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MISSING**

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HOW many times have you seen your fields flooded with moisture after a heavy rain, to the ruination of your crops?

The loss of crops by flooding is a thing unknown on irrigated lands, because where irrigation is practiced drainage is perfect, and all the excess water which falls is promptly carried off where it will do no harm. The irrigation ditches act as drainage ditches in case of overflow.

On the great irrigated tract of the Canadian Pacific Railway in Sunny Southern Alberta is to be found some of the richest land on the American continent, where almost any kind of grain and root crops can be raised.

Alfalfa thrives, and with the natural conditions and constant water supply, which makes Southern Alberta a perfect live stock raising country, the farmer is assured of reaping large and certain profits from the sale of his cattle, hogs and sheep.

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Sugar beet raising is one of the most profitable industries in Southern Alberta, under irrigation. Larger crops of beets can be raised here than in most of the states, and a better market is right at the door of the farmer. Beets bring \$5 per ton. The price is guaranteed, and the demand constant, so that the farmer takes no chances of having a drop on his hands when his crop is harvested.

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Write and let us tell you how to see Alberta at very small cost. Let us tell you how to get a farm that will make you and your children rich.

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Eastern Selling Agents: **Telfer & Osgood,** 265 Coristine Bldg., MONTREAL.  
Write for Railroad Rates and Information.

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Dept. D., SWEDISH-AMERICAN TELEPHONE CO., Chicago, Ill.



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**"Brantford" "Roofing" Co.,**  
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Immigration is going into this district rapidly.

This land is bound to advance in value very fast.

If you want land in the West for investment, or for a home, this is your opportunity.

Very small cash payment necessary.

For further particulars and inspector's field-notes address:

**The William Weld Co., Ltd.,**  
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## "Safe Lock" Shingles can't leak.

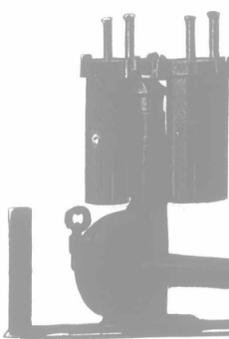
They are the original interlocking metal shingles and the only ones which leave absolutely no nail holes exposed to the weather. They are proof against lightning, fire and water.

When we first brought out the "Safe Lock" Shingle, other makers were selling cleat shingles. Several imitations have appeared, but they have not solved the vital problem of concealing all the nail holes.

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The Metal Shingle & Siding Co., Ltd., Preston, Ont.



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Do you know how much each cow is earning for you? The only way to know this is to buy a

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IT WILL TELL YOU  
ORDER TO-DAY

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The ideal equipment for putting hay on the wagon.

Why?

Because it has so many advantageous features over any other.

For instance, — The apron can be adjusted up or down, so as to place the hay on the load where it is wanted. The wind can't get at it to blow it away, and there is no return carrier to pull hay off the wagon when allowed to pile up. The same man that drives the team can do all the work that needs to be done—the loader, however, does most of it.

Takes up a strip of eight feet wide when loading from the swath, and will handle the heaviest winrows made with a side-delivery rake.

Throat opening is adjustable to increase capacity for working in heavy winrows.

Goes into the holes and onto the bumps, and takes up the hay clean from any ground where you can drive a wagon.

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The best thing for you to do is to order a Dain right away. The next best thing would be to write us quick for full particulars.

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## Drilling Wells Made Profitable

The Crown Driller, with its spudding and other exclusive attachments, works so rapidly, and is so easily operated, that it is a GREAT BIG MONEY MAKER. If interested write for free catalogue.

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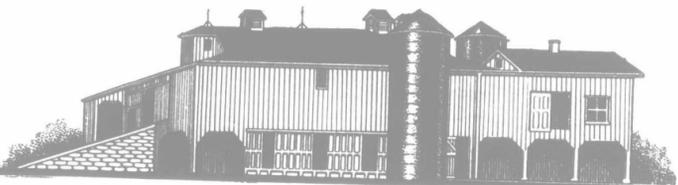
HAVE MANY IMITATORS

But way down in the heart of every informed Dairyman, he knows that

**De Laval Cream Separators are Best.**

AGENCIES EVERYWHERE.

THE DE LAVAL SEPARATOR CO., 173-177 William Street,  
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MR. AMERICAN FARMER: The picture before you is that of the Maplewood Dairy, at Pleasant Hill, Mo., the modern establishment owned by George M. Kellogg. In this big country of ours hundreds of other farm buildings, just as handsome as Maplewood, are covered with

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It makes the only TIME-PROOF roof—the roof of everlasting life and elasticity. Fire brands, heat, cold, moisture, wind or storm do not affect it in the least. A Carey roof will not rot, rust, melt, break nor blow off.

Carey's Roofing is unequalled for NEW buildings and adds life to OLD structures. It is adapted to flat or steep surfaces, is easily laid and may be applied over old shingle or metal roofs without expense of removal.

CAREY'S ROOFING is composed of our superior grade of woolen felt, our highly tempered asphalt cement and strong burlap. Our patent lap covers and protects nail heads and insures a neat, perfectly moisture-proof, lasting union of sheet to sheet and roofing to roof-board.

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Kills Bugs, prevents Blight, Rot and Scab.

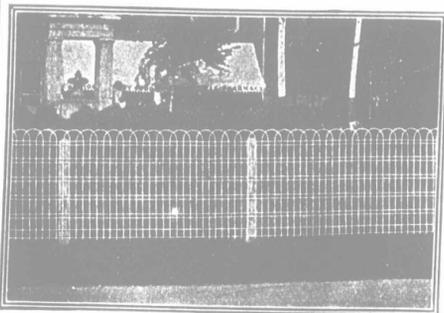
Will improve crop on average 115 bushels per acre. 3 1/2 acres at 40c. a bu. will pay for Spramotor each year.

Adjustable and compensating, and all under control of driver. Pressure from 60 to 150 lbs. at will. All brass. Guaranteed for 1 year in every particular.

Ask for 84-page booklet L.

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Embodies the points you want—economy of fuel and durability. Durability also means economy, because you will not be called upon to repair your furnace in a year or two.

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Heavy cast-iron base and ash pit—large ash pan—heavy triangles at grate bars, insuring a fine clean fire—fire-pot made in two sections, heavily ribbed and so arranged that it will not crack—heating dome made of heavy corrugated cast iron, guaranteed never to burn out.

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Burns hard or soft coal or wood—all the heat is extracted from the fuel and leaves very few cinders—less ashes than any other furnace. Destroys the impurities in the foul air and discharges a sweet, warm air. Heats whole house to an even temperature. This means healthy surroundings and less doctor's bills. Estimates or catalogues sent.

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Limited  
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Write for Particulars



Write for Particulars

With a Modern Canner, costing only \$30, you can preserve your fruit or vegetables quickly and cheaply.

The product will be excelled by none.

It will bring top prices.

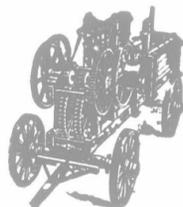
This easily worked machine will make big profits to every fruit or vegetable grower in Canada.

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We guarantee it the best belt press made or no sale. Capacity, 50 tons in 10 hours. Write for full description and agency.

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Improved and unimproved farms. Prices right. Crop payment. Terms to suit. Write for particulars.

**W. E. Foore and J. P. Grigg, Stettler P. O., Alta.**  
Red Willow Land and Investment Co.

# The Farmer's Advocate and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLII.

LONDON, ONTARIO, JUNE 20, 1907.

No. 769.

## EDITORIAL.

### WEAK LINK IN EDUCATIONAL CHAIN.

The swing of the pendulum in popular conceptions of education is plainly in the direction of the utilitarian. It is now not so much culture or discipline of the faculties by drill in languages and mathematics as training by means of a class of subjects co-related directly or indirectly with the prospective life-work of the individual. Especially on the part of young men is there a manifest restiveness in relation to those studies that afore-time played so conspicuous a part in the curricula. The modern overflow of young women into the industrial and commercial world has carried along with it a similar tendency. Hence, the easy advent of the study of nature and the natural sciences, manual training, commercial courses, electrical engineering, agriculture and domestic science.

In all this, two things require guarding against, one the proneness to take short-cuts in education, regardless of the fundamental truth of experience that the best in nature, and in art, likewise, is the product of slower growth; and the other, the substitution of the mere material product for the life itself, as the end in view. While the drift cityward, with attendant perils to humanity, continues, with little abatement, it is reassuring to realize that its dangers are recognized, and, farther, that the twentieth century has dawned with a well-defined appreciation of the blessings of rural life and contact with the comparatively unadulterated benefactions of nature—fresh air, sunlight, and wholesome food. The multiplication of schools and colleges of agriculture, and attention to the farm and its interests in our school systems and literature, are therefore among the most hopeful signs of the times. These agencies should be far more generally taken advantage of by young men, for the double reason that they invest farm work with before undreamed-of interest, and make it more profitable.

We shall have read history to poor purpose did we not perceive the evils of urban congestion, and, further, that an education that gravitates only to the material must fail in its final result. Endowed with a threefold nature, man cannot long rest unsatisfied, as Lecky, the historian, points out; and to abandon the higher for the lower in the pursuit of wealth, pleasure, or even the purely intellectual, will warp the nature and ultimately bring unerring penalties in its train. History, if it teaches anything clearly, discloses that one by one those nations became degenerate and perished, when, at the height of material prosperity, they forgot that only the good endures, and laid the emphasis upon the material and the sensual instead of upon man and character. Babylon, Greece, Egypt and Rome, despite the splendor of material achievement, sank into ruin. Human nature to-day is much the same as twenty centuries ago, and requires the same regenerating and preserving influences. The genius of Christianity has been the saving element in the life of the British nation, and there never was a time in the history of England, Canada and the United States when press, pulpit, school, parliament and home should so recognize and act upon this truth as in these halcyon days of progress. Any educational agency that fails in cognizance of the laws and principles underlying a sound morality, will prove a chain with a breaking link.

"It takes the land to hastening ills a prey,  
While wealth accumulates and men decay."

### ONTARIO'S COUNTY SYSTEM OF ROAD IMPROVEMENT.

The estimated outlay on country roads in the Province of Ontario during the ten years 1896 to 1905, represents a value of \$21,000,000, consisting of a cash expenditure of \$10,432,902, and 10,510,900 days of statute labor. The average exceeds a value of \$2,000,000 a year. This does not include the expenditure on streets of cities, nor a considerable expenditure by counties not operating under the Highway Act. What value has been received for the outlay? The eleventh (or 1907) annual report on Highway Improvement in Ontario, by A. W. Campbell, Deputy Minister of Public Works, better known as Provincial Good Roads Commissioner, discusses the various ways in which this money is being expended, and withal comprises the most pointed and practical compendium of road-improvement information that has yet come to hand from Mr. Campbell's pen. We have read it carefully through, and advise everyone interested in road-improvement to write to the Department of Public Works, Toronto, and procure a copy.

The report, which is illustrated, as usual, with engravings showing improved roads in several counties, quotes and explains the Highway Improvement Act, as revised at the 1907 session of the Provincial Legislature. Under this Act, any county council may pass a by-law designating and assuming certain roads to be improved as a county system. The roads to be thus assumed should be those which will best serve the requirements of each section. One road in each township, or several roads, or part of one road, or parts of several roads, may be selected. The necessary by-law may be passed without being submitted for the approval of township councils, as was formerly necessary, though the county council may, if desired, submit the by-law to a vote of the rate-payers. The by-law may provide for compensating any township in which roads are not assumed, or which may not be benefited proportionately, and the county council may, from time to time, make grants to incorporated villages and towns for the purpose of improving certain roads in such villages and towns. The by-law, and any special grants made under it, must be approved by the Provincial Government, and the county council must maintain the county roads for at least three years after their construction. Subsequently, they may, with the approval of two-thirds of the minor municipalities in the county, expressed by by-law, revert to the local municipalities in which they are situate, to be thereafter maintained as township roads. Subject to compliance with the above and other conditions prescribed in the Act, the Provincial Government agrees to pay one-third of the amount so expended by each county in each particular year on the construction of said system of roads. To aid in the improvement of highways under this Act, the sum of \$1,000,000 is set aside, to be paid out of the Consolidated Revenue Fund of the Province.

