are more winter birds on the farm than at any other point in the surrounding country.

Roumania is a country of 53,000 square miles, with a population of less than 8,000,000. Military service is compulsory. The chief industry is agriculture, and, area for area, it produces more cereals than any other country in the world, in spite of the fact that, side by side with the great farm and up-to-date methods is to be found the small farm where the most primitive methods are still used. In normal years the Roumanians can export about 40,000,000 bushels of corn, 50,000,000 of wheat, and 11,000,000 of barley. Large families are the rule in Roumania, and the people live simply and merrily. The peasants are very superstitious.

Words Born Out of Conflicts.

Every war brings into use at least one new word, if it is only a term



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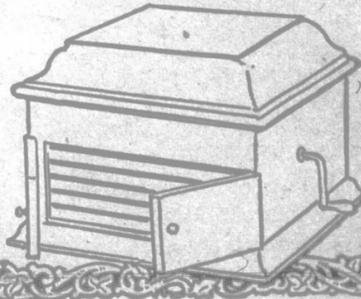


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Compared with the price of butter, however, wheat is not in it at all. Butter commands from \$600 to \$800 a ton. And it costs less to produce a ton of butter than to produce a ton of wheat. Why don't farmers keep double the number of cows?

Cows are veritable **living gold mines**, especially when there is a

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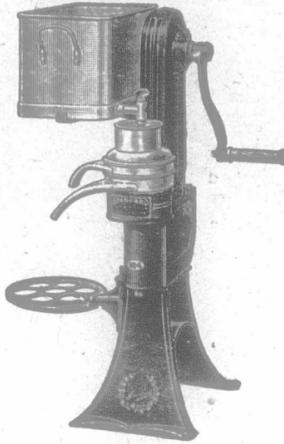
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center piece, enclosed gearing, etc., etc. It is also years ahead of many machines as regards interchangeable capacity. You can change the capacity of the Standard from smaller to larger, or vice versa, by merely changing the bowl and fittings. This means you do not have to go to the expense of buying an entirely new machine if later on you need a larger size to keep pace with the growth of your herd.

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WAGONS—One two-horse dump wagon, 1 two-horse Bain farm wagon, 1 two-horse Bain wagon with stock rack, 1 top buggy, 1 light democrat, 1 heavy democrat, 1 covered cutter, 1 one-horse sled, 1 two-horse sled, 1 Mogul, 8-16 farm tractor, used only this season; 1 blizzard ensilage cutter, and a full line of implements usually found on a well equipped farm; all purchased new in 1914.

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connected with the home life of the enemy nation. Relations with our Spanish American neighbors, peaceful and military, gave us such terms as "gringo" and "locoed." The Boer War produced "khaki," and out of the present conflict the British comic papers have acquired "strafing." In *Answers* (London) is a short resumé of some of the curious new words which war has brought into the language. For instance:

"Kultur" is a word which has found its way into the English language. Everybody seems to know that there is a difference between "culture" and "kultur"—and a difference not merely of spelling.

Britain's sixteenth century war with Spain was responsible for several words being added to the language. "Embargo" and "contraband" are two of them, while to our campaigns in the Low Countries we are indebted for such words as "freebooter," "furlough," "cashier," "sconce," and "domineer."

"Forlorn hope" is a military phrase borrowed from the Dutch "verloren hoop," hoop meaning troop, and although "comrade" is a Spanish word, it came to us through the soldiers who fought in the Low Countries.

The word "khaki" was not used in the way it is to-day until the Boer War. The term "die-hards" came to us from the Battle of Albuera in 1811, when Colonel Inglis, addressing his men, cried: "Die hard, my lads; die hard!"

The term "free-lance," now meaning a literary man who is in no one's employ, is a relic of the Crusaders, when companies of knights roved from place to place, offering their services to any one who would pay for them.—Literary Digest.

The Homely Potato.

How little do we think or know of our most common fruits or vege-

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tables, their origin, cultivation, or from whom or how we learned their food value. Many times, by accident, the most valuable articles have been added to our list of foods, but not so with the potato. When the Spaniards went to Quito, South America, they found the natives cultivating it for food.

The potato is a native of Chili. A monk introduced it into Spain, from which country it has extended slowly over the greater part of Europe.

The potato is remarkably well adapted for a universal vegetable, since it will thrive in almost any place between the Arctic and the Antarctic circles; hence it is more widely cultivated and eaten by all nations and classes than any other vegetable.

Once, only the rich could afford such a luxury, for in the days of Queen Elizabeth as much as five shillings were paid for one pound of potatoes.

From the common name, Irish potato, many suppose that we are indebted to the Emerald Isle for this vegetable, but the reverse is the truth; for the potato Ireland is indebted to America. In 1585 Sir Walter Raleigh, having obtained some of the tubers from Spanish sailors, who brought them as a part of their cargoes to the colonies, had them planted on his estate, near Cork. Its cultivation, however, did not become general, even in Ireland, until the middle of the eighteenth century. It is called Irish potato generally in the United States to distinguish it from the sweet potato, and because it has become the chief food staple of Ireland.

In America the potato was first raised in Virginia and North Carolina. Frederick II so fully believed in the value of the potato that he compelled the Germans to plant it extensively in spite of their protests. The people of the Upper Hartz were more progressive and of their own accord raised the potato; their success and satisfaction derived therefrom are attested by the unique monument which they erected in 1747. This memorial to the potato was found, not many years ago, in the undergrowth of the Upper Hartz. Upon a massive stone base rests a block of granite about eight feet high, having a bronze tablet upon which is inscribed, "Here in the year 1747 the first trials were made with the cultivation of the potato." It seems they intended to proclaim the virtues of the homely potato for centuries to come.

There are more ways of using the potato "than are dreamt of in our philosophy." Many times each day in some disguised form, we meet the potato. When we stamp a letter, the gum that sticks the stamp is made of dextrine from the potato; much of our laundry starch, and also that we use in cooking, comes from the same source. Many of the substances commonly sold as arrowroot, tapioca and other farinaceous compounds are often formed from potato flour or starch. In 1836, in the city of Paris where the bread was considered of a superior quality, 40,000 tons of potatoes were converted into flour. There are said to be 250 ways of palatably cooking potatoes, so we need never tire of this staple vegetable, but should remember that it is chiefly for its bulk that we need and use it as a food, rather than for its nutritive value, since the potato is mainly composed of water, containing 78.9 per cent. water, 18 per cent. starch, proteid 2.1 per cent., mineral matter .9 per cent., fat .1 per cent.

The sweet potato, though analogous to the white potato, is the fleshy root of the plant; it belongs to a different family, and contains a large percentage of sugar. These potatoes cannot be raised in high altitudes nor do they keep so well as the white or Irish potato.

Irish potatoes are tubers of the Nightshade family, and are not roots, properly speaking, but leaf buds, and to these tubers or leaf buds the potato owes its value. The peculiar habit of developing underground slender, leafless shoots, which differ from true roots both in office and character, and which gradually swell at the free end and form the tubers we eat and call potatoes, differs entirely from the manner of development of the sweet potato. The latter, though formed underground, is not of like nature or office, for this tuber is a part of the root proper, the

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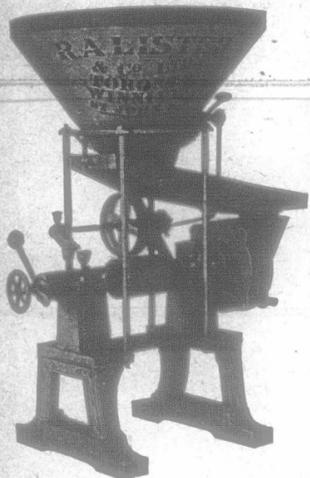
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root simply dilating into a large club-shaped mass, rich in starch and sugar. These tubers, unlike the Irish potato, do not contain eyes or leaf buds - that in due time lengthen into shoots from which new plants may be raised. From the West Indies, Sir Francis Drake sent sweet potatoes to Queen Elizabeth with careful instructions for raising them. He omitted, however, to tell what part was to be eaten or how they should be cooked. The Queen's gardener had a large crop. He tried the new vegetable by cooking the tops, and pronounced them "a most disgusting mess". He then told the Queen they were not fit for food, though he had followed carefully the Admiral's instructions for cultivating them. In a rage he uprooted the entire crop and set fire to the pile. As they burned the roots or tubers were slowly roasting and sent out an odor that breathed an invitation to be eaten. The gardener could not long resist and tasted one warily. The delicious morsel made him grieve deeply for his rash deed and declare the sweet potato was indeed a dish fit to set before the Queen.

There are many varieties of this West Indian dainty, but the yam leads in flavor; the sugar it contains oozes out in a syrup as the potato is roasting. -American Cookery.

Parcels for Prisoners of War.

The Post Office Department has been notified by the British Post Office that many parcels sent from Canada to Prisoners of War in Germany are being received in London in a damaged condition, so that frequently they have to be packed before they can be forwarded to Holland for transmission to Germany. The British Post Office adds that in most cases the damage appears to be due to the fact that the parcels were inadequately packed by the senders.

The public are warned, therefore, that parcels for Prisoners of War, unless they are very strongly packed, will probably arrive in such a condition as to be of little or no use to the recipients.

Ordinary thin cardboard boxes, such as shoe-boxes, and thin wooden boxes should not be used; nor does a single sheet of ordinary brown paper afford sufficient protection. Even where proper materials are used, it is important that the contents should be tightly packed so as not to shake about during transit. The following forms of packing are recommended:

- (1) Strong double cardboard or straw-board boxes. Those made of corrugated cardboard and having lids which completely enclose the sides of the boxes are the most suitable.
- (2) Tin boxes such as are used for packing biscuits.
- (3) Strong wooden boxes.
- (4) Several folds of stout packing paper.

The British authorities advise that parcels for Prisoners of War in Germany must not be wrapped in linen, calico, canvas, or any other textile material.

Parcels posted in Canada, for Prisoners of War in Germany, which have not been adequately packed by the senders will not be forwarded but will be returned to the senders, as the British Post Office has notified the Department that parcels which are inadequately packed must be returned to the senders.

As Written.

Printers are not always to blame for the mistakes that appear in type. If the public could only see the mistakes in the copy that comes to the local editor, they would be quite lenient with him when, as occasionally happens, an error slips through. The reporter for a young people's society in a Missouri town learned this lesson at her own expense.

Miss Allie Trotter, who furnished the local paper with news concerning the young people's meetings, good-naturedly but earnestly took the editor to task for changing her news articles.

When the program for the next Sunday evening meeting came to the editor, he printed it just as it was written. It happened that the reporter herself was to be leader, and the announcement of subject and leader read: "Look up and lift up Allie Trotter."

The Girl Who Cooked.

BY MARY CAROLYN DAVIES.

It is not easy to bake a cake, and stir salad, and drain the potatoes, when your brain is just swirling with plots and settings and climaxes, and when the most fascinating little ideas and fancies keep dancing into your mind and fairly crying out to be written up into stories. Especially if the writing of them means, possibly, college in the fall; and not writing them means, certainly, no college.

And besides, Nan hated cooking, anyway. At least, she had hated it before. It was Nan's proud boast that she never in her life did anything she didn't want to. Her method, you see, was that as soon as she found she had to do anything, she immediately set about wanting to.

It wasn't easy for Nan to be spending her summer over the cook-stove and the ironing board. That summer—why the very thought of it had borne her triumphantly through the roughness of her year as backwoods "school-marm." "Never mind," she would say gaily, as she tossed her head to keep back the tears, "Just wait till summer. Then, I'll be doing my own, own work. Oh, the stories that I can write—next summer."

Three of "the girls" from their nearby schools, had ridden over to say goodbye, as Nan left, radiant, the day school closed.

"Be sure to tell us all about your writing, Nan," they called out.

"Don't forget to let us know every check you get."

"Good luck, Nan. College next fall, were the last words she heard as the train pulled out.

College next fall? Yes, if hard work could bring it. With the study she meant to put in at the library, and the stories she had planned to do, she knew she could "make" college. It would mean giving up everything; no vacation fun for her, but a steady grind at her writing. But for college, Nan could sacrifice anything.

But when she got home, her plans went very badly "a-gley," indeed. No sooner had she flown into the house, dashed wildly at her mother, and her brothers and sisters of varying ages and freckle-faced dirtiness, in the midst of the kisses and fun, and home-again gladness of it all, then they began telling her how needed she was.

It was good, good to be one of the home band again—not to be "the school-marm," and a pattern for the community any more, but to be just Nan, to find her old place waiting for her just the same.

She was longing for a chance to tell her mother all her summer plans,—how she would have her regular hours for work, writing out under the cherry trees in the little nook where she used to study her Virgil,—how she would read, and study up on short-story structure and methods, and all the hundred and one plans she was so eager to begin. In her enthusiasm, she could scarcely follow the conversation.

Conversation at the Little Brown House was of a three-ring circus variety invented by Nan and the others, destined to get the most said in the least time. Everyone talked at once, and you listened to whichever interested you most. Everybody cheerfully interrupted everyone, and a family talk was the jolliest, happiest-hearted affair imaginable.

"Nan," her mother was saying, "I'm so glad you're back, and can take hold of things. I've let the housecleaning go, and I'm behind in the sewing, and—"

"O Nan," Ted broke in, "I want you to coach me in Algebra this summer. You know I flunked."

"And you can make my summer dresses for me, Nan," broke in "Lollipop," "and teach me to embroider."

"We've just been waiting for you to get here, Nan," her mother repeated, relief in her tone. "I had to keep up, some way, till you came."

No one waited for Nan to make any reply, and no one noticed the white look of dismay in her face. It was gone on the instant, and Nan was laughing over Ted's telling of one of the twins' pranks.

In some wireless fashion the news had got round the neighborhood that Nan was home. For anyone to say

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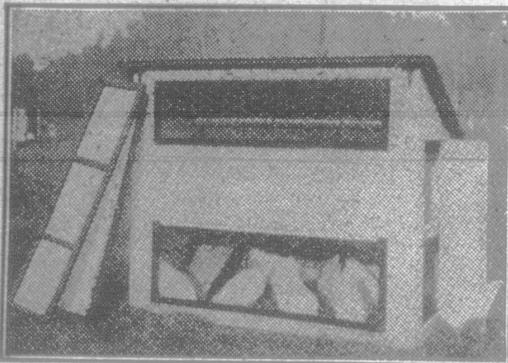
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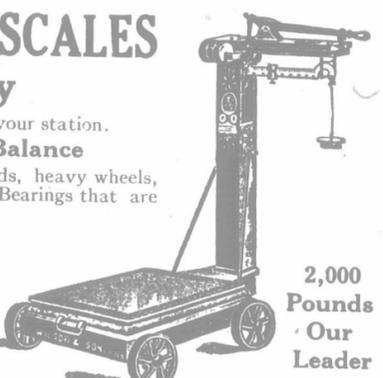
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"Nan," was as much as saying, "Fire Fire." Everyone dropped whatever was to be done, and made a grand rush for the Little Brown House.

Nan welcomed them all, from fat, homely Mother Bagley, to the Trumbull babies. The doorbell and the telephone kept up a merry carol, and "Hello Nan" echoed everywhere.

In all the merry chaos of talk and laughter, it seemed to Nan as if everybody said something about how nice it was that she had got home, and could "take hold of things," and give her mother a rest.

"I wish I had a daughter like that. You're a lucky woman, Kate," her mother's chum told her, and Nan, overhearing, flushed.

"But I can help more by working at my own work," she thought passionately; "Anyone can sweep floors and cook."

It was not until the supper dishes were out of the way that Nan could snatch a moment to think out this problem that had come to her.

Then she ran lightly out to her own, little corner of the world—the little nook under the old cherry tree, where she had fought out all her girlish battles.

There, all alone in the sunset, she faced her problem squarely, and had all the bitterness of her own little Gethsemane.

"I can't give it up," she moaned. "It's my own, own work. And it means college. I can't waste my splendid summer just doing other people's corners." She lifted her head to the sunset hills. "A girl must live her own life, and choose her own life-work." Impulsively she threw her arms around the old tree, and laid her face against it.

"O what ought I to do?" she sobbed. But all the while, she knew what she would do.

She had a little motto of her own that had steadied her hand sometimes, and she quoted it, ruefully, through her sobs. "When in doubt, do the hardest thing."

"Well," she straightened her slim figure, and stood out proudly, "here goes."

It wasn't a very poetical surrender to duty, but she meant it. She marched steadily toward the house, stopping at the little spring to splash cold water into her eyes, and luring all the twinkle back.

She remembered how scornfully one of the girls at High used to say, "Anybody can give in, but it takes a hero to give in as if he liked to do it."

She flashed up to the porch, and was immediately taken possession of by every occupant of it. "Wait until the newness wears off," she laughed, "then I won't be so popular."

"Where have you been, daughter?" her mother smiled up at her affectionately.

"Having a little think-fest all by myself, muz," Nan answered, cheerily. "Will you tell me just what you have for breakfast, and how you cook it? You know I don't know a thing about cooking—but I'm going to."

So that was how Nan came to be cooking dinner on this busy Saturday, while the tiny birds, bursting their throats with joy, and the lure of summer, called to her in vain.

She was tired, tired, body and soul. She was always tired nowadays, just as tired in the morning as when she tumbled into bed at night. But no one knew.

She and the alarm clock had a little dispute every morning. The alarm clock always won. She had put her hand to the stove-lifter, and she would not turn back.

This was the tidiest day of all. The kitchen was littered up with everybody, and Nan was trying to thread her way through the laughing, quarreling chaos, to the culmination of dinner.

"Say, Nan," suddenly demanded Kenneth, sitting up straight, and looking over at her, "why don't you ever write any stories any more?"

Nan tossed back her head, and laughed, holding up the dripping doughnut on the fork, and turning her fire-flushed face upon him.

"Stories!" she cried. "Oh—those beans are burning!" When she had rescued the beans, and put in a new panful of sizzling doughnuts, she turned again, and waved her arm tragically over the scene.

"This is why," she announced, dramatically. "It's better to live stories than to write them, Ke-Ke," she quoted blithely.

"Yes," agreed "Ke-Ke," "but, gee! sis, your stories are corkers."

"Thank you, gentle reader," she curtseyed, and, like Thackeray's heroine, went on cutting bread and butter.

Nan had tried, for a while, to serve two masters. She had hoped to write in the corners of the day, but she soon found that her days were largely circular, and that corners were a non-existing quantity.

Also, she discovered that stories and cooking do not mix. If she ran to her notebook to jot down one of those faintly fugitive ideas, everything in sight would burn and boil over and mutiny. And when she would cuddle up in the lap of Fancy all by herself for a moment, it was surprisingly difficult to imagine what the girl did next, or to describe even a sunset. Then, just when her pencil would get in tune with things, and she would feel the glow of a well-turned sentence, "Nan," someone would call, and the little, maddeningly intrusive tasks would begin all over again.

Finally, she gave in to the great god, Work, and locked up her pathetic little writing desk. She shut her eyes, and, standing under the old cherry tree, threw the key just as far as she could. Then she put all her heart into feeding the family, and sewing buttons on them, and dimpling out at the world in general.

And nobody even guessed about the slender little key she had thrown away, and the locked-up place in her heart.

When any of them spoke of her writing, she turned them off gaily, as she had Kenneth, to-day. His reminder had opened the old sore for a moment, but before dinner was over, she was her own cheery self again.

A little later, the twins plunged in with the mail, to where Nan, arms in the steaming dish-water, was singing away.

"There's a letter for you," came their two-fold shout, "Open it quick, Nan!"

Nan's letters were an advent to the whole household, as much to be shared as a box of candy.

Laughing, she wiped her hands on her apron, and, pulling out a hair-pin, ran it under the flap. Out of the envelope dropped a clipping.

"The letter's from Pauline, the school-ma'am in the next district," she announced happily, and, perching on the table, read out the droll, jolly epistle.

In the middle of a sentence she stopped. "M—m," she skipped, and then started reading again, halfway down the next page.

Nobody noticed the omission except her mother. Mothers always notice things.

Nan's mother had confided to her best friend, the day before, "You never know your children are growing up, Nell, till they first stop showing you their letters. Then you suddenly realize that they're not your little boys and girls any longer, but young folks with an individual life of their own. Nan always tossed her letters over to me, as a matter of course, before she read them or after, it made no difference. But now—It's foolish of me to mind, of course." She had laughed at herself, but she did mind, all the same.

Nan had not dared show her mother the girls' letters this summer. They were too dangerously besprinkled with gay little references and questions about Nan's writings and checks—and Nan would not, for worlds, have had her mother know what she was giving up.

That night in her room Nan read again the page she had skipped.

"I suppose you are too busy with stories, and big things to be interested in it," Pauline said, "but I'm enclosing a clipping I noticed in the Homemaker's Magazine. You said you were doing some cooking, didn't you?" Then she went on to ask about Nan's stories and checks.

Nan picked up the clipping. "A Contest! First prize, three hundred dollars," she gasped. "And for a cooking article," she read on farther, "telling the experiences of an amateur, and what she learned. Well, I certainly ought to be able to give a heart-felt experience talk." She laughed at a sudden vision of her soda-less biscuits, surplus-salted rice, and a few other of her strikingly original versions of culinary prowess.

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"And that's something I could scribble at in odd minutes—no, half-minutes," she corrected. "Dare I? Of course, I'd never win any of the prizes, even the least, last, tiny one. But—I've half a mind to try. Shall I?" She remembered the man, who, with a cake in his hand, stood so long before the oven door saying, "Shall I, or shan't I? Is it time, or isn't it? She loves me, she loves me not," that the oven got cold; and she determined to decide at once.

She shook a quarter out of her bank, and balanced it tentatively in her fingers. Nan believed in tossing up. "Of course, I don't always do what the coin says," she explained ingenuously, "but I always find out, when it comes up heads, whether I wanted it tails or not."

She put her head on one side judiciously. "Heads I write it, tails I don't."

The coin flashed in the air, and came down—tails. "Oh, but, I want to," she cried out, sudden disappointment in her tones.

Then, "Two out of three," she dimpled, and tossed again. Heads it was and she gravely accepted the decision.

It wasn't until late the next day that she began the important article. Then it was launched by a paragraph on a piece of wrapping paper, hastily jotted down, in the kitchen. Every day, between courses, she would add a few sentences, and all the fun and blunders went into it, as they occurred.

Nan kept her little secret to herself; if it came to nothing, she didn't want anyone to be disappointed. She wasn't at all sure of finishing. Besides, she shrank in a perfect agony from discussing her writing or hearing anyone speak of it. They had always laughed at Nan for her sensitiveness about her "scribblings." She could not stand to hear a line of hers read aloud, and to reduce her to an agony of embarrassment, one had only to quote a phrase.

Her article was nearly finished now. She did not want to send it without

telling her mother about it. For several days she fenced for openings, she tried to introduce it naturally, but each time cowardice overcame her. At last, she resolved grimly to shut her eyes and fall in, the way she had learned to dive. She marched boldly into her mother's room, feeling the pulse in her throat throbbing so wildly that she could hardly breathe.