Several counties have already taken steps to avail themselves of the Government grant of one-third the cost of construction. During the year 1906 substantial progress was made on the county-road systems of Wentworth, Wellington, Simcoe, Lanark, Hastings and Lincoln, and three other counties passed by-laws under the Act during the year. The first county to begin was Wentworth, which established its system under the Highway Improvement Act in 1902. This county has taken over a length of 140 miles, on which it has expended, to date, \$260,400.74, of which the Government has defrayed \$86,800.24. The total mileage taken over by the nine counties

feet up to 1,964 miles, on which the expenditure, from 1903 to 1906, has been \$887,282.64, of which the Government has paid \$295,751.91. The work carried out by these counties has not been of an expensive order, the average cost being about \$800 per mile. The range is \$500 to \$1,500, the latter figure being for short stretches of an exceptional nature. The principal factors affecting the cost of construction are the kind of road material used, whether gravel or broken stone, and the length of haul. If gravel of good quality can be had, the expense of crushing is saved. A team of horses can travel about 24 miles per day, so that in the length of haul there is room for much variation. Details given of the work and expenditure of each county, make instructive reading.

The remaining pages are devoted to a comprehensive consideration of such practical questions as construction and maintenance of roads and bridges, as well as municipal and executive administration, including a brief discussion of the now-all-but-obsolete statute-labor system. The split-log drag comes in for special commendation as a means of keeping earth roads in good condition, and good drainage is insisted upon as strongly as ever. "Some roads can never be good roads until they are underdrained. Roads tiled without gravel, will be better than if they are gravelled without tile. This applies to practically all roads, except those on pure sand."

### HAYMAKING METHODS: OLD AND NEW.

From the day when a gang of men went into a meadow with scythes and slashed down twisted swaths of grass, to be afterwards turned with forks, then raked by hand and put into coils to remain two or three days, and finally pitched onto a wagon, hauled in, and pitched off and mowed away by hand, down to the present, when a six-foot mowing machine is followed by a horse-drawn tedder, and this in some cases by a hay-loader which picks up and elevates the hay as the team walks across the field, keeping two or three men busy on the load, while unloading is accomplished by means of hay fork or slings, depositing each load pretty nearly where wanted in the mow—from that day to this seems a long call, and yet all these developments are practically a matter of the last half century. Marvellous evidence of the practical inventive genius of the age!

Where such rapid improvement of method is occurring, it is well to keep posted from year to year regarding the practices developed by our leading farmers, and he who peruses the symposium of experience on haymaking presented elsewhere in this issue, will be struck with the number of new short-cuts recommended by the various writers. For instance, several correspondents mention having dispensed with even the side-delivery rake for ordinary work, using the hay-loader to pick up the mower swath, or such semblance of swath as the tedder leaves. Whether this latter wrinkle is advisable or not, we do not pretend to say. We incline to the old-fashioned idea that quality is the prime desideratum in haymaking, to the end that, if we make first-class hay, we can effect substantial saving on next winter's grain bills. Few farmers find it necessary to feed grain with grass, and the nearer we make our hay like grass, the more nutriment will the cow extract from it, and the less supplemental feed will she require. To do our best, we cannot make hay equal to grass, but there is a vast difference in the fragrance and nutritive value of prime clover, cut in full bloom, wilted in swath, tilled, advanced another stage in the windrow, and finally cocked up with the least

# 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.

LONDON (ENGLAND) OFFICE:

W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,  
London, W. C., England.

THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.

It is impartial and independent of all cliques or 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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ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or  
THE WILLIAM WELD COMPANY (LIMITED),  
LONDON, CANADA.

possible loss of leaves and permitted to sweat a day or two in the coil, as contrasted with the dry, chippy, stalky stuff made by curing only in the swath, allowing the top of the swath to become scorched and the leaves ready to drop off at handling, while waiting for the bottom to dry. Of course, it must be admitted that the tedder is of immense service in swath-curing, and helps us to make fairly good hay without the labor and tedium of the old way. It remains for every farmer to size up his own requirements, but we feel like throwing out this caution for the benefit of those who may be tempted by labor scarcity to sacrifice quality to haste.

This much we will say: In seeking to save labor, look first of all to those implements which expedite operations without injuriously affecting quality. When buying a mower, choose a wide-cut. Six feet is the smallest that should be used under any ordinary circumstances, and our preference is for the seven-foot. It is not a case of which size will do the cutting, but which will enable its owner to earn the best wages (difference in cost considered) while doing the work. Then, every man who makes any quantity of hay should have a tedder. It saves time in curing, and improves the quality of hay made. In the barn have the quickest possible means of unloading. It savors of bad judgment to see a man loading clover with a hay loader and pitching it off by hand. It is reversing the logical order. One may be driven to use the loader, especially for timothy, but of all the labor-saving implements on the farm, one of the last to purchase is the hay loader. That is not denying one would be forced to use it under certain circumstances, but we are strong in the faith that the best hay is made by allowing the curing process to finish in the coil. Not only does it improve the hay made, but it greatly lessens the danger of heating in the mow. Commence cutting early, cut not too much at a time, ted promptly and two or three times; wilt with the air instead of scorching with the sun, and observe every possible precaution to prevent loss of leaves, which are by far the most valuable part.

### OUR MARITIME LETTER.

If the price paid for every product of the farm were any indication of prosperity, then Maritime agriculture is in a most flourishing condition indeed. There is a cry all over the Dominion, in the Federation to the south of us, and even beyond in old Europe, where the cost of living (except to tourists from America) was always given at such low figures as to jaundice us at once with envy; that, by some strange process, everything had so increased in price as to fairly frighten the old-timers and keep would-be political economists up nights working out the problems which stared everyone in the face. Whilst there was much talk of the dearness of farm products, as a general thing, not till this year did this phase of the question strike our farmers as fully justifiable. True, there was a good price for one thing or another, but there was a poor price, too, for quite a list of farm offerings, and this cut things down to a mean enough average on the whole. This season has taken all per contra argument, then, out of our mouth, and compelled us to admit that figures are so high that some overscrupulous farmers are loath to take the current price for their goods.

The other day a local daily expressed surprise that the Province of Prince Edward Island, for example, was buying so much high-priced seed. "It is a sign of agricultural prosperity," it gravely asserted. It struck us quite otherwise, and we were inclined to animadvert on the unthinkingness of newspapers, anyway. A moment's consideration should have convinced the writer that there was nothing else to do but buy seed grain, and buy it largely, if the fields were to be seeded at all; and who would let the little reverses of a year affect his faith in agriculture here? As a matter of fact, the cereal crop of the Province, and its root crop, too, so far as the staple root—potatoes—were concerned, for that matter, were lamentably small. In some sections the whole wheat return was completely wiped out by the joint-worm; and even where it was thought to be the one generally good grain crop, at threshing it was discovered to be disappointingly light. Only exceptionally skillful or exceptionally lucky farmers (you take your choice) were able to grow good enough grain for seed. This explains the large buying at the steep prices catalogued. There is not much evidence of prosperity in that.

But the farmers are able to buy. They can sell everything about the place at a big price, and most of them have something to sell. If potatoes, they are 50 cents—twice the ordinary price; if oats, they are up to the same figure—a specially high one for here; if wheat, the dollar mark is far exceeded; if barley or buckwheat, or any of the minor grains, the limit is out of sight, too; and so with everything the soil produces. In animals, the same soaring propensity is noticeable. Why, they want the price of two horses of a few years ago for any old plug to-day, and cattle, sheep and pigs are proportionately high. Eggs are away up, too; the farm that is well kept and managed is really paved with gold. The amount of hay so many were anxious to unload at a nominal figure (\$8.00 pressed) last fall and all winter, on account of the very retarded growth of the meadows and pastures, is now being doled out to the very sellers for double that figure in many cases by the merchants. But the provident are not in this ridiculous position. Yesterday, as we passed along the road, we chatted a moment with a farmer who is a farmer at his plow, one who has proved the surety of his vocation, and whose life and realizations have done more to convince us that this is a good land to live in than anything else, and he was telling us that, interspersing the arduous days of cropping, he had sold off his farm three thousand dollars' worth of field products, and had still enough to carry his great stock through and help out the needy and improvident considerably. As everyone knows, we have no big farms here; this is one of the average ones, but its owner is no average farmer, however (we wish that he was); he is a real, hustling farmer—a man after our own heart—who has made every dollar himself, in two score of years, unaided.

The prices are exceptionally high for farm products in the sea divisions; the suspended navigation withheld the regular supplies of roots and

rough grains from such centers of activity as Sydney, etc. It behooves everybody to get in as good a crop as possible; there is every prospect of his getting repaid. The season is late, but he who gives the increase is able to repair this deficit handsomely, and will. A. E. BURKE.

### WHAT IS WRONG WITH THE COMMON SCHOOLS?

"Common Sense in Common Schools," is the heading of a pointed article in the Saturday Evening Post, by Edwin G. Cooley, Superintendent Chicago Public Schools. While written from the city point of view, it expresses a principle that is even more applicable to rural than to city schools. It is, in substance, that the American common schools are not common enough. He would have them brought closer to the common people, adapting them more practically to the needs of the great body of pupils, and into truer range with the life-work of the average boy and girl educated in them. More especially does he apply this criticism to the High Schools, which are declared to be closer to the colleges than to the people. "What," he pertinently asks, "is a common-school education for, unless it be to fit the mass of pupils for the practical duties of life? And if the High School leaves its pupils with only a preparation for colleges, instead of a preparation for life, when most of its pupils cannot go on into college, does it not score a lamentable failure in efficiency?" The point is illustrated with a typical case. A bright boy, whose mother had put him through High School by taking in washing, was leaving to enter a factory. What sort of preparation had his school course given him for the life upon which he was entering? Four years of Latin, two years of Greek, two years of German, one year of French, two years of mathematics, a minimum of English and history, and no civics or political economy! It was not the boy's fault. The curriculum, the whole educational system of the grade and High School was responsible for his educational misfit. He had a good start for college and a professional career, but he could not afford to go onward; his equipment for making his way in a factory was about as deficient as the imagination could suggest. And the city pupils who go the way of the store, the shop and the streets are thousands to the tens who persevere to the university class-room.

There is too much of a tendency, so far as the common schools are concerned, to educate the mass of our boys out of touch with their social and vocational needs, to make prigs of them, and to give them a dislike for any calling which will not allow them to wear nice clothes and keep their hands unsoiled.

Arising out of the tendency of the framers of curricula to aim so exclusively toward the university, is the idea prevalent among pupils, parents and teachers that there is little use going on in the High School unless expecting to graduate from it. Hence, after the age of truancy is past, the boy is tempted to use school as a blind to escape work, and spend his time ranging the streets and acquiring a comprehensive education in degeneracy and vice.

Summing up, Mr. Cooley says:

"If I were to indulge in a word of prophecy, I would say that the High School of the future will be closer to the people than to the college; that its curriculum will do more for the children of the plain people; that it will make a broader and stronger appeal to, and a better provision for, the boy who has small interest in college, but feels he must 'quit and go to work'; that its course will smack less of those studies which tradition holds to be divinely-appointed agencies for 'mental discipline'; that it will have less of the cast-iron programme, and will less and less attempt to mold all pupils to the same pattern; that it will give culture to those who seek culture, and help all to strike straight for the goal dictated by their own natural impulses, whether that be a business or a profession.

More than that, it will increasingly put up to the pupil himself the selection of his course and the responsibility of its faithful pursuit. And there is nothing better for the development of character than driving at a fixed purpose with a clear sense of responsibility.

Our public schools will not be common in the

truest sense of the word until these conditions are measurably realized, and until the ability of the pupil to build a gas engine, construct a dynamo or make a difficult chemical analysis is as highly recognized as the ability to translate Virgil or Homer, or demonstrate a tough proposition in geometry."

**THE HORSE TRADE.**

The rapid growth of Canadian cities and towns, the unprecedented expansion of business enterprise, and the rush for settlement of our new farm lands, are all factors in the continued demand for work horses in greater numbers than at any other period in the history of the country. Those who are fortunate enough to have horses to sell are reaping a rich harvest; those who have to buy are paying very high prices for the horse-power they need, and there is every prospect that an active demand and stiff prices will continue for years to come, as in the present state of affairs there is nothing in the nature of a boom but the demand, and the prices are the legitimate result of the conditions of trade and the movements of immigration and business projects. There are only two sources from which the stock with which to supply this demand may be derived, namely breeding and raising the colts on our farms or importing from other countries. The latter course is clearly impractical of accomplishment with profit, since prices rule quite as high and the demand is quite as great in the neighboring country, and also in Europe. The only recourse, therefore, open to us appears to be the raising of the stock to meet the requirements. And, with present prospects, there is reasonable encouragement to Canadian farmers to breed and raise colts of the classes best suited to the market and likely to bring the best prices. We have a healthy climate, and can grow in abundance the necessary feed for this class of stock at a minimum of cost of production.

While the demand and the market prices at present are good for both heavy-draft and light horses, and men who are competent judges of the latter, and whose fancy runs in that direction have a large and profitable field for their effort in producing them, the average farmer is certainly safe in breeding and raising the heavy class, which come into use and profit at an earlier age, and are less liable to be discounted in value by slight blemishes or accidental injury, since they may, despite these handicaps, make satisfactory workers.

The great lack in this country, however, is the scarcity of suitable mares from which to breed the class of heavy horses that command the best price. Enterprising importers are bringing from Great Britain and other countries, in considerable numbers, young mares of the needed class, which are being sold at auction at the buyers' prices, and are being secured at figures not much higher than good geldings bring in the market. These should help to supply the lack of good brood mares, while heavy-draft stallions of good breeding and quality, in much larger numbers than in former years, are standing for service, and the good, young, home-bred mares coming of breeding age, if judiciously mated, will help, in the near future, to supply in large numbers the class of work horses called for, so that the prospect is by no means discouraging, but rather the opposite.

**JUNE: AN IMPRESSION.**

June is the month when the face of all nature is glad. The grass is the freshest, trees are the greenest, the dew sparkles brightest, and the fragrance of clover perfumes the air. In the fields and on the roadside graze sleek herds of cattle, while the horses' coats shine with a glistening sheen. The flocks on the hills browse in glad some contentment, and the dog gambols merrily out on the lawn. Dame Nature rejoices, and man studies his gratitude, glad that he lives in the venture of spring. The children are merry, the mother is happy, and the girls look their best in the freshness of June. The bare-footed schoolboy finds a new joy in Nature, and answers the birds as he answers the bell. There is joy in the meadows, there is joy in the woodlands, there is joy in the new forms of beauty on hillside and dale, there is joy enough to be living; the joy of existence, the intoxication of sense and of mind.

**HORSES.**

**WHAT THE HORSE HAS OUTLIVED.**

Since the days when steam power was utilized for locomotion, the doom of the horse has been predicted, says a writer in the Horseshoer's Journal. With each subsequent invention of appliances for the help of locomotion, this same talk has been heard. When the first passenger train ran on rails, stage-drivers and teamsters shook their heads and sighed for the fate which seemed

panionship of a horse. He never gives advice unasked, nor does he "bellow forth his soft complainings" when the road happens to be a little rough; he simply remains with you, faithful, silent, uncomplaining, ready to ride at your bidding, even to death, if need be.

**AMERICAN CARRIAGE-HORSE CLASSIFICATION.**

The United States Department of Agriculture, in co-operation with the newly-organized American Association of Trotting-horse Breeders, has drawn up a proposed classification for American Carriage horses, as a guide for the establishment of such classes at leading State and National fairs. The classification is the work of the above Association's Committee on heavy-harness horses, composed of Joseph Battell, registrar of the American Morgan Horse Register, Middlebury, Vermont; General John B. Castleman, President of the American Saddle-horse Breeders' Association, Louisville, Kentucky; A. T. Cole, Wheaton, Illinois; H. K. Devereux, secretary of the American Association of Trotting-horse Breeders, Cleveland, Ohio, with Geo. M. Rommel, the Animal Husbandman of the Bureau of Animal Industry, U. S. Department of Agriculture, as chairman. Prof. C. F. Curtis, director of the Iowa Experiment Station, was also consulted in regard to this classification, and had a great deal to do with formulating it. This classification has been submitted to the secretaries of the leading fairs throughout the country, and several of them are giving the matter consideration. We append a copy of it as drafted:

**TYPE.**

The type desired for the American carriage horse is as follows: Not under 15 hands for mature horses; smooth, compact and symmetrical conformation; neck of good length, inclined naturally to arch; sloping shoulders; well-set legs of medium length, sloping pasterns and good feet; short, strong back; well-sprung bayrel, or middle well-ribbed up to coupling; smooth loins; full flanks; straight croup, with well-set tail; full, round buttocks.

**CONDITIONS GOVERNING ENTRIES.**

Classes open only to horses of American blood. Stallions in Classes 1 to 5, inclusive, must be registered either in the American Trotting Register, as standard; in the American Morgan Register or the American Saddle-horse Register, and certificate of such registry must be shown in the ring, if required.

Entries in all classes for mares, entries as get of sire in Class 5, and produce of mare in Class 10, and entries in Class 11, must be sired by a stallion registered as above, but the dams of such entries need not be registered mares; the breeding of dams, however, as far as known, must be given when entry is made.

No mare having any draft cross will be eligible. Any exhibitor falsifying the breeding of entries will be barred.

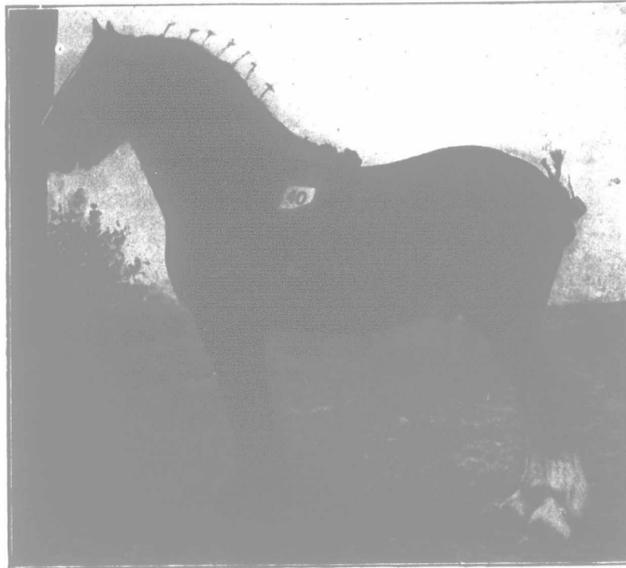
Entries in all classes must be practically sound.

**JUDGING.**

Entries in all classes to be judged on conformation, style, action and manners, as a suitable type of carriage horse. Special attention will be given to truthfulness of action. Good knee and hock action are desirable. Entries in all

classes should trot and walk straight and true, and judges will especially avoid horses showing any tendency to mix gaits, paddle in front or sprawl behind.

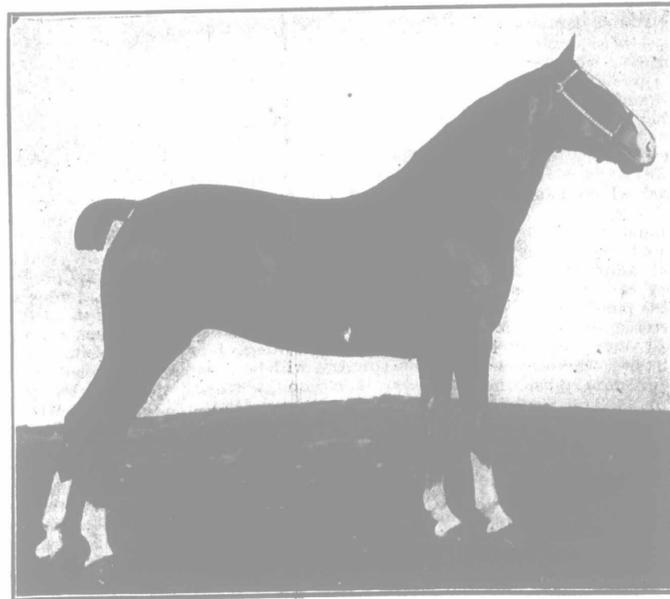
The following percentages will govern judges in Classes 1, 2, 3, 4, 6, 7, 8, 9: General conformation and all-round suitability as a carriage type, 60 per cent.; style, action and manners, 40 per cent.



Clan Forbes (12913).

Clydesdale stallion, brown. Winner of junior premium (three-year-old), Glasgow Stallion Show, February, 1907. Sire Clan Chattan, by Mains of Airds, by Prince of Wales (673).

in store for the horse. The opposite proved true, and the demand for the services of the horse was increased instead of diminished. The bicycle was going to do away with the horse, and now comes the automobile, and again is his fate sealed. The motor comes in closer competition with the horse than did the locomotive, but still the horse will stay. It is not unlikely that naphtha, gasoline or electricity will relieve the horse of some of his heavier burdens, but the horse reared for man's pleasure will remain. Certainty of his faithful services on the one hand, and of comradeship in



Boquhan Sunrise.

Hackney mare, chestnut; foaled 1902. Sold in England for \$2,750. Sire Rosador (4964).

tight places on the other, have endeared the horse to man with a bond of sympathy too strong for any whiz-wagon to sever. As long as there is pleasure in the exercise of one intelligence over another, so long as beauty, strength and animation challenge admiration, so long will the horse remain in the place which he is destined to fill, and will remain as the companion of man.

There is something irresistible about the com-

The following percentages will govern in Class 5: General conformation and all-round suitability of sire as a carriage type, 30 per cent.; style, action and manners of sire, 20 per cent.; general conformation and all-round suitability of get as a carriage type, taken as a whole, 30 per cent.; style, action, manners and uniformity of type in get, 20 per cent.

The following percentages will govern in Class 10: General conformation of dam as a brood mare of the carriage type, 50 per cent.; general conformation, style, action and manners of the foal, 50 per cent.

The following percentages will govern in Class 11: General conformation of entry as a carriage type, 70 per cent.; style, action and manners, 30 per cent.

#### MANNER OF SHOWING.

Entries in Classes 1, 2, 6 and 7 to be shown in harness, hitched to any suitable vehicle. Entries in all other classes to be shown in hand to bridle.

Excessive weight in shoeing in any class is forbidden.

#### CLASSES AS FOLLOWS:

- Class 1.—Stallion 4 years old and over.
- Class 2.—Stallion 3 years old and under 4.
- Class 3.—Stallion 2 years old and under 3.
- Class 4.—Stallion 1 year old and under 2.
- Class 5.—Stallion with three of his get of either sex; get need not be owned by exhibitor.
- Class 6.—Mare 4 years old and over.
- Class 7.—Mare 3 years old and under 4.
- Class 8.—Mare 2 years old and under 3.
- Class 9.—Mare 1 year old and under 2.
- Class 10.—Mare with foal of either sex.
- Class 11.—Foal under 1 year old, either sex.

#### CLYDESDALE STUDBOOK RULES.

Since there appears to be considerable lack of knowledge among horsemen as to the requirements for registration in the Clydesdale Studbook of Great Britain and Ireland, commonly called the Scottish Studbook, we here reproduce the amended pedigree rules as printed in Volume 20, no changes from these rules appearing in any subsequent volume published.

#### PEDIGREE RULES

Any stallion, or any mare which has produced a foal, may be registered, if got by a registered sire, and out of a mare (got by a registered sire), any of whose produce has already been registered.

Failing compliance with this rule, the following rules will apply:

#### STALLIONS.

A stallion foaled before 1890 must be got by a registered sire, and his dam must be got by a registered sire. The name and address of the breeder of the dam must in every case be given.

A stallion foaled in or after 1890 must be got by a registered sire, out of a registered dam, or he must have a pedigree showing three registered crosses—that is to say, his own sire, the sire of his dam and the sire of his gr-dam must be registered. In every case the name and address of the breeder or breeders of the dam and grand-dam must be given.

#### MARES.

A mare can only be registered which has produced a foal.

A mare foaled before 1890 must be got by a registered sire, and her dam must be got by a registered sire. The name and address of the breeder of the dam must in every case be given.

A mare foaled in or after 1890 must be got by a registered sire, out of a registered dam, or she must have a pedigree showing three registered crosses—that is to say, her own sire, the sire of her dam, and the sire of her gr-dam must be registered. In every case the name and address of the breeder or breeders of the dam and gr-dam must be given.

The additional produce of mares already entered in previous volumes must be registered by the owners of the respective mares at the dates of foaling of such additional produce, or, in the event of its being impossible to obtain a certificate of the foaling of such additional produce from the owner of the mare at the date of the foaling of such produce, the fact that the alleged produce of any registered mare, foaled after the date of the original entry of such mare, is her bona-fide produce, must be otherwise proved to the satisfaction of the Council.

N. B.—Nothing in the foregoing rules will be held as disqualifying any animal for registration which could have been registered under the rules governing entries for Volume XIX; but no horse foaled after 1893 will qualify stock for registration unless he be himself registered.