"Mother," she began, "I have something I want to tell you."

"Yes, dear," her mother looked up encouragingly, from the rompers she was making.

"It's,"—Nan's courage was oozing— "I—you see—I wanted to tell you before I did it—I wanted you to know first—" Nan stopped, overcome by confusion.

The look of puzzlement on her mother's face suddenly changed. "Why, Nan," she cried, horrified, "Surely it's not—you're not thinking of getting married, are you?"

"Oh, no, muz! No, no," protested Nan in terror. "It's only, don't you see—I've been trying to write a cooking thing, for a prize." And she told her all about the precious contest.

"Well, I am relieved," her mother smiled. "But, Nan, next time you write a story, don't scare me into expecting an elopement, or a confession of crime. May I see it?"

The ordeal over, Nan's story sailed on to a magnificent close. It was cleverly done. And yet, when she rounded out the last sentence, she was not satisfied. There was so much more to tell. She hadn't dreamed of the romantic possibilities in cooking.

"Now, tomorrow," she thought, "I will copy it, and get it all ready to send."

But tomorrow brought a dismaying quantity of extra work, and the next day and the next sped by without a minute free from house cares. It was getting dangerously near the closing day of the contest.

Saturday, they were going to have a picnic, "a regular crackerjack of a picnic," Kenneth characterized it, and it had the usual sandwich-cake-salad-packing prelude the evening before.

As Nan had her tired hand on the electric switch, going to bed that night, her calendar glared steadily and accusingly at her. She saw the date, and gasped.

Tomorrow was the last chance for the contest.

Was it worth the sacrifice, she asked herself. She had no chance of winning a prize anyway. "Aw, don't be a piker," she seemed to hear Kenneth's boyish voice. That decided her.

"I'll stick it out," she said. "I'll cross the tape, now that I've come this far, even if I am the last one in the race."

Next morning she laughed off the protests, and packed off all the others to the picnic, then drew a long breath of relief. Now she could settle down to work.

Laden with her fountain pen, paper, and three sofa cushions, she fared forth right joyously to her own corner under the cherry trees, stood there a moment, arms stretched up in sheer abandonment of joy to the happy sky, then threw herself down on the grass to write. The birds seemed to welcome her back and the still morning was a balm to her cumbered-with-much-cooking soul.

Her pen flew over the shining pages, and when the last line was copied, and the finished article folded down and slipped into the big overcoat of an envelope, with the return envelope pinkly stamped and tucked away, Nan breathed a big, big sigh of relief.

"There, that's done," she whispered, "but I won't feel real, real safe till I've fed it to that hungry green monster across the street," and in another moment she heard the satisfying thud, as it dropped into the mail-box.

"Now, I'm never, never, going to think of it again," she disciplined herself for I'm not going to feel disappointed. I'd better bake up some pies for tomorrow, and get some hominy on to cook."

So, ushered in by Cream of Wheat and griddle cakes, day after day went by. Nan had forgotten her manuscript—in the daytime. For the first week or so; sometimes at night, she couldn't help wondering if—but she always shut her eyes tight and stopped short at that point.

Vacation was nearly over. Nan had

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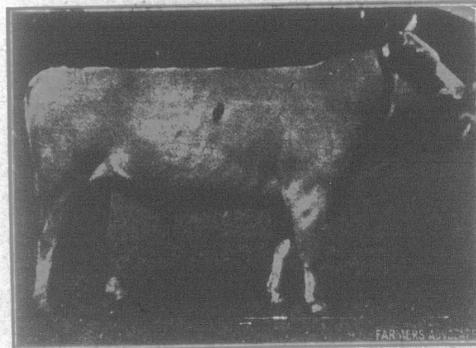
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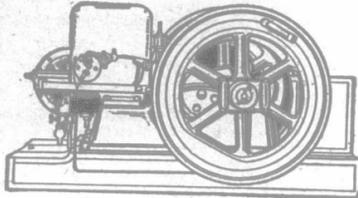
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put off the task as long as she could, but she really must, she knew, set about applying for a school now.

At least, one afternoon, with a sort of Latimer and Ridly expression, as Ted diagnosed it, on her face, she had collected her courage, some paper, envelopes, and several school clerks' addresses, and was grimly preparing to convince them of the peculiar adaptability of her talents for their several schools, when the postman's whistle came like a welcome summons.

Everybody tumbled out of the house, and somebody seized the budget, and bore it in, in triumph.

"Nan, that's partiality," Ted grumbled, "I believe you're Uncle Sam's favorite niece. Whew—here's a business-like envelope."

"The Homemaker," her mother glanced at the corner of the envelope. "Why—Nan—it's too thin to be—Oh, do you think—"

"Oh, no," said Nan hastily, "it's only

some notice—or other, of course. She pulled out a slender blue slip of paper, then stared at it with a dazed expression in her eyes.

"Mother, take it, and see what it says. I can't be seeing straight. Oh, quick!" her voice shook.

Everybody clambered to look over Mother's shoulder.

"Pay to the order of—" began Ted.

"Three hundred dollars," shouted Kenneth.

"Oh, Nan!" Lollipops flew at her.

"You've won, dear," her mother was smiling at her, proudly.

Nan's eyes shone. College, college, the check seemed to chant joyously at her.

She opened her lips to speak. But in that instant came a piercing odor from the kitchen, and the check fluttered unnoticed to the floor.

"The beans are burning," cried Nan, and vanished through the door—American Cookery.

OUR NEW SERIAL STORY

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The Brown Mouse

BY HERBERT QUICK.

CHAPTER II.

REVERSED UNANIMITY.

The great blade of the grading machine, running diagonally across the road and pulling the earth toward its median line, had made several trips, and much persiflage about Jim Irwin's forthcoming appearance before the board had been addressed to Jim and exchanged by others for his benefit.

To Newton Bronson was given the task of leveling and distributing the earth rolled into the road by the grader, a labor, which in the interests of fitting a muzzle on his big mongrel dog, he deserted whenever the machine moved away from him. No dog would have seemed less deserving of a muzzle, for he was a friendly animal, always wagging his tail, pressing his nose into people's palms, licking their clothing and otherwise making a nuisance of himself. That there was some mystery about the muzzle was evident from Newton's pains to make a secret of it. Its wires were curled into a ring directly over the dog's nose, and into this ring Newton had fitted a cork, through which he had thrust a large needle which protruded, an inch-long bayonet, in front of Ponto's nose. As the grader swept back, horses straining, harness creaking and a billow of dark earth rolling before the knife, Ponto, fully equipped with this stinger, raced madly alongside, a friend to every man, but not unlike some people, one whose friendship was of all things to be most dreaded.

at the sudden end of what had promised to be a very friendly acquaintance. I have known instances not entirely dissimilar among human beings. The pointer's master watched its strange flight, and swore. His eye turned to the boy who had caused all this, and he alighted pale with anger.

"I've got time," said he, remembering Newton's impudent question, "to give you what you deserve."

Newton grinned and dodged, but the bank of loose earth was his undoing, and while he stumbled, the chauffeur caught and held him by the collar. And as he held the boy, the operation of flogging him in the presence of the grading gang grew less to his taste. Again Ponto intervened, for as the chauffeur stood holding Newton, the dog, evidently regarding the stranger as his master's friend, thrust his nose into the chauffeur's palm—the needle necessarily preceding the nose. The chauffeur behaved much as his pointer had done, saving and excepting that the pointer did not swear.

It was funny—even the pain involved could not make it otherwise than funny. The grading gang laughed to a man. Newton grinned even while in the fell clutch of circumstance. Ponto tried to smell the chauffeur's trousers, and what had been a laugh became a roar, quite general save for the fact that the chauffeur did not join in it.

Caution and mercy departed from the chauffeur's mood; and he drew back his fist to strike the boy—and found it caught by the hard hand of Jim Irwin.

"You're too angry to punish this boy," said Jim gently,—"even if you had the right to punish him at all!"

"Oh, cut it out," said a fat man in the rear of the car, who had hitherto manifested no interest in anything save Ponto. "Get in, and let's be on our way!"

The chauffeur, however, recognized in a man of mature years and full size, and a creature with no mysterious needle in his nose, a relief from his embarrassment. Unhesitatingly, he released Newton, and blindly, furiously and futilely, he delivered a blow meant for Jim's jaw, but which really miscarried by a foot. In reply, Jim countered with an awkward swinging uppercut, which was superior to the chauffeur's blow in one respect only—it landed fairly on the point of the jaw. The chauffeur staggered and slowly toppled over into the soft earth which had caused so much of the rumpus. Newton Bronson slipped behind a hedge, and took his infernally equipped dog with him. The grader gang formed a ring about the combatants and waited. Colonel Woodruff, driving toward home in his runabout, held up by the traffic blockade, asked what was going on here, and the chauffeur, rising groggily, picked up his goggles, climbed into the car; and the meeting dissolved, leaving Jim Irwin greatly embarrassed by the fact that for the first time in his life he had struck a man in combat.

"Good work Jim," said Cornelius Bonner. "I didn't think 'twas in ye!"

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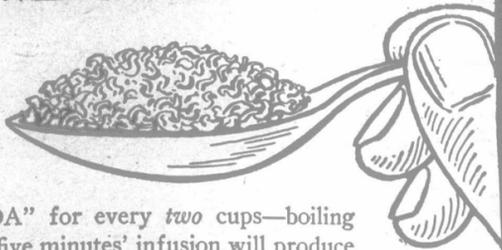
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"It's beastly," said Jim, reddening. "I didn't know, either."

Colonel Woodruff looked at his hired man sharply, gave him some instructions for the next day and drove on. The road gang dispersed for the afternoon. Newton Bronson carefully secreted the magic muzzle, and chuckled at what had been perhaps the most picturesquely successful bit of devilry in his varied record. Jim Irwin put out his team, got his supper and went to the meeting of the school board.

The deadlocked members of the board had been so long at loggerheads that their relations had swayed back to something like amity. Jim had scarcely entered when Con Bonner addressed the chair.

"Mr. Prisdint," said he, "we have wid us t'night, a man who nades no introduction to an audience in this place, Mr. Jim Irwin. He thinks we're bullheaded mules, and that all the schools are bad. At the proper time I shall move that we hire him fr teacher; and pinding that motion, I move that he be given the floor. Ye've all heard of Mr. Irwin's ability as a white hope, and I know he'll be listened to wid respect!"

Much laughter from the board and the spectators, as Jim arose. He looked upon it as ridicule of himself, while Con Bonner regarded it as a tribute to his successful speech.

"Mr. President and Gentlemen of the Board," said Jim, "I'm not going to tell you anything that you don't know about yourselves. You are simply making a farce of the matter of hiring a teacher for this school. It is not as if any of you had a theory that the teaching methods of one of these teachers would be any better than or much different from those of the others. You know, and I know, that whichever is finally engaged, or even if your silly deadlock is broken by employing a new candidate, the school will be the same old story. It will be the school it was when I came into it a little ragged boy"—here Jim's voice grew a little husky—"and when I left it, a bigger boy, but still as ragged as ever."

There was a slight sensation in the audience, as if, as Con Bonner said about the knockdown, they hadn't thought Jim Irwin could do it.

"Well," said Con, "you've done well to hold your own."

"In all the years I attended this school," Jim went on, "I never did a bit of work in school which was economically useful. It was all dry stuff, copied from the city schools. No other pupil ever did any real work of the sort farmers' boys and girls should do. We copied city schools—and the schools we copied are poor schools. We made bad copies of them, too. If any of you three men were making a fight for what Roosevelt's Country Life Commission called a 'new kind of rural school,' I'd say fight. But you aren't. You're just making individual fights for your favorite teachers."

Jim Irwin made a somewhat lengthy speech after the awkwardness wore off, so long that his audience was nodding and yawning by the time he reached his peroration, in which he adjured Bronson, Bonner and Peterson to study his plan of a new kind of rural school,—in which the work of the school should be correlated with the life of the home and the farm—a school which would be in the highest degree cultural by being conscientiously useful and obviously practical.

Three sharp spats of applause from the useless hands of Newton Bronson gave the final touch of absurdity to a situation which Jim had felt to be ridiculous all through. Had it not been for Jennie Woodruff's "Humph!" stinging him to do something outside the round of duties into which he had fallen, had it not been for the absurd notion that perhaps, after they had heard his speech they would place him in charge of the school, and that he might be able to do something really important in it, he would not have been there. As he sat down, he felt himself a silly clodhopper, filled with the east wind of his own conceit, out of touch with the real world of men. He knew himself a dreamer. The nodding board of directors, the secretary, actually snoring, and the bored audience restored the field-hand to a sense of his proper place.

"We have had the privilege of list'nin'," said Con Bonner, rising, "to a great

speech, Mr. Prisdint. We should be proud to have a borned orator like this in the agricultural pop'lotion of the district. A reg'lar William Jennin's Bryan. I don't understand what he was trying to tell us, but sometimes I've had the same difficulty with the spaches of the Boy Orator of the Platte. Makin' a good spache is one thing, and teaching a good school is another, but in order to bring this matter before the board, I nominate Mr. James E. Irwin, the Boy Orator of the Woodruff District, and the new white hope, fr the job of teacher of this school, and I move that when he shall have received a majority of the votes of this board, the secretary and prisdint be instructed to enter into a contract with him fr the comin' year."

The seconding of motions on a board of three has its objectionable features, since it seems to commit a majority of the body to the motion in advance. The president, therefore, followed usage, when he said—"If there's no objection, it will be so ordered. The chair hears no objection—and it is as ordered. Prepare the ballots for a vote on the election teacher, Mr. Secretary. Each votes his preference for teacher. A majority elects."

For months, the ballots had come out of the box—an empty crayon-box—Herman Paulson, one; Prudence Foster, one; Margaret Gilmartin, one; and every one present expected the same result now. There was no surprise, however, in view of the nomination of Jim Irwin by the blarneying Bonner when the secretary smoothed out the first ballot, and read: "James E. Irwin, one." Clearly this was the Bonner vote; but when the next slip came forth, "James E. Irwin, two," the Board of Directors of the Woodruff Independent District were stunned at the slowly dawning knowledge that they had made an election. Before they had rallied, the secretary drew from the box the third and last ballot, and read, "James E. Irwin, three."

President Bronson choked as he announced the result—choked and stammered, and made very hard weather of it, but he went through with the motion, as we all run in our grooves.

"The ballot having shown the unanimous election of James E. Irwin, I declare him elected."

He dropped into his chair, while the secretary, a very methodical man, drew from his portfolio a contract duly drawn up save for the signatures of the officers of the district and the name and signature of the teacher-elect. This he calmly filled out, and passed over to the president, pointing to the dotted line. Mr. Bronson would have signed his own death-warrant at that moment, not to mention a perfectly legal document, and signed with Peterson and Bonner looking on stonily. The secretary signed and shoved the contract over to Jim Irwin.

"Sign there," he said.

Jim looked it over, saw the other signatures, and felt an impulse to dodge the whole thing. He could not feel that the action of the board was serious. He thought of the platform he had laid down for himself, and was daunted. He thought of the days in the open field, and of the untroubled evenings with his books, and he shrank from the work. Then he thought of Jennie Woodruff's "Humph!"—and he signed!

"Move we adjourn," said Peterson. "No 'bjection, 'tis so ordered!" said Mr. Bronson.

The secretary and Jim went out, while the directors waited.

"What the Billy—" began Bonner, and finished lamely! "What for did you vote for the dub, Ez?"

"I voted for him," replied Bronson, "because he fought for my boy this afternoon. I didn't want it stuck into him too hard. I wanted him to have one vote."

"An' I wanted him' to have van vote, too," said Bonner. I thought meself the only dang fool on the board—an' he made a spache that aimed wan vote—but fr the love of hivin, that dub fr a teacher! What come over you, Haakon—you voted fr him too!"

"Ay wanted him to have wan vote too," said Peterson.

And in this wise, Jim became the teacher in the Woodruff District—all on account of Jennie Woodruff's "Humph!"

To be continued.

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

Miscellaneous.

Cure for Worms in Horses and Swine.

Kindly publish a good remedy for worms in horses and swine.

P. F.

Ans.—See answer to query "Mare Has Worms" in this issue. A mixture of salt, charcoal, and ashes, placed in a box and available to the pigs is a good preventive for worms. As a cure, starve the hogs for 12 hours then feed one part oil of turpentine mixed with 16 parts of sweet milk. The dose for a pig four weeks old is one ounce; for a full-grown hog, six to eight ounces of the mixture. Repeat the dose in a week and again if necessary.

Mare Has Worms.

Would you kindly publish a remedy for worms in a horse. I have a mare weighing about 1,400 lbs., and she has worms. She passed one on October 22, 11½ inches long. What would be a good thing to give her to remove them?

SUBSCRIBER.

Ans.—Take 1½ ounces each, sulphate of iron, and sulphate of copper, and one ounce calomel; mix and make into 12 powders. Give a powder night and morning in damp feed. If it is not eaten in this way, mix with a little water and drench. Starve for ten hours after the last powder, and then, if the mare is not in foal, administer a purgative of 8 drams aloes and 2 drams ginger. Feed bran only for 24 hours after giving the physic.

Bloody Milk.

I have a cow that gives bloody milk, she is just a heifer, and the first season she has been milked. We have noticed more or less blood in the separator bowl all summer but more especially of late.

T. H.

Ans.—The trouble is caused by rupture of some of the small blood vessels of the udder, due generally to congenital weakness of the vessels of the udder. While the flow of blood can usually be checked, recurrence of the trouble cannot be prevented. In addition to the hereditary tendency, contributory causes are, abuse, chasing by dogs, hurrying, or accident of any kind to the udder. Bathe the affected quarters long and often with cold water, and give one ounce tincture of iron in a pint of cold water as a drench three times a day until blood ceases to flow. If she becomes constipated give a pint of raw linseed oil. If the above treatment fails to effect a cure it is advisable to dispose of her to the butcher as it is doubtful if the milk would be free from blood after the next lactation.

A Verbal Lease.

In 1909 A entered into a verbal agreement with B. B was to have the use of one acre of A's farm, upon which to build a slaughter-house, the timbers of which were to be supplied by A. At the end of nine years the building and lot were to revert to A. A's pigs were also to have the run of the lot. B sold out his butcher business and rights to C about four years ago. C had the building and lot assessed in his name without notifying A. He also put pigs on the lot. C has not paid the taxes on it and it is now up for sale for taxes. At the same time A has paid the taxes on his whole farm. What course of action should A take in order to keep his rights and lot? Ontario.

A SUBSCRIBER.

Ans.—It does not appear from your statement that B, or his assignee, was to pay taxes, and we rather infer that A was to continue to pay same on the whole farm, including the acre in question. We think that A should pay the arrears and so save the property from tax sale. But at same time A ought to have his agreement with B

put in writing (including C as a party thereto) and have it signed by all three and duly witnessed in order to avoid more serious trouble later on.

Veterinary.

Contagious Abortion.

Give treatment for a herd affected with contagious abortion. R. M. H.

Ans.—Under the most careful treatment it requires from 2 to 3 years to rid a herd of this scourge, and then only when no fresh breeding animals are introduced. Some claim that treatment does little good, but that the cattle gradually become immune in that length of time. The administration of medicinal methylene blue is highly lauded by some as a curative, while others claim that the results are negative. The drug is now very expensive. It is given in about ½ oz. doses, twice daily for ten days, then after a lapse of 3 weeks given again for 10 days, and at like intervals during the whole period of gestation. In addition to internal treatment a large quantity of some good antiseptic and germicide is used. The writer prefers a solution of corrosive sublimate (bi-chloride of mercury) about 30 grains to a gallon of water. This should be heated to about 100 degrees Fahr. before using. All aborted foetuses and afterbirths should be burned, and the cow isolated and her womb flushed once daily with about a gallon of the fluid, until all discharge ceases. It is good practice to wash off the tail and hind quarters of all pregnant and aborted cows daily with the same. An aborted cow should not be bred again for at least 9 months. A bull that has been bred to a diseased cow should not be bred again for at least 6 months, and in the meantime his sheath should be flushed out with the solution daily, and when again bred he should be flushed both before and after service. Of course all non-infected cows should be removed to healthy quarters and care be taken to not carry the virus to them on hands, clothing, stable utensils; infected premises etc., and they should be thoroughly disinfected before fresh stock be introduced. V.

Stud and Herd Books.

The twenty-fourth volume of the Clydesdale Stud Book of Canada has been published and is now in circulation. In it will be found stallion numbering 16561 to 17419. Mares number from 34038 to 35689. The index system is complete, members of the Association are listed, and it also contains the minutes of the annual meeting and the awards at all Canadian Exhibitions in 1915. This volume was compiled and edited in the office of the Canadian National Live Stock Records, Ottawa, from which source it may be obtained by addressing the Accountant.

Volume 25 of the American Aberdeen-Angus Herd Book is a beautifully printed and bound edition, containing entries from 196501 to 208500, covering the period from May, 1915, to February, 1916. It is recently from the press, and a copy has been received at this office through the courtesy of the Secretary, Charles Gray, Chicago, Ill. This volume contains many attractive and instructive features, and may be obtained from the Secretary.

A. Gordon Auld, of the firm, A. F. & G. Auld, writes that he recently saw Field Marshal, the Shorthorn bull bred by them and sold into the United States. He says in part: "He is immense, compact, and very smooth, with that absolute finish and robust character which mark the ideal of a Shorthorn. Mr. Hale has refused \$5,000 for him."

Homesickness.

In the following is expressed clearly, although in imperfect English, what every sufferer from homesickness feels. It is a good story for the unsympathetic mistress to keep in mind.

"You ought to be contented, and not fret for your old home," said the mistress, as she looked into the dim eyes of her young Swedish maid. "You are earning good wages, your work is light, every one is kind to you, and you have plenty of friends here."
"Yas'm," said the girl, "but it is not the place where I do be that makes me vera homesick; it is the place where I don't be."

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English Live Stock Notes?

EDITOR "THE FARMER'S ADVOCATE":

Amongst the many schemes in England advocated to encourage breeding of light horses, it is refreshing to come across one which is thoroughly practical, which gives the breeder a fair reward for his enterprise, and which does not impose any vexatious conditions. This is a class at the Warwickshire Hunt Show for mares likely to breed a hunter, the only restriction being that the mare must not have been shown in any of the brood mare classes. The mares have to be ridden in the ring and over a low hurdle. The first prize is £10, and the second £5; and if the entries number ten, a further prize of £3 is given, so that practically a third of the exhibits would receive a prize if ten horses were entered. If, within five years, the owner of the winning mare can produce a certificate to show that she has produced a living foal to a Thoroughbred or registered hunter sire, a bonus of £10 will be given, provided that the mare has not left the United Kingdom. The principle of giving prizes in proportion to the number of entries should be developed in England. Perhaps one prize for three entries may be considered rather excessive. Really, it is not, if the funds of the society will stand the strain. But why should not the Government spend some money on a matter which is of national importance? Let us imitate the example of France which spends large sums of money on the improvement of horse breeding. Perhaps, after the war, the *pari-mutuel* may be found on our race courses, and they will help to provide the money required for horse breeding.