While it is good taste to have a team of the same color and markings, it is good judgment and common sense to have a team of similar action, equal strength, and power of endurance.

## LIVE STOCK.

### OUR SCOTTISH LETTER.

The action of the Clydesdale Horse Association of Canada, in so suddenly imposing restrictions on entries of imported stock, is still the topic of interest among Clydesdale breeders here. Buyers from British Columbia and New Brunswick are with us, as well as a number from the better-known Provinces of Quebec, Ontario and Manitoba. One can observe a distinct levelling-up of quality in the animals exported this season, but this has nothing to do with the pedigree rules. As a matter of fact, had the rules now being enforced been in existence two years ago, several of the best animals taken to Canada would have been shut out. On the other hand, the imposing of the rules has led to keener investigation of the breeding of some of our best breeding horses, with the result that some animals which it was feared were shut out, are now seen to be quite entitled to get in. A notable case is that of Mr. Park's "Marmion," one of the best horses we have here, and sire of the Cawdor-cup mare Rosadora, which Mr. Bryce took to Arcola, Sash., two years ago. It has now been found that the dam of Marmion is entitled to be numbered, her pedigree having been traced two generations further back than it was before, and the effect is to qualify for the Canadian market a large number of animals which were up to this time regarded as disqualified under the new regulation.

One or two points are not quite clear to us here. What is the relation between the Clydesdale Horse Association of Canada and the office in Ottawa where the pedigree records are prepared and kept? What is the relation between the regulations of the Clydesdale Association and the customs regulations at ports of landing? Does the Association dominate the Customs, or must its rules be homologated by the "Record" Office before they can become obligatory on the Customs? We have not been able to get much light on these points from official quarters, and Canadian buyers with us at present do not seem to know much about the business.

#### CLYDESDALES AND AYRSHIRES FOR CANADA.

The past month of May has been a very busy one in the export line. Not only Clydesdales, but Ayrshires in large numbers, have left our shores for Canada. Messrs. R. Hunter & Son, Maxville, Ont., and Mr. R. R. Ness, Howick, Quebec, both made large shipments of Ayrshires early in the month. Messrs. Hunter were piloted chiefly by Mr. A. W. Montgomery, Lessnessock, Ochiltree, and Mr. Ness secured the bulk of his eighty head from Mr. Andrew Mitchell, Barcheskie, Kirkcubright. Two things are very gratifying in connection with these shipments. The animals were all put through the ordeal of the tuberculin test, and they were purchased for dairy purposes, and with little regard to "fancy" points. The Milk-record scheme of the Highland & Agricultural Society, in spite of adverse criticism from various quarters, has proved of high educative value. Many breeders are beginning to see that it is much better to know the milking powers of their cattle than to be assured that they have a proper outline of udder and teats. What the ultimate result of the milk-record scheme may be, remains obscure, but the benefits accruing are so manifest that the use of a record is bound to become more and more general. The most profitable cattle will be those that are proved such on evidence produced. There is still a strong prejudice against the tuberculin test. The main objection is the uncertainty of the test and the difficulty of knowing when an accurate test has been made. In spite of this, ere long, I am persuaded, breeders in this country will be found to acknowledge that the test is a good servant, which ought to be encouraged. Messrs. Hunter & Son and Mr. Ness have taken away a splendid assortment of genuine Ayrshires—just the kind we could least afford to part with. You Canadians know what you want, and are willing to pay the price. When this is so, all is well. Scottish farmers need the cash, and can generally be got to part, even although the animals be invaluable for breeding purposes.

Harking back to the Clydesdale business, the shippers of the month have included Captain Poe, an Irish gentleman, from Santry Farm, Gleichen, Alta.; John Graham, Carberry, Man.; W. J. McCallum, Brampton, Ont.; R. A. Watt, Elora, Ont.; J. S. Morrison, Kamloops, B. C.; R. D. Dundas, Springville, Ont.; George Hay, Lachute, Quebec; J. F. Elliott, Oxford Centre, Ont.; Messrs. McMillan, Archibald and Cudmore, of Seaforth, Ont., and Lavin and Richardson, Columbus, Ont. All these firms have taken away good stock. Mr. McCallum had in his shipment the second-prize three-year-old stallion at the Glasgow Show. This horse was owned by Mr. M. Marshall, and a level, true Clydesdale he is, of quite high-class breeding. His sire was the Cawdor-cup champion horse Marcellus (11119), and his dam's sire was the H & A. S. champion horse Benedict, which Messrs. A &

W. Montgomery thought good enough to bring back from Illinois, where he was owned by Mr. Bass, Fort Wayne.

The awards at the May shows did not greatly differ from the form seen at those held during April. The weather, however, has been of the most unsettled nature. It is long since we have had such a stormy May. For a week past rain has fallen heavily, and if there be any truth in the ancient saying that a wet May makes hay, we ought to have a bumper hay crop this year. Along with heavy rain, we have had a low temperature. Cold, searching east winds have been prevalent, so that the wisdom of another ancient "saw" has been demonstrated—"Ne'er cast a clout till May be out." Those who accepted the almanac theory that May is the first month of summer, would get a tremendous surprise this year. Even to-day, the last of the month, the weather has been more like that of February than anything we knew, even in February. All the same, spring work is extremely well advanced, a condition of things chiefly due to the splendid weather enjoyed in April.

Gowanbank Harness-horse and Pony Sale took place in the middle of May, when 43 driving horses and ponies made an average of £54 13s. 6d. The highest price paid was 250 gs. for the fine mare, Malvena, which won first at Glasgow in 1906. Mr. Morton has been an enthusiast for driving horses of the Hackney type, and his great breeding stud at Gowanbank, Darvel, should be visited by all horses-buyers. It is the largest breeding stud of Hackneys and Ponies in this country. It is under the personal supervision and control of Mr. Alex. Morton, Jr., who is one of the very best horsemen in this country.

Fanciers of harness and driving horses are on the qui vive for the opening of the great International Show at Olympia, this day week. No such event has ever before taken place in this country, and it is a moot point how it will succeed. Olympia, where it is to be held, is a huge place in the west end of London. It is one of the most spacious buildings in the world for outdoor sports; indeed, it is so spacious that one finds it hard to believe he is under cover when viewing the arena. No such horse show has ever before been held in Great Britain as that now in view. The bench of judges in each case will include one British, one Continental and one transatlantic juror. How they will hit it off, remains to be seen. The transatlantic judge, in most cases, is likely to attach greater importance to speed than is done by the British judge; but all this will be better understood a week hence than it is now.

The Colonial Premiers have come and gone. Some of them, we see, have reached home. On the occasion of the former visit, Sir Wilfrid Laurier was the hero; this year the famous Boer leader, General Botha, bore off the laurels. Great Britain is a wonderful nation. We give a constitution to those who fought us, and honor all we can the man who most courageously opposed us. Sir Wilfrid Laurier spoke on the cattle policy of 1896 in depreciatory terms. It was not expected that the Canadian Premier could do otherwise—but, *cui bono*? What purpose is served by speaking of that policy as an unfriendly act to Canada? It is certainly not intended or defended as such. At a meeting to celebrate the opening of a new foreign-animals wharf and abattoirs, at Werklands, Glasgow, Mr. Nathaniel Dunlop, chairman of the Allan Line, spoke in similar terms. He looked for the day when Canada would be as truly regarded as part of the Kingdom as Ireland is. Many of those who defend the cattle policy of 1896 do the same. But how is the vision to be realized? What can bridge the Atlantic or abolish the frontier line of 3,000 miles between Canada and the States? From the standpoint of the cattle-breeder of Great Britain, these considerations do not count. He is an Imperialist in the best sense, and few but doctrinaires would deny to Canada a preference. But, meantime, Canada has her own interests to consider, alongside her great rival south of the lakes; she has her own problems to solve, and, until they are solved, the greater vision of Mr. Dunlop must tarry.

"SCOTLAND YET!"

#### HOARD ON BOVINE TUBERCULOSIS.

Hon. W. D. Hoard, of Wisconsin, related his experience in ridding his herd of dairy cows of tuberculosis. Seven years ago he tested with tuberculin his herd, which was a collection of pure-breds and grades. None of those he had raised reacted, but during that and the succeeding year he killed seven others, two of them pure-breds. Every year since he has tested his herd, and not a reaction occurred. He uses whitewash and other disinfectants liberally once or twice per year. He endorses the King system of ventilation, so that the cattle will have pure air, retarding disease and giving vigor and constitution. Lastly, he will not put an animal in his herd which he is not satisfied by the test is free from taint of the disease. This is his plan of getting rid and keeping rid of bovine tuberculosis.

ROYAL COUNTIES SHOW.

Taken as a whole, the Royal Counties Show, held at Maidenhead the last week in May, was a thoroughly representative one.

HORSES.

The classification does not give a section for Shire horses, but follows the somewhat out-of-date method of giving classes for what are termed Agricultural Horses, but practically all the leading winners were of the Shire breed. The entry was not large, but the quality was very good. Danesfield Stone Wall and Shustoke Monarch were first and third in the aged-stallion classes for Mr. Hudson, the former taking the champion prize as best stallion. Mr. F. A. Muntz, with Dunsmore Franklin, was second. In the two-year-old class the competition was better, and King Forest won leading honors and reserve number for champion for Mr. F. E. Muntz, King of Tanbridge and Buscot Victor being second and third for Mr. Michaelis and Sir A. Henderson. The brood mares were a good lot, Blythwood Laurel leading the way for Mr. Hudson, followed by Norbury Early, owned by Mr. M. Solomons. The winner here was reserve number for champion mare, being beaten by Mr. Muntz's Aldeby Lady Jameson, first in the three-year-old class, whose closest competitors were Alexandra of Tanbridge, owned by Mr. M. Michaelis, and Danesfield Confidence, owned by Sir A. Henderson. In a good class of yearling fillies, Mr. Salomons and Lord Winterstoke, with Norbury Juno and Rickford Ladybird, went first and second.

CATTLE.

Shorthorns take precedence in the cattle classification, and the competition was very good in most sections. Evanger and Bapton Viscount were winners of the Shorthorn Society's prize and its reserve for the best bull in Berkshire, Wiltshire or Hampshire the former owned by H. M. the King, and the latter by Mr. J. Deane-Willis. The old-bull class was headed by Elvetham Monarch, from Lord Calthorpe's herd, H. M. the King taking second with Enchanter, and Mr. R. Taylor reserve with Royal Beaufort. In two-year-olds, Royal Windsor won first and champion honors as best male of the breed for H. M. the King. This is a beautiful roan, and well grown. Mr. R. Taylor's Baron Linderstorm, a white, took second honors, followed by another white, Mr. Willis' Stone Crop as reserve. In yearling bulls, H. M. the King's Evander, reserve number for champion honors, was first, followed by Bapton Viscount. In the cow class, Lord Calthorpe's beautiful Roan Sweetheart was clearly first, Mr. R. Taylor's Don-side Princess following. The latter exhibitor, with Pitlivie Rosebud 2nd, won first honors in a good class of two-year-old heifers, and also champion honors with the same typical heifer. Eva, a roan of fine type and character, was second for H. M. the King, and her herd mate, Marjorie, another roan, won first in the yearling class, and was made r. n. for champion honors. Mr. Willis took second, and Lord Calthorpe's Elvetham Sweetheart was r. n. The dairy Shorthorn classes, two in number, were well supported, and there was very keen competition in both. Mr. G. W. Taylor won first honors in the older class, followed by two entries of Lord Rothschild's that were second and r. n. In the younger class, His Lordship was first with a fine roan cow, whose position was closely challenged by a roan Waterloo cow owned by Mr. C. A. Scott-Murray, which was second, with Mr. C. Adeane as third.

There was a grand entry of Aberdeen-Angus, both in respect to number and quality; in fact, the strength of competition, as well as the number of entries, shows how popular this breed is becoming in the south of England. The bull Idelmeare won first honors and champion as best animal in the class, and the gold medal for the same, for Mr. T. H. Bainbridge; Everwise, Mr. J. J. Cridlan's excellent bull, took second honors. In the younger class, Sir G. Cooper was first and second with a grand pair of bulls. The winner was Black for Ever of Ballindalloch, and his herd mate, Premier of Hursley, was second, leaving the reserve number to Mr. W. G. Greenfield's Royal Justice of Haynes II. In the cow class, Mr. Bainbridge's Eileen of Abergeldy was first, followed by Darling of Haynes II., owned by Mr. Greenfield. The class of heifers was a remarkably fine one, and its winner, the Rev. C. Bolden's Veratis of Preston, was a particularly fine and well-grown heifer, and well deserved its champion honors. Messrs. Bainbridge and Greenfield were second and third.

There was a very good and typical entry of Herefords. H. M. the King, with Admiral, won first honors for old bulls, followed by the Earl of Coventry's Lama. The younger bull class had Mr. D. A. Thomas' Samson for its winner, followed by his herd mate, Kaiser. Madam, the Earl of Coventry's beautiful cow, was winner in her class. A like position in the two-year-old heifer class was occupied by Mr. W. B. Tubb's entry, Princess Beatrice, and Mr. J. Rowlands won first honors in the yearling-heifer class.

The entries in the Jersey classes were very large indeed, Lord Rothschild winning champion honors for bulls with Oxford Wrangler, and

Messrs. A. Pocock and A. Miller Hallett were winners in the other bull classes. Lord Rothschild, with Frolic, took the champion prize for females; this is a very beautiful yearling heifer. Mr. A. Miller Hallett, A. Pocock, Earl of Rosebery, Lady Smythe, Lady de Rothschild, were amongst the other leading winners.

The entries in the Guernsey classes were good, and the competition keen. Mr. H. F. Plumptre, with Roland of Seaview 10th, won first and champion honors in the old-bull class. Messrs. E. A. Hambro, F. Hargreaves, J. Pierrepont Morgan, E. St. Aubyn and Lady Tichbourne were the other leading winners.

A choice lot of Kerrys and Dexters were present. Lady Greenall and G. L. Farmer were the principal winners in the former. The Duchess of Devonshire, Hon. Mrs. C. Portman, Mrs. S. A. Lee, etc., were the leading winners in the latter. The dairy-herd competition was an interesting one, and brought in an excellent entry.

SHEEP.

The Hampshire Down entry was a remarkably fine and good one. Champion honors, as well as special for best pen of lambs, was won by Mr. James Flower. This breeder, together with Mr. T. F. Buxton, Sir W. G. Pearse, Bart., Messrs. H. C. Stephens, Cary Coles, and the Marquis of Winchester, were the principal winners.

The Southdown classes were well filled with a thoroughly typical entry. Champion honors for best exhibit, together with the gold medal for the best male, went to Mr. C. Adeane, whose yearling ram, two-shear ram and ram lamb were specially good. The Duke of Richmond won champion honors for females with a grand pen of yearling ewes; His Grace was also second for both yearling and two-shear rams. Sir T. V. S. Gooch was first for ram lambs with a remarkably fine pen. The Exors. of Col. McCalmont were represented in the lamb classes with some rearkably good lambs, and their shearing ram was a grand one. The Duke of Devonshire was also well to the fore, and the exhibits made by the Duke of Northumberland, Sir J. Werner and Mr. J. Colman were of high merit.



Border Leicester Shearling Ram.  
Winner at leading Scottish shows.

Sir Richard Cooper and Mr. A. Tanner shared the honors in the Shropshire classes, with very typical sheep.

The entry of the Kent or Romney Marsh sheep was a remarkably good one. Mr. Charles File won first honors for both yearling and two-year-old rams, and also second for yearling ewes. In this class Mr. William Millen was first, and Mr. J. B. Palmer won second honors in the yearling ram class with a very typical sheep. Mr. F. Neame was third in the two ram classes, and v.h.c. in that for yearling ewes.

A choice lot of Oxford Downs represented this breed, and Mr. J. Horlick won first honors with a particularly fine ram. He was also second for yearling ewes, in which class Mr. Jas. T. Hobbs was first, the latter breeder being second for yearling rams. Mr. G. Adams won first honors in the ram lamb class, as well as second, with first-class pens.

The Dorset-horn entry was highly satisfactory, and the leading winners were Messrs. E. A. Hambro, who won for yearling rams and ewes; Mr. W. R. Flower, who was second for yearling rams and first for ram lambs; and Mr. F. J. Merson, who was second for yearling ewes.

SWINE.

The entry of Berkshires was a remarkably good one, numbering 84 pens. Mr. G. T. Inman's Highmoor Mikado, last year's winner, again repeated his success, and also won special as best boar of the breed. The Duchess of Devonshire, Mr. R. W. Hudson and Lord Calthorpe were the other leading winners for boars. The last-named exhibitor

won first with Elvetham Fancy in the young-sow class, and with this exhibit took the special prize for the best sow, and also the champion prize for the best Berkshire. The Duchess of Devonshire, Mr. R. W. Hudson, and Mr. J. Jefferson were also winners.

The Large or Middle White section was a small one. Mr. C. Spencer took leading honors for boars, and Mr. R. M. Knowles for sows.

W. W. C.

RECOLLECTIONS OF A SHEPHERD.

Born on a bush farm in Ontario, in the first of the forties of last century, among my earliest recollections is that of the lambs in my father's flock gambolling in the sheepfold in the balmy springtime. It was then I learned to love sheep, and my affection for the gentle, innocent "golden-hoofed" has never waned, but rather grown stronger with the passing of the years. And it is a constant mystery to me that in the early years of the twentieth century, with a growing demand for mutton and with market prices per pound higher for lambs than for any other class of meat-producing stock, sheep are so sadly neglected in Canada, a country in which the conditions for raising and feeding sheep to advantage are equal to those in any other land under the sun, and superior to those in most of the countries in which sheep husbandry is a prominent industry.

THE DOG NUISANCE.

I do not believe I am a pessimist, and I am loath to believe that the country is "going to the dogs," yet, if one were to judge by the tenor of some of the letters that have appeared in "The Farmer's Advocate" in the last few months, apologizing for and pleading the cause of the canines, on account of their usefulness, one might be led to doubt whether dogs, which are the most serious menace to the industry to-day, are not of more benefit and importance to the farmers of the country than are sheep, and should be protected by law instead of their owners being taxed to provide a fund from which to indemnify flock-masters for losses from the destruction of their property by these brutes. For my own part, I think I may say, without boasting, that I farmed fairly successfully for thirty years, sheep-raising being to me the most profitable branch of the business, without the assistance of a dog or feeling acutely the need of such assistance. Though I kept more sheep than most farmers, my own losses from the depredations of dogs were practically nil, but I am free to acknowledge that I believe my voluntarily acting as undertaker at private funerals for more than the average number of prowlers put out of business by one man, probably accounts largely for my immunity in that respect, and my admitted prejudice against dogs in general is due principally to memories of terrified, torn and bleeding, and not a few dead innocents seen in the flocks of neighbors that had been worried by midnight marauders in dogskin.

It seems to me that if there is a case in which a man is justified in taking the law into his own hands and protecting his property, it is where the authorities, at the mandate of selfish people, or on account of their indifference, decline to afford him reasonable protection, and I have never experienced any compunction of conscience over the removal of "Wandering Willies" of the canine class, for I have observed that nearly every dog-owner believes, or at least professes to believe, that his dog is a good one, quite incapable of doing damage to a neighbor's flock, and will defend his reputation for good behavior even after the circumstantial evidence against him is sufficient to have hanged a human. I recall an instance where a flock-owner was repeatedly subjected to losses from the worrying and destruction of his sheep by dogs, and when he was sure he had recognized one of the dogs leaving his field in the morning, after a night of murderous work, as belonging to a neighbor, the neighbor indignantly denied that it was possible, as his dog never left home. The next night the sufferer placed some mutton treated with strychnine, as a preservative, in his field, and on the following morning found three dogs there that had evidently died suddenly, one of which was the harmless creature of his neighbor, who, on being confronted with the information that his dog had again been found in the field, stoutly protested that it could not be so, as his dog had been shut up in the woodshed all night. Of course, dog-owners will say it's a mean and cowardly act to put out poison, but what can a man do when the public tacitly take the part of the dogs against him. The trouble is that so many people who have no use for a dog fancy they cannot be happy without one, and dogs that have nothing useful to do are liable, like idle men, to get into mischief. My father managed a five-hundred-acre farm in this country for twenty-five years or more without a dog, but a hired man living in a house on the farm felt that he needed one, and indulged his fancy as a free man in a free country by securing a bull pup, which grew into a powerful brute, and as some sheep-killing had occurred in the neighborhood, he was more than

suspected of being implicated. Of course, it was unjust to blame him without direct evidence, but one night a noise was heard in the cellar of our house, where provisions were kept; a muffled gunshot was heard by only two in the house, and a bulldog was given a midnight burial under the apple blossoms in the orchard. The second day after the hired man asked for a day off to look for his lost dog. The request was sympathetically granted, though it meant stopping a team, and the use of a horse was generously proffered him on which he might ride. So, mounted on a heavy-draft charger, "Jimmy" scoured the concessions and sidelines in a fruitless search for a dog he loved, "not wisely, but too well." That was a piece of "diplomacy," as the man was too good a servant to quarrel with, and, though deception is not a virtue, it is just a question whether, in such a case, the end did not justify the means. The only case in which we ever personally suffered loss of sheep by dogs was so peculiar that it may be worth reciting. One morning the shepherd found a dead sheep in the field, with a dog securely chained to its body, the chain being twisted around the sheep's neck and buried in the wool, making a prisoner of the destroyer on the spot. The shepherd disentangled the chain and proudly started to lead the culprit homeward, but the brute was unwilling to follow, and pulled back so vigorously that his head slipped through the strap and he was gone. However, he and his ownership was known, and when the owner was asked if he had lost his dog chain and strap, he was glad to receive his lost property, but less willing to pay the price of three sheep destroyed, which he did on demand through a lawyer's letter, the circumstantial evidence being too strong to risk carrying the case to a jury. It was never known whether this dog had an accomplice, but as they generally go in pairs, it is probable that if there was another he decamped on seeing his partner in the toils.

It was not the intention of the writer on commencing this recital of reminiscences to drift into the discussion of the dog question, but the mention of this handicap to the sheep business, and the unreasonableness of the stand taken by many in defence of the dog nuisance, makes me "hot," and, having relieved my mind on this point, with the permission of the Editor, I hope to follow this with more interesting remembrances of my experience in handling sheep. I would just like to add, however, that I know I am not incapable of loving a good dog. I could, without effort, "gush" over a handsome and well-behaved specimen of the genus canis, and am willing to admit that there are some good and useful dogs which have a worthy place, but I am quite sure that the overwhelming majority of good dogs are dead ones, and I believe the percentage of good ones grows less as the need for them decreases, as it certainly does where laws against stock running at large are enforced; and, when it comes to a question between sheep and dogs, I vote for the sheep every time. One of the difficulties in securing satisfactory legislation for the protection of this class of property, I have noticed, is that legislators, municipal and parliamentary, depend for their places on votes, and sheep-owners in this country, unhappily, are in almost a hopeless minority; hence, the attitude of many legislators on the dog question reminds one of that of the Western States politician who on the stump expressed a willingness to vote for a dog tax, when, in a stage whisper, an auditor was overheard to say, "I've got five dogs, all good ones, and I'll be darned if I vote for that fellow." Before concluding, the orator explained that he was in favor only of taxing dogs where one man had more than five head.

#### DEFENDS THE COLLIE.

Would you allow me a small space in which to answer our enemy of the collie dog. Something like surprise took hold of me when I read, a week or so ago, Mr. Holdsworth's article against the collie. He says the collie is the worst enemy the sheepman has to contend with. I venture to say he has never kept sheep without a dog (to any extent). Also, he says that over in the Oriental countries is the only place where the collie is at all useful. I would like to see a shepherd in Scotland or Ireland who would even think of keeping a flock minus a collie.

Again, it was said that if you took an hour's drive in any direction from his farm, that you would be chased and yapped at by at least twenty dogs, all of which were pure collies. I am afraid the climax is reached. It would take me a good while to be persuaded to believe that that person ever saw a pure-bred collie. I'll guarantee that he wouldn't count five pure-bred collies in that whole pack that chased and yapped. Where the whole trouble comes in is that our farmers either won't or don't know how to take care of dogs.

When the noblest animal, the horse, isn't properly taken care of, it stands to reason that the second noblest, the dog, will not be. If our farmer friends bred and owned pure-bred dogs, and treated them as they ought to be treated—that is,

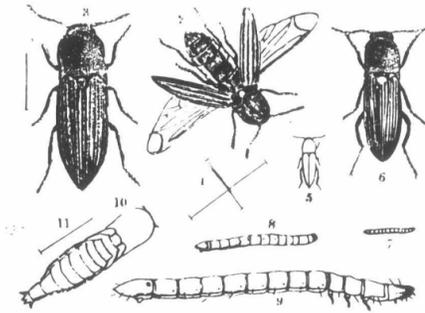
that they be trained properly—our friend Mr. Holdsworth wouldn't be chased by so much as a dog's bark. It is the owner, and not the faithful collie, that is to blame. I am sure I am not alone in taking the stand I do.