Australian buyers have been securing Romney rams right and left. At the twentieth show and sale of Kent rams at Ashford, J. Egerton Quedest again won champion honors, this being his fourth successive win, having this been champion winner for four of the seven shows since the challenge cups were first offered. The sale topped all previous records. The third-prize yearling ram of Quedest's made top price, 220 guineas to Mr. Crawford (New South Wales). The champion ram from the same flock made 110 guineas, going to Mr. Osborn, another New South Wales man. R. L. Mond's seven, all purchased as lambs last year at Macknade sale, averaged £50, 8s.; top price, 95 guineas, being paid by W. M. Cazalet. Falkland Island buyers took out a lot of rams. The 286 rams offered averaged £23 apiece.

High prices are made for Jerseys just now. The dispersion of J. H. Smith-Barry's famous herd at Stowell Park, Pewsey, saw an average of £117 13s. 5d. received for 43 head—a British record. Mrs. Austin secured the highest-priced animal in the sale, Masquerade, a beautiful three-year-old, first at the R. A. S. E. this year, at 365 guineas; a grand young cow, with excellent udder, and altogether a beautiful type. J. Carson purchased the highest-priced male animal, giving 255 guineas for the five-months-old bull Merry Boy by Malvolio, out of the grand old cow Marionette. Dr. Watney secured the calf Minette at 71 guineas, and the bull Minstrel at 56 guineas.

Dairy Shorthorns, i. e., pedigree stock are making tremendous figures in England. Samuel Sanday, of Puddington Hall, Chester, has for some years been one of the foremost breeders of dairy Shorthorns, and the dispersion of his herd attracted a very big company. The sale was a great one, and easily establishes a fresh record for dairy Shorthorns, beating the previous best—the Tring dispersion sale last year—by about £17 a head. As will be seen, many high prices were made. Mr. Duckworth, Hooton Grange, also in Cheshire, giving 300 guineas for Darlington Cranford 50th, a roan, bred by the late George Taylor, and the dam of the 500 guinea bull Darlington Minor; her calf at foot made 110 guineas, to another Cheshire man, T. A. Rigby, who was an extensive buyer. Amy Robsart, a six-year-old daughter of the noted cow Eaglethorpe Amy 5th, was taken by Mr. Masters, Thornbury, at 230 guineas per bull calf of last July making 105 guineas. Cressida 43rd, a very shapely young cow, with a good udder, and bred by Mr. Ritson in Cumberland, went to Mr. E. Wills, Ramsbury

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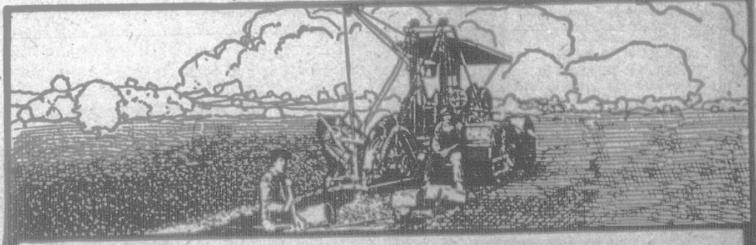
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Get a high-class Angus bull and breed the champion
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Aberdeen-Angus Cattle. Several choice
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A. DINSMORE, Manager, "Grape Grange"
Farm, Clarksburg, Ont.
1 1/4 miles from Thornbury, G.T.R.

Brownlee Shorthorns. Offers a choice
lot of young bulls ranging in
ages up to nine months and sired by the Nonpareil
bull, Royal Saxon. See these before buying
elsewhere. Could also spare a few females.
Douglas Brown, Bright, R.R. 4, Ayr Sta., G.T.R.

Manor, at 300 guineas, and the same
buyer paid 240 guineas for Furbelow Queen,
a red four-year-old by Oxford Record,
out of a Cranford Furbelow cow, Mr.
Tyser getting her bull calf at foot
for 130 guineas. Rigby, opposed by
Duckworth, secured the highest-priced
animal in the sale, paying 580 guineas
for Darlington Day Dream, a rich
roan four-year-old, by Oxford Record,
out of Darlington Cranford 10th. Sir
Gilbert Greenall went to 300 guineas
for Wild Queen 30th, a fresh calved
Wild Eyes heifer, bred at Tring, by
Dreadnought, and 300 guineas were
given by Duckworth for Puddington
Foggathorpe, a wide, good-looking cow
by Oxford Record out of Primrose
Foggathorpe 12th, and another daughter
of Oxford Record, Rose Blush 3rd,
a three-year-old white heifer, just
calved, and possessing one of the best-
shaped udders of anything in the sale, made
250 guineas to Colonel Thorneycroft
Vernon. High figures were well main-
tained when the twenty-eight bulls
came out. Oxford Record, for which
Mr. Sanday paid Messrs. Hobbs &
Sons 400 guineas, although in his
eighth year, made 100 guineas to Mr.
FitzHugh. Loobagh Record, a well-
bred and very handsome roan bull,
bred by Sir Gilbert Greenall, made 230
guineas to Sir Clifford Cory. Pudding-
ton Prince Furbelow, a red yearling
by Barrington Prince out of the Furbelow
cow that made 240 guineas, topped
the sale of the bulls, reaching 550
guineas, paid by Captain FitzHubert
Wright. Mr. Millar gave 210 guineas
for Darlington Prince by Barrington
Prince out of the 580-guinea cow
Darlington Day Dream. The 115
head sold averaged £121 1s. 9d. apiece
and realized £13,925 2s. 0d. The 87
females averaged £121 8s. 9d., and the
28 bulls £120. It was a great day
for Cheshire.

As a contrast let me add that J. L.
Shirley's 35 non-pedigree Shorthorns
sold for £48 10s. each, but 14 of them
(cows) averaged £64 2s. apiece. One
cow, Silverton Pretty Maid, realized
£109.

One of the most successful sales of
Aberdeen-Angus cattle which have ever
taken place in England was held in
Birmingham under the auspices of the
English Aberdeen-Angus Cattle Associa-
tion. Seventy-five, including several
calves, were sold at an average of £41
15s. per head. Best price for bulls
was 60 guineas, given by Lord Sher-
borne for H. J. King's Meteor of
Apthorpe, bred by H. L. C. Brassey,
and nearly two years old. H. G. Fraser
paid 53 guineas to W. A. Sandeman,
Royston, for Question of Claverdon
5th, 18 months old. The cows and
heifers evoked a great amount of com-
petition. The best price of the day
was 100 guineas, this sum being given
for Vitis, a seven-year-old cow from
Stocksfield-on-Tyne, property of Viscount
Allendale. The purchaser was Mrs.
Scott, Dumblaton, Evesham. This lady
is enlarging her herd. She bought
several of the late Lieutenant King's
cattle, giving 50 guineas for Elisma,
six years old; 52 guineas for Kathleen
of Morlich 19th, five years old; and 60
guineas for Era of Morlich, five years.

Holsteins are also making big money,
to wit, an average of £58 13s. 9d.
for 57 head, sold at Wigginton in
Sussex. Cattle prices are booming
all over the United Kingdom. I may
add that I hear that such prices as
£1,833 for Bletchley Condon; £1,745
for Redgorton Censor 2nd; £2,269 for
Ramsden Regent; £1,309 for Prince
Royal; £1,571 for Secret Sign, and
£960 for Boquhan Clipper Monarch,
have recently been made at sales of
British-bred Shorthorns, held in Buenos
Aires.

A Record Wheat Crop.
In view of various claims of world's
record wheat crops for large areas,
the Crowfoot Farming Company, of
Crowfoot, Alberta, submit a sworn
statement of their results for the year
1915, which probably surpass all properly
authenticated claims from other sources.
From 1,356 acres the Crowfoot Farming
Company received an average yield
of 51 bushels, 56 1/2 pounds per acre
of number one spring wheat, by actual
selling weight—400 acres wheat averaged
59 1/2 bushels per acre. These records
were established in the Canadian Pacific
Railway Irrigation Block of Southern
Alberta.



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Clydesdales We have still left some exceptionally good drafty stallions,
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Hillsdale Clydesdales **Richest
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I am now offering a number of in-foal young mares from Imp. sires and dams, bred from Scotch and
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quality and breeding. B. Rothwell, Ottawa, R.R. 1, L.-D. Bell Phone. Farm, 3 miles from city.

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Have several young bulls and heifers for sale. Satisfaction guaranteed.

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Have sold all the Shropshires I can spare this season. Present offering in Shorthorns—ten really choice
young bulls, sired by Broadhooks Golden Fame—50018—Imp. and out of such noted families as
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GLENGOW SHORTHORNS AND COTSWOLDS

Pure Scotch in breeding, we have an exceptionally choice lot of bulls for this season's
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Also ram and ewe lambs of first quality.

WM. SMITH & SON, Columbus, Ont. Myrtle, C.P.R., Brooklin, G.T.R. Oshawa, C.N.R.

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

Stewart M. Graham, Lindsay, Ont.

1854 Maple Lodge Stock Farm 1916
SHORTHORNS AND LEICESTERS
We have now for sale one 2-shear Leicester ram, three shearlings and 14 ram lambs. Also a few young ewes and ewe lambs. All these are of excellent quality and choice breeding, and will be priced moderately. Come and see our flock.
Miss Charlotte Smith, Clandeboye, R. R. 1
Lucan Crossing one mile east of farm

PLASTER HILL SHORTHORNS

MILKING STRAINS—5 young bulls, 5 to 12 months, bred from record cows. Visitors welcome.
F. Martindale & Son, G.T.R. Caledonia, R.R. 3

SHORTHORNS

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

When writing please mention this paper.

Gossip.

Record of Performance Shorthorns.

Elsewhere in this issue, F. Martindale & Sons, Caledonia, Ont., are offering some real dual-purpose bulls; bulls that have individuality and from dams that have excellent official yearly records for milk production. One is a good, straight, eleven-months calf got by an Emma-bred bull and from the noted R. O. P. cow Garnet Queen which qualified as a four-year-old with nearly 7,000 lbs. of milk for the year. There is another nine-months roan calf from Rosa of York, a two-year-old, now running in the Record of Performance which is also a daughter of Alice of York, a 10,000-lb. R. O. P. cow owned by the Alberta Government Demonstration Farms. Another, the same color and a month younger, is a straight-bred dairy bull all through, from the Martindale's famous Annie family. He is not showing in too good fit at present, but will be well worth waiting for. Last but not least, there is a six-months deep-fleshed youngster of the Yorkshire Belle family and got by the noted young sire Burnfoot Chieftain, a son of Dairymaid, whose record of 13,535 lbs. of milk testing 4 per cent. was, until recently, the highest for Canada. A few others of various ages, bred along much the same lines, together with a choice lot in young heifers make up their entire offering for the present. Address all correspondence to F. Martindale & Sons, Plaster Hill Farm, Caledonia, Ont.

Brownlee Shorthorns.