Gentle reader, what is your opinion of the collie? Is it a useless brute, as some people claim, or does it deserve credit? I am referring, of course, to pure-bred collies. It is to be hoped I voice the sentiments of most farmers in this regard. Let's have your opinion.  
Bracebridge. W. R. B. (Naturalist).

## THE FARM.

### WIREWORMS.

Complaints come of serious injury by wireworms, and an article on the subject will be timely. Examination of fields attacked will show numbers of slender, cylindrical, yellowish or reddish-brown, tough and shining grubs, with flattened heads and dark jaws. They have only three pairs of legs on the three segments following the head, and a single short, sucker-like foot in the middle of the last segment, beneath. When full-grown, they are about an inch long and one-twelfth of an inch wide. With these will be found, in spring, many specimens about half the size of the larger ones. Wireworms occur most frequently in low ground, and attack the roots of almost all plants, but particularly wheat and corn just coming up. They also bore into the tubers of potatoes in the autumn. Dr. Fletcher, of Ottawa, says it has been found that barley and rye are less attacked than any others of the small grains, and also that clover is little injured. Injury is most frequent on land which has been for several years in sod, and the attack is most severe in the second season after the sod has been plowed down. To explain why this is so, a few words about the life-history of the insect are necessary.



Wireworms (7, 8, 9); pupa (10)—enlarged. Click beetles—5, natural size; 2, 3, 6, enlarged.

Wireworms are the grubs of a large family of beetles known as click beetles, easily recognized by their power of snapping their necks with a click. The eggs are laid in summer about the roots of grasses and weeds, and the larvæ (wireworms) of most species take two years to come to full growth. They change to pupæ within cells in the ground in July, and become perfect beetles about three weeks later, in August. Most of the beetles remain in their pupal cells until the following spring before emerging.

When sod is plowed down, the larvæ feed, during the ensuing year, chiefly on the decaying grass and its roots. Those larvæ which are in their second year of growth change to beetles, and do little harm, as they have plenty of food in the decaying sod without attacking the crop; but the young larvæ, which were only half-grown when the sod was broken, attack the crop of the second year after, because by that time there will be little else on the land for them to eat.

A short rotation, in which land is not left in grass for more than two consecutive years, will, to a large extent, prevent the ravages of wireworms. Early fall-plowing, with subsequent disking or re-plowing, is advisable on infested land. Some farmers have obtained good results by plowing twice in the same autumn, the first time in August, the land to be well harrowed in August, and then cross-plowed in September. By this means, the pupæ and freshly-formed soft beetles are disturbed in their pupal cells, and many of them destroyed.

But when all is said and done, the wireworm pest is a hard nut to crack. In the way of immediate remedies, little or nothing can be accomplished. Extensive experiments by Prof. Forbes, in Illinois, and Prof. Slighland, in New York, showed the uselessness of many recommended remedies, such as coating seed grain with poison, the surface application of salt and other chemicals, and even of a clean fallow to starve the wire-

worms out, the number actually increasing in one case, if we are not mistaken, in land treated as a bare fallow for several years. Sometimes, where oats are being destroyed in spots, it might be practicable to reseed those portions with barley, a crop which, as noted above, is less subject to injury than oats. For the most part, however, reliance must be placed on good farming, including a short rotation and the liberal use of clover seed, so as to secure meadows of clover, rather than of grass.

### PROSPECTS FOR LIGHT CROP OF CLOVER SEED

From present indications, the prospects for a good crop of red-clover seed are not at all bright in Ontario, where the most of the Canadian clover seed is produced. The late spring frosts, accompanied by very drying, cold winds, had the effect of practically killing all the old clover and wiping out most of the new seeding. Any pieces which were at all sheltered came through very well. The slow growth this spring and the lack of sufficient fodder for stock have forced many farmers to pasture meadows fully two weeks before a hoof should have gone on them. In 1905 there was a surplus of red clover seed in Ontario, and considerable stock was held over. But this did not make up for the shortage in 1906. A good deal of foreign seed from Chili and Europe was imported to make up the local shortage. Even what was imported has scarcely met the demand, and numbers of farmers are not seeding down with clover all that they had planned to seed, because they failed to buy before the seed supply became limited.

### SOME DANGERS IN USING FOREIGN SEED.

Some of the foreign seed imported into Canada this season, from the standpoint of size and color, has our seed beaten. But, judged from purity, most of our Canadian-grown seeds were much better. The weed-seed impurities most common in the foreign seeds were dodder, ribgrass, catchfly, bladder campion, cornflower, fool's parsley, wild carrot and rape seed. There were other weed seeds as well, but not so bad as many of those mentioned. Had all this imported seed been released by our seedsmen, there would have been but few of these weed seeds left in the good seed. Entirely too much of it went on the market very close to the minimum legal standard for weed seed, viz., five to 1,000, which allows of about 1,472 noxious weed seeds in one pound of red clover, or about 9,000 to 15,000 noxious weed seeds per acre, according to the quantity of clover seed sown, this ranging, as a rule, from 6 to 10 pounds per acre.

### WHAT TO DO.

It would appear to be the part of wisdom if farmers would keep every likely piece of clover for seed this year. The best quality of seed, judged according to size and color, is produced from pastured seed.

In growing pastured seed, the stock should not be left on the meadow later than the 20th of June, when a mower, with the cutting-bar tilted up pretty well, should reduce everything to the same level, especially where weeds prevail and the crop has not been eaten closely. Starting the second growth early, helps to escape the midge. If seed is produced after a crop of hay has been removed, it should be cut early in most seasons, at least when it is in full bloom. After the mower has reduced everything to one level, that is the time to weed out the ribgrass, as it can be quite easily seen for a few days and spudded up. If the seed has been produced after a hoe crop or bare fallow, which gives the best chance for producing clean seed, the weed problem is greatly simplified. Perhaps half a day spent in a ten-acre field at the right time, mowing with a scythe the weed on the killed-out and thin places, and pulling or spudding out such plants as curled dock, catchfly and Canada thistle, will enhance the value of the crop \$5 per acre, and produce, possibly, seed that would be absolutely free of weed seeds. This is what the producer of seeds should aim at. It is in his hands to produce clean seed, which will insure him the best market prices. Seedsmen continue to discriminate between pure and impure seeds to the extent of from 50 cents to \$2 or \$3 per bushel.

Every farmer who wishes may make use of the Seed Branch, Department of Agriculture, to have his seed tested for purity free of charge, and he will get his report back in three or four days, indicating to him to what extent his seed is pure, and what kinds and the amount of noxious-weed-seed impurities that may be present in his sample. The sample in every case should be representative of the bulk lot offered for sale. With these facts before us, it seems clear to the writer that good prices must prevail for No. 1 seed, and that, at the best, there will be only a limited supply. Let us produce in Ontario as much home-grown seed as possible this year. It is a safe proposition, and may pay much better than turning the crop into milk, mutton or beef. T. G. RAYNOR.

SECURING THE HAY CROP.

Editor "The Farmer's Advocate":

What was formerly the hardest work of the farm has now become quite easy by means of the work being done by machinery. The only trouble is, unless one has quite an acreage to take off, it would pretty nearly be as cheap to buy the hay as to buy necessary machinery, because machinery is not so very long-lived and the interest on the money invested and sinking fund for wear and tear is quite an item, and a man with a few acres of hay to take off will probably find it more economical to use more muscle and less machinery. Being pretty well south, and growing mostly clover, we usually start haying here about the 20th of June (but the Lord only knows what time we will start this year). We have a large acreage to take off, and as there is always a good deal of catchy weather, it necessarily takes some time, and we would rather have the hay cut a little too green than overripe.

We use a 6-foot mower for mowing the grass, and as soon as the hay becomes somewhat wilted and partly dried the tedder is started. At no time does a man need to be more of a "Johnny-on-the-spot" than handling hay, because the work cannot be laid out very far ahead, and a man needs to use good judgment to make good hay. Hay should be tedded before it is dry enough for any leaves to break off, but it should be wilted enough so that it will not tumble down too flat again, else the tedding does very little good. The tedder needs to be run fast, so as to turn it up as much as possible.

It is now generally recognized that hay is better put into the barn in a much greener state than was thought possible a few years ago. If it has no dew or rainwater on it, a good deal of sap in the hay is not going to injure it, and that helps us two ways, enabling us to get the hay in more quickly, and also avoiding danger of having it spoiled by rain. Rain coming on the hay while it is green does not do it much harm, but if a heavy rain comes after it gets dry (or even if it dews), it is bleached badly and will not make as nice hay or have the aroma. If rain comes on hay as green as it is fit to put in the barn, it would not injure it much. If, then, we are able to follow up our work, and put the hay in as fast as it should be, and as fast as it is dry enough, then we are not liable to get our hay injured much from rain. If a rain does come on it before it is quite fit to gather, then we start the tedder just as soon as it is partly dried and the rain has stopped. That gets the water out of it sooner, and saves the bleaching.

We have seen one man get practically all his hay spoiled during showery weather, and his next neighbor would get in his hay in very fair condition. Just the difference in the managing.

As soon as the hay is fit to gather we start the hay-loader, following the opposite way from which it is mowed. We do not rake the hay at all, as the loader will pick it up clean as a rake, and while one man and team would be raking it, the loader would pick it up nearly as quick and land it on the wagon, and no danger of it receiving rain when in the rolls; because, if it gets the rain in the winrow, then it is hard to get it dried out.

Of course, it takes a little more time to put a load on without raking, but when the hay is heavy, two men will find all they want to do to take care of it as fast as the loader can put it up. We often clear a field of hay without even taking a rake of any kind in it. We have no side-delivery rake, and do not want any. We have a two-horse rake, but use it very little. We are thus able to save on machinery. Our way of unloading hay at the Annandale Farm is different from any place else, and the description would be more interesting than to give information. As we have a 12-horse-power engine in the barn and the boiler at the creamery, when we put the hay in the barn we unload it by steam power, it being fixed so that the hay-fork rope that unloads it winds around one shafting pulley, the trip rope around another, and a rope fastened to the car to pull it back around another. The barn is so big and the amount of rope necessary is so heavy that a man can hardly pull the car back. This way of unloading by steam power is very handy, and takes but very little steam. A man stands up on one place and operates levers which throw the different pulleys in and out of gear with friction pulleys, so that he has control over all the ropes, and can put the hay up very steadily. Of course, haying under these circumstances is something of a picnic rather than hard work, but with so much machinery a man has got to be something of a mechanic and keep things in good shape. We put in more than 100 tons in one mow, and although it is put in pretty green, we never have any hay spoil. It always comes out fine.

As regards alfalfa, this seems to grow better on paper than it works out in practice. We have been working with alfalfa for several years, but have about concluded to give it up. It is hard to keep a field of it growing; spots winter-kill, and the hay made from alfalfa is not as well liked

by stock as clover hay. The chemist may say it is just what the cow should have, but then, if she don't think so, there is a "kink" in the reasoning. GEO. RICE.

WHY EARLY CUTTING PAYS.

Notwithstanding the late season, haying will soon be here, and it behooves the thrifty husbandman to prepare to make the best possible winter feed out of the all-too-scanty crop. One way to do this is to commence cutting the alfalfa and clover early. It is a great mistake to think a saving can be made in such a season as this by keeping the mower off to allow more time for growth. The exact opposite applies. Early cutting favors a heavy aftergrowth, which more than makes up any deficiency in weight of the first cutting. Particularly with red clover is this the case. Red clover is a biennial. Normally, the plant dies out after having produced a head of seed. Sometimes it doesn't, but such is its tendency. The nearer it comes to producing seed, the more likely is this habit to assert itself. The farther we keep it from maturity, the more likely is it to produce a good second growth. Growers of clover seed recognize this principle by pasturing until June 20th, rather than leaving the first crop for hay; and when they do leave it, they cut the hay as early as possible. Of course, their aim in this is partly to circumvent the clover midge, but they will all tell you that by far the best aftergrowth is produced by early cutting. Your wife can illustrate the principle in another way. She knows that the more promptly she plucks her roses or sweet peas, or small cucumbers, the longer she has roses, sweet peas and small cucumbers to gather. The point is that in handling plants whose habit is to die after once seeding, the further we keep them from seeding, the longer we keep them alive and the thriftier they will be. So, from the standpoint of weight alone, it pays to cut the first crop of clover early. Begin in time to finish at or very shortly after full bloom. By treating the aftermath in the same way, the clover may often be made to live over the second winter, and produce a good growth the following year.