Elsewhere in this issue, Douglas Brown, Brownlee Stock Farm, Ayr, Ont., offers some choicely-bred young Shorthorn bulls. Mr. Brown's herd should not be entirely unknown to Advocate readers as he has at different times offered a few head for sale through these columns, but until recently his surplus has not been large. Most of his older breeding females are got by the two noted sires, Christopher (Imp.) and Nonpareil Victor, a Roan Lady bull got by Nonpareil Duke (Imp.) Both of these sires produced some heavy-milking strains and Mr. Brown was fortunate in laying his foundation by getting, right in the start, some excellent milkers of the breed. His offering of young bulls at present are all descended from these cows and are all sired by the Nonpareil bull Royal Saxon got by Royal Star. These include an even half dozen, several of which are nearly ready for service. Two others by the same sire, one a twelve and the other a 16-months' bull with two heifers of the same breeding, make up Mr. Brown's consignment to the London Sale on Nov. 8th. The heifers will be bred to the present herd sire British Pride, a Douglas-bred bull got by the good breeding sire, Roan Chief (Imp.) If you are in the market for a young bull of choice dairy breeding, and at the same time would like to hold as much as possible, to the beef type you would do well to remember the two that are in the London Sale, or if something younger would suit your needs arrange to see the younger ones Mr. Brown has at home.

Questions and Answers

Veterinary.

Heart Trouble.

When quite young one of my calves was dull and took sleepy spells. He did not play like the other calves. I found him down in the stable the other morning and apparently unable to rise. He frothed from the mouth. After a while I lifted him and he could walk a little so I put him out in the yard and soon found him down again and he would not attempt to rise. We lifted him and held his legs and soon he suddenly started, ran a short distance, then fell over on his side and frothed from mouth. We carried him into the stable, but he soon died.

T. M. C.

Ans.—There was pressure upon the brain, probably caused by a tumor. Nothing could have been done. V.

THE BIGGEST

Shorthorn Sale

Of the season will be held at the FRASER HOUSE STABLES, London, Ontario, on

Wednesday, Nov. 8th, 1916

By the Western Ontario Consignment Sale Company

THE OFFERING WILL CONSIST OF

Eighty Head of Choice Shorthorns

About one-half young females and one-half young bulls. A five-year-old cow is the only female over three years old. Most of the heifers were calves of 1913 and 1914, and nearly all are bred. The bulls are nearly all calves of 1915 and 1916; the greater number being dropped last year and ready for service. Nearly every animal carries the blood of one or more famous families such as Lancasters, Village Girls, Wimples, Mysies, Rosemarys, Butterflies, Mayflowers, Minas, Golden Drops, Augustas, etc. Young stock by such noted sires as Blarneystone, Clansman, Newton Friar, Buckingham Bridegroom, Sea Foam, Lucky Star and other first-class breeding bulls will be sold. This is the sale of the season.

Sale will begin at 12.30 sharp.

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HARRY SMITH Secretary of Sale
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Escana Farm Shorthorns

FOR SALE: Two imported bulls, proven valuable sires; 12 bulls, 10 to 20 months old, all by imp. sires and from high-class dams; also for sale 20 heifers and young cows, several with calves at foot, all of very choicest breeding and especially suitable for foundation purposes. Mail orders a specialty. Satisfaction guaranteed.
MITCHELL BROS., BURLINGTON P.O., ONT.
Jos. McCrudden, Manager. Farm 1/4 mile from Burlington Jct.

Dual-Purpose Shorthorns

One young bull, 18 months old, dam qualified in R.O.P., sired by College Duke; also number of females. Address:

WELWOOD FARM, Farmer's Advocate, London, Ont.

Robert Miller Still Pays the Freight—And he is offering in Shorthorns some of the best young bulls and heifers that can be produced. Young bulls fit for service, some younger still; heifers ready to breed and younger, and some in calf. They are of the best Scotch families and some of them from great milking families. They are in good condition and made right, just what you want to make a proper foundation for a good herd, and suitable to improve any herd in the land. They will be priced so that you can afford to buy, if you will tell me what you want. Our business has been established 70 years, and still it grows. There is a reason.
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SALEM SHORTHORN HERD

Eight roan and red heifers about twelve months, big, well-bred heifers of fine quality, also ten young bulls of our usual high class kind.
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For Sale 2 imported Clydesdale Stallions, one French coach and two Hackneys ranging in price from \$500 to \$1,200, on easy terms. All are show horses. Warranted sound and sure, good workers and quiet to handle.
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Scotch Shorthorns, Yorkshires, and Oxford Downs
Our Shorthorns are of the most noted Scotch families and the Scotch (Imp.) bulls, Joy of Morning (Imp.) - 32070 -, Benachie (Imp.) - 69954 -, and Royal Bruce (Imp.) - 80283 - have been used in succession. Two choice bulls of breeding age and heifers for sale. Also sheep and swine.
Erin Station, C. P. R. L.-D. Phone Geo. D. Fletcher, Erin, Ont., R. R. 1

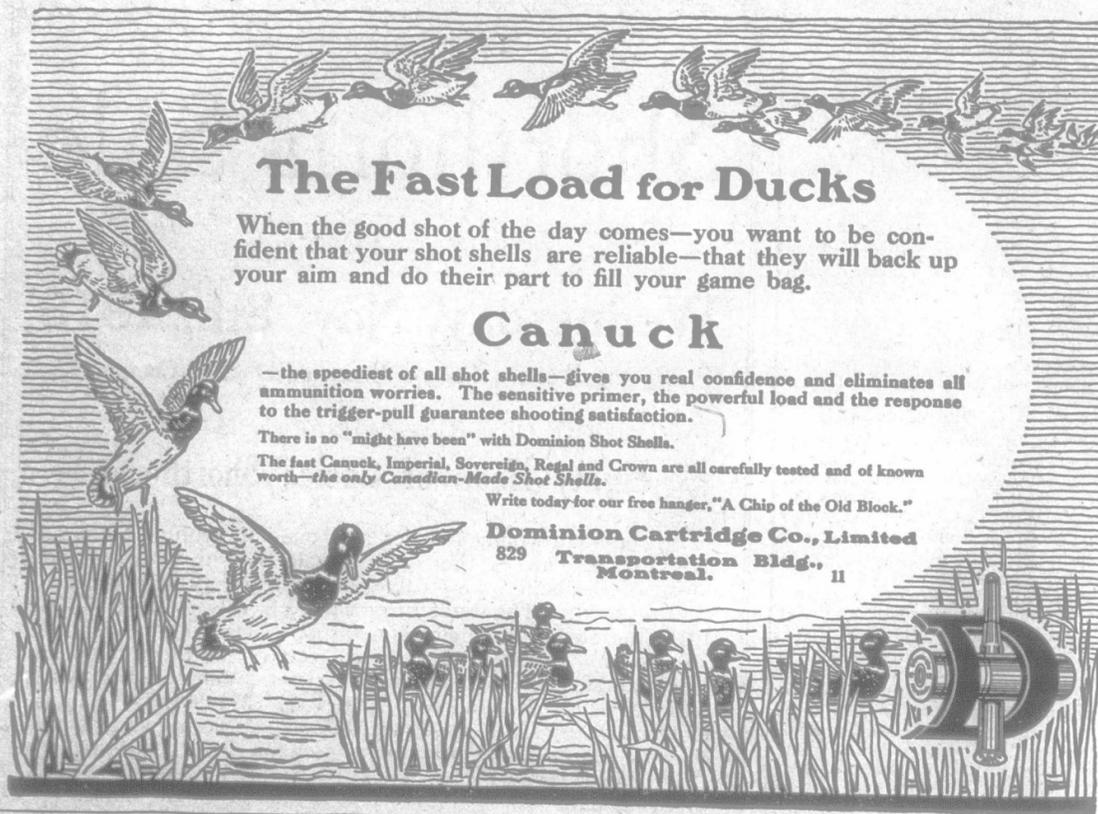
SPRING VALLEY SHORTHORNS

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

OAKLAND SHORTHORNS 51 to select from. 20 breeding cows and as many choice heifers, many of them bred, also a lot of choice young bulls, all of the dual-purpose strain. All sired by choice bulls and registered and offered at prices to live and let live.
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of high-class, fashionably-bred Scotch Shorthorns, in calf to Sittyton Sultan's Dale, a Mina-bred son of Avondale, dam by Whitehall Sultan is of interest, come and examine my offering.
A. J. HOWDEN, COLUMBUS, ONT. Myrtle, C.P.R., Brooklyn, G.T.R.

IMPORTED SHORTHORNS 40 more imported Shorthorns have arrived home from quarantine. We now have 18 heifers in calf and 19 cows with calves at foot, also a few good imported bulls. They are all good individuals and represent the choicest breeding.
We can meet visitors at Burlington Jct. at any time if notified.
J. A. & H. M. PETTIT, FREEMAN ONT.



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King Segis Pontiac Paul 15940

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

Also Berkshire and Yorkshire Swine

Larkin Farms

Queenston, Ontario

35 LB. BULL FROM THE HET LOO HERD

(His dam and sire's dam average 35.55 lbs. of butter in 7 days)

3 months old and a show individual. Sire, Avondale Pontiac Echo, a son of the famous May Echo Sylvia, World's champion milk cow; Canada's first 40 lb. cow. Dam, Roxie Concordia, 30.02 lbs. butter; 676.5 lbs. of milk in 7 days.

We also have a 17 months' bull by King Pontiac Artis, Canada, and out of a 25 lb. sister of the great May Echo. Another, same age by Dutchland Colantha Sir Mona, and from the noted 25 lb. show cow, Cherry Vale Winner. Come and see these, you will like them.

Gordon H. Manhard, Sup. W. L. Shaw, Newmarket, Ont.
Stops 69 Young St., Toronto and York Radial Cars.

HOLSTEIN CATTLE

Our present offering is a bull born February 1916. Dam gave 106 lbs. milk a day, sire's dam 116 lbs. a day. Nicely marked and a show bull. We make a specialty in foundation stock.

D. C. FLATT & SON,
R. R. No. 2, Hamilton, Ont.

DUMFRIES FARM HOLSTEINS

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

HOSPITAL FOR INSANE, Hamilton, Ont.

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

CLOVER BAR HOLSTEINS

We are offering at the present time, a few young bulls, two of which are fit for service, from high-testing dams and sired by Francy 3rd Hartog 2nd, whose two nearest dams averaged 32 lbs. butter in 7 days and 103 lbs. milk per day. Prices reasonable. PETER SMITH, R.R. No. 3, STRATFORD, ONT.

Riverside Holsteins

Herd headed by "King Johanna Pontiac Korndyke" a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 156.92 in 30 days—world's record when made. His ten near relatives have official records that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R. of P. cow of Canada was bred here. Choice young bulls for sale.

J. W. RICHARDSON, R.R. No. 2, Caledonia, Ont.

CANADA'S OLDEST JERSEY HERD

Has for sale several exceptionally choice young bulls of serviceable age, bred on both sides with official and high producing blood. Also yearling heifers and heifer calves.

D. DUNCAN & SON,
TODMORDEN, R.M.D.,
Duncan, Sta., C.N.O.

YOUNG Brampton Jerseys BULLS

For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records save one. Females all ages, also for sale. B. H. BULL & SON, Brampton, Ont

THE WOODVIEW FARM JERSEYS

LONDON, ONTARIO
Jno. Pringle, Prop.

Canada's Most Beautiful Jersey Herd

Present Offering—Some high-class bull calves ready for service, from Record of Performance dams, including grand champion bull at last Western Fair and his full brother; also cows and heifers. State distinctly what is wanted, if writing. We work our show cows and show our work cows

GLADDEN HILL AYRSHIRES

Two yearling bulls; one's dam has a 4-yr.-old record of 8,971 lbs. milk, 3.94% fat. Her dam is Briery of Springbank and is a half sister to Briery 2nd. One won 3rd at Toronto; his dam has a record of 10,000 lbs., testing over 4%. Also bull calves for sale and a few females. Prices reasonable.

Laurie Bros.,
AGINCOURT, ONT.

THE CITY VIEW HERD OF PRODUCING AYRSHIRES

We have three good young bulls fit for service, from Record of Performance cows and sired by bulls from R.O.P. dams; also pure-bred Berkshire pigs ready to wean, for quick sale.

JAMES BEGG & SON
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LOSSES SURELY PREVENTED BY CUTTER'S BLACKLEG PILLS

Low-priced, fresh, reliable; preferred by western stock men, because they protect where other vaccines fail.

Write for booklet and testimonials.
10-dose pkg. Blackleg Pills, \$1.00
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Use any injector, but Cutter's simplest and strongest. The superiority of Cutter products is due to over 15 years of specializing in VACCINES AND SERUMS ONLY. INSIST ON CUTTER'S. If unobtainable, order direct.

The Cutter Laboratory, Berkeley, Cal., or Chicago, Ill.

1 YEARLING BULL

Bull calves from 10 months down. Could spare 10 cows or heifers bred to the great bull, KING SEGIS PONTIAC DUPLICATE.

R. M. HOLTBY, Port Perry, Ont.

JERSEY BULLS.

For sale—Knoolwood's Raleigh, sire Fairy Glen's Raleigh (imp.), 22 daughters R.O.P.; dam Eminent Honeymoon (imp.) R.O.P. 596 lbs. butter; reserve champion on Island. Capt. Raleigh ready for service, sire Knoolwood's Raleigh, dam Mabel's Post Snowdrop; first as calf, 1914, first Junior Champion, 1915, 2nd 1916 Toronto. Milked 38 lbs. day, 6 per cent. milk, first calf. Ira Nichols, Burgessville, Ont. R.R. No. 2.

Lakeside Ayrshires

A few young bulls for sale from Record of Performance dams, imported and Canadian-bred, sired by Auchenbrain Sea Foam (imp.) 35758, grand champion at both Quebec and Sherbrooke. Write for catalogue.

GEO. H. MONTGOMERY, Proprietor
Dominion Express Bldg., Montreal, Que.
D. McArthur, Manager, Phillipsburg, Quebec

Glencairn Ayrshires

Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton, Ont. Copetown Sta., G.T.R.

Gossip.

Paper Prices and Forest Fires.

EDITOR "THE FARMER ADVOCATE":

Independent of other causes operating to increase the price of paper to Canadian publishers, the constant destruction of spruce and balsam forests by preventable fires has played a serious role. Without question, there is abundance of woods to meet all demands of paper mills, but abundance and accessibility are frequently two very different things. Transportation distances between the woods and the mills is a factor of first importance, as not a few unsuccessful Canadian and American paper mills have been forced to realize. Every additional mile a paper mill is obliged to travel for logs, the costs of the paper product will reflect an advance.

E. H. Backus, President of the Minnesota and Ontario Paper Co., Fort Frances, Ont., stated recently that the increasing inaccessibility of pulp limits from the mills is making paper dearer. Unlike small saw mills, the permanently located pulp mill cannot pack up its equipment and follow the retreating forest. Forest Engineers are agreed, however, that with care in operating limits and thorough protection against fire, pulpwood forests can be perpetuated indefinitely; accessibility of supplies need be lessened very little.

Up to the present stage in Canada the lack of modern fire protection for which the Governments, as trustees of the timber resources, are chiefly responsible has reduced the near-at-hand bodies of pulp wood far more than the actual cut of logs. The Northern Ontario fires of last summer are an illustration of this fact. In the 1,200 square miles devastated were substantial quantities of paper making materials. In the same fire an Ontario paper company lost 400,000 cords of wood, ready piled in the mill yard. Quebec's 1916 fires also cleared out large quantities of spruce and balsam as well as white pine. The forest fire record in Ontario and Quebec during the past ten years accounts for vastly more forest wealth than has passed into lumber and pulp.

If the pulp areas at the mill door are allowed to disappear in flames, the longer drive or rail haul automatically increases the cost of manufacture. Without doubt, other causes than unheeded fires are at the root of paper price advances in war time, but it remains true that since the first paper factory in Canada began to operate, the fire fiend has been laying his tax on the paper consumer.—The Canadian Forestry Association.

Questions and Answers.

Miscellaneous.

Verandah on Road.

In a police village on a county road the verandah of one of the houses is built all or at least partly over the road allowance.

1. Can the owner be forced to alter his verandah?

2. If so, how should we proceed or to whom should we apply to have it done?

Ontario G. H. H.

Ans.—1. He can be compelled to remove as much of it as encroaches upon the road allowance.

2. It is a matter for the County Council to deal with. Perhaps it if were mentioned to the County Engineer he would attend to it, and more promptly.

Pneumatic Water System.

1. Can you tell me how to get in touch with anyone putting in pneumatic water systems?

2. Is the system too expensive and complicated for ordinary farm and house use?

P. J. G.

Ans.—1 and 2. The pneumatic water system is fully explained in an article on "Water in the Farm Home," which appeared in our issue of June 29. We do not consider the system to be very expensive when its service and convenience are taken into consideration. There are a couple of firms advertising in "The Farmer's Advocate" which make a specialty of installing the pneumatic water system in houses.

Well I make all the and defeat sure that Y loaded by s

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Tower Champion Oxfor of all ages for sal E. Barbour & S

For Sale 30 be \$15 each, includ ewe lambs at mo and Ayrshires, a H.E. Williams, S

LINCOLN few ewes and Shorthorn bulls, C. A. POWELL

Locust I A few young ran quality. C. E. WOOD,

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Well Loaded Shells

make all the difference between victory and defeat in poultry raising. Make sure that YOUR shells are properly loaded by giving your hens

Pratts Poultry Regulator

Tones up the system, prevents disease. Keeps the fowls healthy and makes them lay heavily. Ensures fertile eggs and lively chicks.

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Where are you shipping now? And what are you getting for your cream? We want more individual shippers and more men to gather cream for us.

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Our markets have advanced. We are paying according to quality from 40 to 44c. per lb. fat. Net to Shippers. Cans supplied. A line will bring you particulars. Toronto Creamery Co., Ltd. 9-11 Church Street, Toronto

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Ship your cream to us. We pay all express charges. We supply cans. We remit weekly. We guarantee highest market price. Ontario Creameries, Limited London - Ontario

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

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For Sale 30 Pure Shropshire Ram Lambs, born 1st part of April; from \$10 to \$15 each, including pedigrees. Young ewes and lambs at moderate prices. Also pure Jerseys and Ayrshires, all ages, both sexes. H.E. Williams, Sunnylea Farm, Knowlton, Que.

LINCOLN SHEEP

Shearling rams and ram lambs, also a few ewes and ewe lambs; also some registered Shorthorn bulls, reds and roans. Prices reasonable. G. A. POWELL, R. R. No. 1, Ettrick, Ontario

Locust Lodge Leicesters

A few young rams for sale. Good breeding and quality. G. E. WOOD, Freeman P.O., Ontario

SHROPSHIRE

One 3-shear ram, and ewe lambs. L. G. CLARKE, Alton, Ont.

Questions and Answers. Miscellaneous.

Cider Vinegar.

EDITOR "THE FARMER'S ADVOCATE": Some person wants to know how to make cider vinegar. To freshly made cider add one-third good, clean rain-water, and in one year, or a little over, you will have good vinegar, and I think it will do in your inquirer's case. Try it, say two pails of your vinegar and one rain water and you are not much out.

J. W. REECE.

Loss of Mare.

I had a mare take sick. I sent for a veterinary. He came, and I was to let him know at twelve in the night how she was. She seemed better. I could not get "Central" to answer till six in the morning, and when he got here inflammation had set in. He lived 9 miles away. She died at four same day. Can I hold the company for loss of mare when we are paying for night service, or the man in charge of central. Ontario. S. W. S.

Ans.—No.

Tare.

A, a beef-ring butcher, wrote for quotations to B. B is a supposedly reliable firm in Toronto, dealing in hides etc. A received quotations: green hides so much per lb., part cured so much per lb. etc. A note at head of quotations: 1 lb. tare; a foot note: these prices are all f. o. b. your station. A shipped a number of hides to B. When returns came, some ten days after, they were sixty-eight lbs. short of C.P.R. weight. They stated so many lbs. off for dirt, salt, tails, etc. Of course, there were some short besides what they docked.

1. Does a quotation of so many lbs. tare not include everything? 2. When they quote prices f. o. b. should they not accept C. P. R. weight at our station. 3. Would it be advisable to take legal steps to try and get a fair settlement?

Ontario E. E. G.

Ans.—1. No, it is merely an allowance to the purchaser for the weight of the box or package containing the goods sold and shipped. 2. Not necessarily. 3. We think not.

Creosote in Chimney.

EDITOR "THE FARMER'S ADVOCATE": Replying to the enquiry about a chimney which gathers creosote, this indicates the use of large quantities of wood fuel, probably with a strong draft. It might happen with a generally bad draft, but is most likely caused by closing the stove tightly to check the fire. The air supply being limited, is burned by the hot coals at the bottom, and the fresh fuel on top is distilled, tar and creosote condensing in the chimney.

This is a waste of good fuel, and the remedy is to admit air at the top of the fire-box, which will induce perfect combustion and also act as a check. Large ranges and heaters have a slide damper for this purpose, but if the stove in question is not so provided a few holes can be drilled near the top of the door. If this is not a sufficient check on the fire then some sort of check damper must be used. The disk damper, which fits inside the stovepipe, is safe to use with wood fuel and a good draft. It costs only a few cents and can be fitted by anyone. Other check dampers are of the circle or flap type, which open into the pipe, and check the draft by admitting cold air. Any stove dealer could supply one, fitted into a length of pipe. A sleeve damper is just as good and can be made by a tinsmith. The object is to get the draft to a point where the fire burns quietly, without roaring, even when well supplied with air. Of course, check dampers must be used with discretion, and should be fitted in a convenient place. Burn the wood with enough air and there will be no creosote.

WILLIAM Q. PHILLIPS, Lambton Co., Ont.

THIRTY-THIRD ANNUAL Ontario Provincial WINTER FAIR

Guelph, Ontario, December 1st to 8th, 1916

ALL ENTRIES MUST BE MADE ON OR BEFORE NOVEMBER 15th.

If you do not receive entry form by Nov. 1st, write the Secretary.

W. W. BALLANTYNE, President Stratford, Ont.

R. W. WADE, Secretary Parliament Buildings Toronto, Ont.



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OUR PRICE LIST will be ready about NOV. 1ST. Write for a copy. We pay express or postage charges on all shipments. PROMPT RETURNS.

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Largest and oldest importers and breeders of

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in Canada. Look up our show record, it will give you an idea of the kind of Oxfords we have for sale.

PETER ARKELL & SONS, Proprietors, Teeswater, Ont. Customers, beware of imitations of this advertisement.

THE OLD ORIGINAL SUMMER HILL FARM WHERE YOU'LL ALWAYS FIND A

FIRST-CLASS OXFORD

I have eighty head of very fine yearling ewes for sale, also a number of yearling rams for show purposes or flock headers, fifty head of ram lambs and fifty head of ewe lambs, all bred in the purple. All recorded and first-class individuals. No grades handled except by order.

Peter Arkell & Co., Prop. Mildmay, G.T.R. Stn. Box 454, Teeswater, C.P.R. Stn. VISITORS WELCOME

Oxford and Hampshire Down Sheep

Farnham Farm The oldest established flock in America

Having quit the show ring we hold nothing back. Our present offering is a number of superior yearling and two-shear rams for flock headers, a carload of yearling range rams, a hundred first-class yearling ewes; also a fine lot of ram and ewe lambs of 1916.