QUALITY FIRST.

But there is a more important reason in favor of early cutting than the effect on the aftermath. The best quality of hay is secured by early cutting. Analyses show that the clover plant contains its greatest feed value, and especially the most protein, at the full-bloom stage. Afterwards an increasing portion of the substance is converted into woody fibre, and the stalks become more like straw. As the object of growing and making hay is to secure a fodder superior to straw, common sense dictates the wisdom of cutting early, and sparing no pains in the curing. This is even more important with alfalfa than with red clover. The following figures, giving the results of analyses of medium red clover at various stages of maturity, will be of interest in this connection:

Stage of growth	Fresh substance, lbs.	Protein, lbs.	Ether extract, lbs.	Crude fibre, lbs.	Carbo-hydrates, lbs.	Ash, lbs.
Buds formed	4210	539	116	1033	1731	260
Blossom one-third out	4141	460	106	1248	1379	226
A little past full bloom	3915	421	94	1260	1378	208

Below we give, also, the average results of three years' analyses of alfalfa at various stages. This work was conducted by Prof. Harcourt at the Ontario Agricultural College. This table gives percentage composition:

Stage of growth	Ash, per cent.	Crude protein, per cent.	Crude fibre, per cent.	Carbo-hydrates, per cent.	Crude fat, per cent.
Buds formed	8.59	19.11	28.18	38.89	4.28
Blossom one-third out	7.24	15.52	32.06	41.67	3.51
A little past full bloom	7.01	13.89	37.67	38.82	2.61

To understand this table, let us explain the terms. Ash is that part of the fodder which remains unconsumed after burning to whiteness at the lowest possible red heat. Ash is essential to the formation of bone. Crude protein, or protein, as it might be more simply designated, is the

muscle-former, and is, as a rule, the most expensive element of a ration. Crude fat is that part which is soluble in ether, and consists of a mixture of vegetable fats, such as oils, wax, etc. Linseed oil is a common example. Carbohydrates include the sugars and starches. Crude fibre is the woody portion. It is the most indigestible and of the least value. The most striking and important lesson conveyed by these tables is that as the plant approaches maturity the digestible protein decreases seriously, while the indigestible crude fibre increases largely, especially in the case of alfalfa. When with this fact we consider that ripe alfalfa clover very readily loses a large part of its leaves, and that a ton of leaves is worth for feed two or three tons of stalks, the wisdom of cutting early surely requires no further demonstration, even allowing for the fact that sappy tissue and "catchy" weather increase the time and labor of curing.

EARLY CUTTING PREVENTS RIPENING OF WEED SEEDS.

But there is yet another count. Early cutting greatly reduces the number of weed seeds matured. Every summer one may see on certain farms meadows where daisy, thistles, curled dock and other weeds stand unmolested, ripening seeds to spread trouble all over the farm and often to neighbors' property, or, perhaps, through the manure of a livery stable, to land miles away. A very important measure in keeping farms clear of weeds is to use the mower in the meadows before they go to seed.

Cut clover and alfalfa early, therefore:

1. Because the increased growth of aftermath will more than make up for any slight deficiency of weight in the first cutting, while many of the roots will retain their vigor and produce a second season's growth.
2. Because early cutting makes the most appetizing, most digestible and most nutritious hay, whereas late cutting produces a feed only measurably better than straw, of which we get plenty from our grain crops.
3. Because early cutting prevents the ripening of millions of pernicious weed seeds.
4. Because, by beginning early, we are able to take advantage of every spell of nice weather, to forward the work instead of dragging haying out into the harvest, to the injury of both grain and hay.

FOR MODERN METHODS OF HAYMAKING.

Editor "The Farmer's Advocate":

Haymaking involves more points where good judgment and practical experience are of advantage than any other crop grown on the farm. Up to within very recent years, it was also considered the most burdensome work of all harvesting. There are still some who have vain superstitions about haymaking, but are fast giving way to newer methods. They are either compelled by the scarcity of help, or persuaded by better reasoning and observation, that prime hay can be made on more modern principles, with much greater rapidity, less risk, and less than half the labor, with modern haymaking appliances. There are many essential points to consider. I shall briefly discuss them under the different heads suggested.

The time for cutting must be determined by the stage of the growth of the plant, and no date can be fixed. The beginning of July is usually the time in our district, some years a little earlier, others considerably later. I favor early cutting. We sometimes cut a clover field, or part of it, quite early, which might be termed the pasture field. This, when well cured, makes excellent hay, comes in very convenient when pasture becomes dry, and is a most valuable substitute. The clover plant at this stage has lots of vitality, throws out fresh growth very readily, and soon gives an abundance of fresh pasture. This part should always be considered in any cutting, either for pasture or aftermath. I not only favor early cutting for the reasons already stated, but it makes a better quality of hay if cut before it gets hard and woody.

Clover should be cut when nicely in bloom. Experience has taught us never to sow clover alone. We always mix some timothy with it. Clover may get winter-killed or damaged, and, without the timothy, would leave a blank for weeds. The admixture of timothy also increases the bulk and does not lessen the value as a food. We cut when the clover is ready; the timothy will interfere very little. When a considerable portion of timothy is intermixed, the medium course has to be pursued. Timothy should not be cut too late, as it gets too hard and fibrous, which largely discounts its feeding value. We practically handle the whole crop with machinery, from the time it is cut in the field until it is stored in the barn, and the more quickly we can get it into the barn after it is ready, the better I like it, with the exception of lucerne or alfalfa. This crop has to be very carefully and differently handled. It should be cut when only partially in bloom, or it becomes very fibrous and hard, and even dangerous, causing derangement of the digestive organs; but, where well saved, makes the most valuable hay

we can produce. I favor cutting so that it will wilt enough the first day that it can be raked into windrows early enough the second day to put into cocks, where it is left until it is cured, usually several days.

We use a mower with six-foot cut. The advantage is twofold, rapidity of work, and the grass is never doubled; it falls where it stood, and dries out quicker than with a narrower cut.

I prefer cutting when the dew is off, but don't adhere strictly to the practice when rushed. With heavy, sappy clover, it is well to run the tedder over as soon as sufficiently wilted. I might say, however, I never used a tedder very much, but use the side-delivery rake instead, which really does the work of the tedder. I favor the reel rake, which turns the hay completely over and exposes the uncured parts to the sun and air, which cures it very rapidly, and puts it in nice windrows to follow with the loader.

We have frequently, in good weather, when the grass was not too heavy, cut in the morning and hauled into the barn the same day. This, however, cannot be done with a heavy crop of clover, but I have done it with heavy timothy. When we get into rushing things, we usually keep enough cut to keep hauling in as soon as the dew is off, always putting in windrows as soon as ready to rake, to prevent leaves from getting too dry or bleached by the night dew.

The main secret in making good hay is to have it free from dew or any foreign moisture before hauling in. When two-thirds of the hay is dry, it is safe to start to mow away. We use the hay-loader, and consider it invaluable and a great labor-saver. The side-delivery rake and hay-loader must go together to work to advantage. We straddle the windrow. The horses will soon learn to follow it, and two men will load nearly as fast as the horses walk, only stopping occasionally. For hauling in hay or grain, for convenience or handiness, there is, to my mind, nothing to equal the flat-bottom rack. It is like working on a barn floor, and a larger and much tidier load can be built. For stowing away in the barn, the horse fork, slings, or rack-lifter, are in use in this section. We use the lifter, and prefer it to any other. The load is lifted to the top of barn, then the whole load dumped at once with the horses, or unloaded with the horse fork. Care must be taken to keep the mow level, or else the hay well distributed where dumped. We usually throw a little salt on the hay every few loads, especially when hay is a little damp; this will keep it from molding.

I have practiced different methods of securing the hay crop, all of which have commendable features, but I am fully convinced that, with a full set of haymaking tools, we are putting up an equal if not superior quality of hay to the old, slow process of curing in the cock, taking it on an average from one year to another, with much greater ease, far less risk, and less expense. Even if I could get plenty of help, I would not exchange for the old method.

A. C. HALLMAN.

#### LOW-WHEELED, WIDE-TIRED WAGON FOR HAULING.

Editor "The Farmer's Advocate":

Regarding the cutting, curing and storing of hay, I think no hard-and-fast rules can be laid down, as much depends on the conditions of weather, crop, etc. However, cutting is often begun too late; especially is this the case where there is a large quantity to handle. It should be commenced when in full blossom, and, if possible, finished before any of the seed will shell or the fibre of the plant become woody. The date of commencing varies with the season, but in our neighborhood clover is ready usually about July 1st, and timothy a little later. With clover, I find the best way is to cut as soon as dew is off, follow in two hours with tedder, and cock up before dew falls, and in about two days haul in. It may be necessary to open out the cocks for a short time before hauling. With timothy, we often follow the same plan, with shorter time given for curing. But when the crop is largely composed of timothy, if weather is fine, we cut any time when dew is off, follow with tedder (twice if crop is heavy), and next day go on it with loader, without raking, using a loader which clears an eight-foot swath, and we think the greater amount handled in this way will make up for loss sustained by lying over night; and, when crop is light and season advanced, it can be hauled in the day it is cut. Alfalfa is not grown here yet. I have put in half an acre this year.

I use a five-foot-cut mower, but larger would be better. Our wagon has low wheels, with five-inch tires. I find the low wagon a great advantage in pitching, and, with wide tires, we can take much larger loads, without cutting up the fields or lanes.

In short, the importance of securing the hay crop in its best condition, and the scarcity and expense of hired labor, make it necessary to use up-to-date machinery and methods; and in bringing this about, I know of no better agency than "The Farmer's Advocate."

Glengarry Co., Ont. W. E. McKILLICAN.

#### COTTON VERSUS SILK.

Editor "The Farmer's Advocate":

The time at which I commence making hay is entirely governed by the growing crop. Should the bulk of it appear to be ripening for the mower at about the same time, we must cut some earlier than at its best, so as not to have the later-cut overripe. Of the two evils, I prefer the former. What is lost in weight of the first cutting, is more than made up by a second cutting of aftermath or for seed.

I usually commence the Monday nearest June 25th. This year we shall be much later, though I have an unusually promising crop of clover. In my neighborhood haying is generally delayed many days after I have commenced, perhaps for the reason that mixed timothy and clover is the main crop, while I just take one crop of clover, the sward being afterwards plowed up for corn. I have about 25 acres, in two fields, which are devoted to timothy alone (a little alfalfa being sown with the timothy seed). About four years one field yields big crops. It is then cultivated for four years, and the other field takes its place. This hay is, of course, for the horses.

To state the best practice in making the various kinds of hay, would be a big order; a book's cover could scarcely hold all your query suggests. I simply reply, there is no royal road to making hay. One cannot write out a prescription like unto a physician's, with the druggist to fill the order; neither are the charlatan's prescriptions to be followed. In every paper you will find, "I cut my hay after the dew is off, rake up, and cock at night, and haul in next day." That man either is very fortunate, or he cuts his hay so late that it requires no curing.

My experience is not limited. When at N. Y. Mills, I had up to 400 acres of meadows, and no formula that was ever devised could have gathered that hay, unless brains were used. It is the same on 10 acres as on 400. Every day's weather is to itself, and has to be studied. Hence, I say, how much more difficult it is to cure clover than it is for a doctor to cure a disease with which neither storm nor rain may interfere.

Red clover we usually turn by hand, according to the weather, then get into cock. Timothy or mixed hay require but little attention. Alfalfa, or lucerne, as I prefer to call it, I have grown since 1863 on the sands of Long Island, on the Utica clays (N. Y. Mills), and in two places in Middlesex County, and yet they say soil inoculation is necessary. Just sow a little seed and try for yourselves; ignore the inoculation theory. For hay, cut if possible when the first indication of flowers appear; cut, and cock next day in very small cocks. If not sufficiently cured, exercise the judgment I have tried to instill into this letter. There are times when this crop must be cut, but it requires a lot of balanced brain-power to make a success, outside a few acres, in Ontario. The ground is often too damp and cold, but when it is properly cured and got into the barn in perfect order, no crop grown on a Canadian farm can be more satisfactory. Three cuttings a year for three or four years with one seeding; and nothing on the farm but dogs and cats refuse to eat it! Pigs and hens eat it; the cows and calves are spoiled, after eating it, for other hay. And this depends entirely upon the judgment in curing—ordinary mower, rake and wagon rack.