ALL REGISTERED HENRY ARKELL & SON, ROUTE 2, GUELPH, ONTARIO

BLAIRGOWRIE SHROPSHIRE AND SHORTHORNS

PRESENT OFFERING: 100 Imported Shearling Ewes 75 Canadian-bred Shearling Rams 25 Imported Shearling Rams 20 Cows and Heifers in Calf 75 Canadian-bred Shearling Ewes 5 Bulls of serviceable age

JOHN MILLER, Ashburn, Ont. Myrtle, Sta., C.P.R. & G.T.R.

MAPLE SHADE SHROPSHIRE

A number of splendid ram lambs, fit for service this fall. Sired by one of the best imported rams that we ever owned, and from imported dams. Prices and description on application. W. A. DRYDEN, Maple Shade Farm, Brooklin, Ont. Brooklin, G.T.R., C.N.R., Myrtle C.P.R.



Cotton-Seed Meal

GOOD-LUCK BRAND
Calf Meal, Oil Cake Meal,
Flax Seed, Distillers' Dried Grains,
Gluten Meal, Brewers' Dried Grains,
Bran, Shorts, Poultry Feeds.
Write for Prices.
Crampsey & Kelly
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YOUNG TAMWORTH Sows & Boars

FOR SALE
Herolds Farms, Beamsville, Ont.

Berkshire Pigs Registered stock, choicely bred, young boars and sows in pig, all ages. Can supply pairs not akin.
CREDIT GRANGE FARM, J. B. Pearson, Mgr.
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Morrison Tamworths and Shorthorns Bred from the prizewinning herds of England. Tamworths, both sexes, 140 to choose from. Shorthorns, 5 bulls from 5 to 10 months old, reds and roans, dandies. Females of the best milking strains. **Chas. Currie, Morrison, Ont.**

DUROC JERSEY SWINE
A few choice sows bred, both sexes, all ages, bred from imported stock. Heading herd; Farough's King #2012, Brookwater, B.A.B.'s King 5042 from U.S. Importer and breeder. **CHARLES FAROUGH, Maldstone, R. R. No. 1, Ont.**

YORKSHIRES and OXFORDS
Choice young pigs, both sexes, correct bacon type. A few good ram lambs. All registered. We guarantee satisfaction.
B. ARMSTRONG & SON, Codrington, Ont.

Meadow Brook Yorkshires. Sows bred others ready to breed; 20 sows, 3 to 4 months old, and a few choice young boars. All bred from prizewinning stock. Also one Shorthorn bull, 18 months old.
G. W. MINERS, R. R. 3, EXETER, ONT.

Champion Berkshires—When buying, buy the best; our present offering are sons and daughters of the two great champions, Lucky Lad and Baron Compton and out of winners, including champions. Both sexes.
W. W. Brownridge, Georgetown, Ont. R.R. 3.

Swine For Sale—An offering choice stock in Poland-China and Chester White swine of either sex; most any age. First-prize Poland-China herd, London and Toronto, 1915. Prices easy.
GEO. G. GOULD, R.R. 4, Essex, Ont.

TAMWORTHS
Young sows bred for Nov. and Dec. farrow, and a nice lot of boars ready for service. Write
John W. Todd, R.R. No. 1, Corinth, Ont.

Yorkshires Sows bred, others ready to breed, and younger boars 2 and 3 months, from carefully selected stock.
Shropshires Ewes, 2 to 4 years, ewe and ram lambs. Write us your wants.
WM. MANNING & SONS, Woodville, Ont.

Cloverdale Berkshires and Shropshires—In Berkshires I can furnish boars or sows, all ages, pairs not akin. All breeding stock imp. or from imp. stock. In Shropshires can furnish rams or ewes, any age, from imp. stock. Prices reasonable.
C. J. LANG, R.R. No. 3, Burketon, Ont.

YORKSHIRES AND SHORTHORNS—We are offering two choice Kilbean Beauty bulls, one from the imp. cow, Scotch Thistle. Also a choice lot of young Yorkshire pigs of both sexes, from a litter of 18, out of a 600-lb. dam. **A. McKinnon, Erin, R.M.D. Hillsburg or Alton Sta. L.-D. Phone.**

Questions and Answers. Miscellaneous.

Closed Seasons for Fur-bearing Animals.

1. What are the seasons for catching the following fur-bearing animals, muskrat, raccoon, skunk, mink, weasel?
2. Can I trap muskrat out of season if same is spoiling tile-drains and pond?

G. H.
Ans.—1. No muskrats shall be hunted or killed or had in possession of any person between the first day of May and the first day of December, except if their destruction is necessary for the preservation of drainage, embankments and dams. No trap, snare, gin, or other contrivance shall be set for the muskrat during the period from May 1 to December 1 without the person thereby incurring liability therefor. The law further states that no muskrats shall be shot during the month of April or speared at any time, nor shall any muskrat house be cut, speared, broken or destroyed at any time. Open season for mink is from the first of November to the first of May. We do not believe there is any closed season for skunk or weasel and no one will hunt raccoons during the summer as the hides would be of no use.

Milk Production.

1. What amount of milk should a two-year-old grade heifer give to be worth keeping?
2. In what proportion, according to age, ought this amount to increase and up to what age?
3. When would the maximum begin to decrease and up to what age will a cow milk?
4. Give amount of milk necessary for registration under R. O. P. for Shorthorns, Holsteins, Jerseys, Ayrshires for 2, 3 and 4 years old?

G. A. S. B.

Ans.—1. The amount depends on local conditions, price of feeds, price of milk, etc. It is estimated that a cow cannot be kept much under \$50 a year. This being the case, a cow would have to give 5,000 pounds of milk in a lactation period in order to pay for her feed, if milk was selling at \$1.00 per hundred. Over that amount would be profit. Although the average yearly production per cow in Canada is considerably below 5,000 pounds of milk, we do not consider that a cow giving less is a paying proposition, provided whole milk is sold. Some cows give rich milk, and, if the value is based on butter-fat content, a cow giving 3,000 pounds of milk may pay her way.

2. The milk yield may increase from 500 to 1,000 pounds per year until the cow is mature. Of course there are many things which might happen to prevent an increase each year or the increase may be much more than this.

3. It is impossible to state. Some cows have made their highest milk records before they were matured; others have made phenomenal records at ten, twelve and fifteen years. If a cow is in good health and receives the proper feed and attention she will continue to milk well as long as she lives. Cows that are eighteen and twenty years old give a large quantity of milk. A cow's period of usefulness is usually shortened by loss of teeth, or some physical ailment.

	Lbs. Milk	Lbs. But'r-fat
Holsteins:		
Two years old.....	7,500	255
Three years old.....	8,500	289
Four years old.....	9,500	323
Mature.....	10,500	357
Ayrshires:		
Two years old.....	5,500	198
Three years old.....	6,500	234
Four years old.....	7,500	270
Mature.....	8,500	306
Jerseys:		
Two years old.....	5,500	218
Three years old.....	6,500	257
Four years old.....	7,500	297
Mature.....	8,500	337
Shorthorns:		
Two years old.....	4,000	140
Three years old.....	4,500	157½
Four years old.....	5,000	175
Mature.....	5,500	192½

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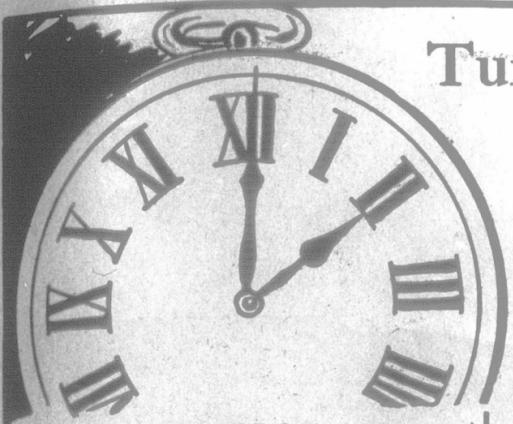
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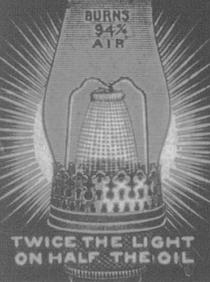
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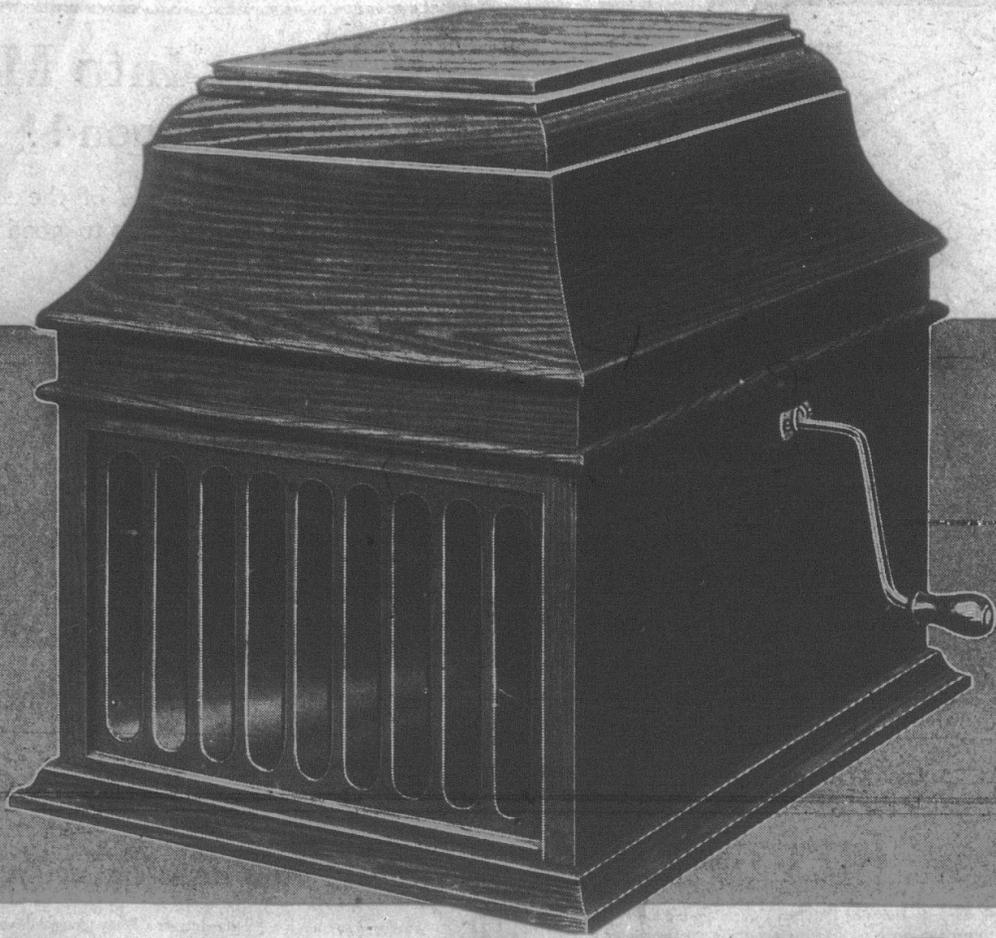
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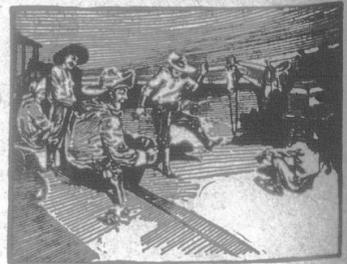
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