For the making of prime quality of hay, as you suggest, I would certainly recommend the tedder. For over forty years I have used these, and by their aid I have been able to get the half-made hay into cock, when without their aid I could not have done so.

Regarding the making of prime hay, I have discarded the hay loader. I put all my partially-cured grass into cock, and pitch by hand. It is a more costly process, but the results more than pay the extra expense entailed. To get hay together in the mow, where the matter of cheapness is a consideration, let the timothy crop nearly ripen; then one may cut in the morning, use the loader in the afternoon, and at night sleep the sleep of one who has accomplished a great day's work—cleared so many acres of what?—hay or hay straw? There is just as much difference in hay as there is between cotton and silk; each require separate treatment, of course, but it is the haymaking of each that pays. R. GIBSON. Middlesex Co., Ont.

#### WHEN TO CUT ALFALFA.

The time to cut alfalfa is when it has begun to bloom, the lower leaves have begun to turn yellow and drop off and buds are starting out from the base of the stems. Cut then, for it has in it the greatest amount of nutrients. Allowed to stand longer, the stems become woody, some of the leaves are lost, and the hay is not so palatable, nutritious or digestible. If cut too soon, before the buds have set on the stems, sometimes the succeeding crop is seriously injured, for what reason is not yet known.—[Joseph E. Wing, in Farm Science.

#### HAYMAKING: CLOVER, ALFALFA, TIMOTHY.

Editor "The Farmer's Advocate":

In making hay, I prefer early rather than late cutting, quality rather than quantity. Clovers should be cut from June 26th to July 5th, varying somewhat according to soils and seasons. Timothy should be cut just as the second blossom is going off. Several of my neighbors cling to the old custom of coiling their hay. This, I think, is a great waste of time and quite unnecessary, except under certain conditions. I prefer to cure alfalfa in the coil, but do not pretend to coil clover or timothy, unless there is rain coming and I have more raked up than can be got in. In that case, I put someone at coiling, if it is possible, without stopping the drawing. I think the safest and best plan (early in the haying season) is to cut early in the morning just about what can be handled in an afternoon. Right here is where very many make mistakes that are the cause of damaging a lot of hay. I know men who will cut down at one time what it will take two or three days to draw. About an hour after hay is cut it should be tedded, and, if it is extra heavy, ted it over again immediately; then ted it again early on the following morning. Don't leave it until the dew dries into the hay and the tedder knocks the leaves off, but ted the dew off the hay. This same rule applies if it rains; ted as soon as the rain is over and shake the water off. This largely prevents it from coloring the hay, and it loosens up what has been somewhat packed by the rain and allows the wind to get through it, and thus it dries very quickly. As to saving alfalfa, which is the best hay of all, where it can be grown successfully, I cut it early, before it gets woody, and ted it right after cutting and again early next morning, and as soon as the dew is well dried off, rake and put it up into fair-sized coils and leave it there (it will settle, so that a shower will do scarcely any harm), then go right along saving the other hay. I can then draw a load or two of alfalfa at any time when waiting for the other hay to cure or for the dew to dry off, or perhaps after the dew has begun to fall (you see, the eight-hour day doesn't apply here).

The tedder is the best tool there is for making good hay, and the hay loader is the best tool for saving it. The side-rake is very convenient, but I am of the opinion that they are too costly for the time they will last. The horse fork is the only labor-saver that we have at the barn. We spread every load in the mow the same as if pitched by hand. By so doing there is less danger of having musty hay than if the fork loads are dumped by means of a pole or any other device. If hay is evenly spread, it can be put in much greener than if allowed to remain in forkfuls.

To save clover or timothy, we do just the same as with the alfalfa, except that we commence to draw in, instead of coiling. Of course, all those things depend largely upon the wind and the heat of the sun and the stage of ripeness. As hay gets more matured, it can be cut in the morning and drawn in the afternoon. I always put about three quarts of salt on each load of hay after it is spread in the mow; it not only assists in curing it, but increases its relish to the stock. Middlesex Co., Ont. R. H. HARDING.

#### AN EXPERIENCE WITH WOOD ASHES.

There is a shameful waste of good fertilizing material going on behind many Canadian farm homes in the form of wood ashes, while in other cases almost equal sacrifice is made by trading them to the ash-buyer for a bar of soap. We were interested the other day, in perusing the pamphlet of an exporter of ashes, to notice what he had to say for the benefit of his American customers about his own experience in using ashes to build up a worn-out piece of land. It is a very striking result, but not more striking than several we could cite from our own observation:

"There is a saying that a certain doctor, in his practice, used to try his medicines on his wife, and, if they did not kill her, then he used them for his patients; so I will give here my experience in using my own medicine, hardwood ashes, on my own land.

"In April, 1896, I bought 20 acres of land, at \$45.00 per acre. This land lay along a leading road within the Town of Napanee, Ontario. The party from whom I bought had had some difficulty in renting this land for enough to pay the taxes. The land being within the town, the taxes were high, and several of my neighbors told me that I would have hard work to make the interest and taxes on my investment. This land was seeded down to meadow, but it was so run-down that it cut only about ten tons of hay the year before. I broke it up and tried to raise a little stuff, but the whole crop the first year was not worth the labor I put on the land. However, I got rid of a lot of foul stuff, and cleaned it up, I thought, in good shape. I seeded down half of it in the fall with rye and timothy, and top-dressed it with about four tons of hardwood ashes to the acre. In the spring, as the snow went off, I sowed about ten pounds of clover seed per acre. The balance of the land I ridged up in the fall, and

TIMOTHY.

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in the winter top-dressed it with ashes, spreading them broadcast from the sleigh before the snow got deep. In the spring I sowed it with oats and timothy seed, and that season we thrashed 738 bushels of oats and 281 bushels of rye. Now, I will admit that it cost some money to get this land up, and the outgo was a great deal more than the income for the first two years, but the eight following years I have had, so to speak, hay to burn. The fact is, we cut all the hay we could care for, and my neighbors, who told me that it would not pay the interest and taxes, have had to admit that it did pay, and paid well. Last April I sold this piece of land for \$1,900 cash. The man who bought it got a bargain, as he cut and pressed over 40 tons of hay, and you will remember this land had been seeded down eight years. The fact remains that, for renewing run-down land, it is doubtful, in my mind, if any fertilizer will compete with good, household, unleached hardwood ashes when the ashes are used liberally. I am willing to admit that they are somewhat slow in responding, as it takes a long time for them to dissolve in the soil, and for that reason I advise using them liberally—that is, give the land a good dressing, and the outcome is that you have lasting results."

## Some Views on the Green Cheese Question.

In the best interests of the dairy industry, what is the briefest time cheese should be allowed to remain on the shelves before boxing?

What, in your judgment, is the best way of stopping the shipment of green cheese?

The foregoing questions, submitted to leading dairymen and cheese-buyers, are discussed by several correspondents in this issue. Their letters make interesting reading.

### KEEP CHEESE TEN DAYS IN FACTORY.

Editor "The Farmer's Advocate":

In reply to yours, re green cheese, I might say that we in Campbellford District are not such sinners in this regard as the Brockville and East are. We think that 10 days are as young as they should go out of the factory. We also think that the different cheese boards, by adopting rules governing how close up cheese should be sold, and agitating the question, would do a great deal towards stopping it. ALEX. HUME.  
Northumberland Co., Ont.

### SHIPMENT AND CURING OF CHEESE.

Editor "The Farmer's Advocate":

"In the best interests of the dairy industry, what is the briefest time the cheese should be allowed to remain on the shelves before boxing?" In reply to such a question, I would say that a great deal depends upon the purpose the cheese is designed to fill. For instance, I have upon several occasions been asked to score experimental cheese, made for the purpose of determining this point. One case, in 1906, in an experiment made by the United States Government of about 300 samples, in which case each batch of cheese, after being made, was divided into three sections, the first section going direct from the hoop into the cold-storage, the second section being allowed to remain in the factory for a week and then going into cold storage, and the third section being allowed to remain in the factory two weeks and then going into cold storage. All these cheese were paraffined, and were scored by two other judges besides myself; and, invariably, the cheese securing the highest score were those going direct from the hoop into the cold-storage room. I have had the privilege of attending several other scoring contests of the same nature, and believe that slow, cool curing is the life of the cheese. I am, therefore, of the opinion that when there is a scarcity of cheese in England during the spring, and early cheese here are properly made for quick curing, that the fact of starting them upon their journey to England within a few days after the time they are made, is not necessarily detrimental to the quality of the cheese. I will say, however, that in no case should cheese be shipped until the rinds are firm and dry, which, I think, cannot be accomplished short of from two to three days in the curing room. The facilities provided in the way of cool-curing rooms and refrigeration in transportation are largely responsible for the improved reputation of Canadian cheese during the past few years, and this all means that cheese have been arriving in England in a better condition than they did hitherto.

Of course, the question of shrinkage is a very important one, which I have not touched upon, and is altogether another consideration. I am aware that the Dairy Commissioner at Ottawa has taken up this question of shipping green cheese quite vigorously this spring, but so far, I am not aware of a single instance that has been brought forth to prove that the shipping of cheese green has damaged the quality of the cheese.

Park Co., Ont. I. W. STEINHOFF.

## THE DAIRY.

### PERFORMANCE BEFORE FANCY FORM.

Writing of two heavy Ayrshire importations by Messrs. R. Hunter & Sons and R. R. Ness, "Scotland Yet," in his letter in this issue, notes the gratifying fact that these animals were "purchased for dairy purposes, and with little regard to 'fancy' points. The Milk-record scheme of the Highland & Agricultural Society, in spite of adverse criticism from various quarters, has proved of high educative value. Many breeders are beginning to see that it is much better to know the milking powers of their cattle than to be assured that they have a proper outline of udder and teats. What the ultimate result of the milk-record scheme may be, remains obscure, but the benefits accruing are so manifest that the use of a record is bound to become more and more general. The most profitable cattle will be those that are proved such on evidence produced."

This is good news. The Ayrshire cow has a large place to fill in Canadian dairying. Her hardy

constitution, her excellence as a grazer, her comparative freedom from teat and udder troubles, and her capacity for yielding a large flow of milk of medium percentage of butter-fat, are qualities which are deservedly highly esteemed. Unfortunately, some of the leading Old Country breeders set up a fad of form and fancy points, and actually set a premium on moderate-sized, though well-balanced udders, with small, corky teats. While many of the dairy herds of Ayrshire retained the old-fashioned milking strains, with good-sized teats, the standard set at the leading shows was all for beauty, form and "points," rather than performance, and many of the cattle brought out to Canada were of this modern character, so much so as to threaten the reputation of the breed among practical Canadian dairymen. It is a matter for hearty congratulation that the tide has turned, that the Scotsmen are earnestly addressing themselves to the task of breeding for milk, and that our enterprising Canadian importers, responsive to the demand, are selecting their purchases with a shrewd eye to utility, and bringing out some of the very pick of the breed. With such a class being imported and distributed, there is no fear of the future of the Scotch dairy breed on this side of the water.

### CANDID COMMENTS ABOUT GREEN CHEESE.

Editor "The Farmer's Advocate":

Notwithstanding all the advice to the contrary which has been given to salesmen of Canadian cheese, they have continued to sell the stuff, and have trusted in Providence that all would be well in the end. I am reminded of one of Lincoln's stories: He says that an old woman, whose horse ran away, in giving an account of the occurrence to some friends afterwards, said, "I trusted in Providence till the britchen broke, then I didn't know what on airth to do!" Judging from the hysterical appeals which one reads in the press nowadays, one would be inclined to think that the "britchen" of the Canadian cheese business was about to break.

Let us look at this matter in a common-sense way. In the first place, who will define "green cheese"? It seems to the writer that the terms "green" and "ripe" cheese are very much like the terms "youth" and "old age," as applied to the human organism. Who knows where one leaves off, the other begins? Did anyone ever discover the moment when they began to get old? Has anyone determined when cheese ceased to be "green"? Men are in the dairy business in order to make the most profit possible, and can you blame factory-owners or salesmen for selling as much cheese as possible and as quickly as possible when the price is 12 to 12½ cents per pound, but liable to tumble to from 8 to 10 cents per pound at any time? When we have such a condition as we have had during the past season, the common-sense plan is to use about double the amount of rennet ordinarily used in manufacturing the cheese, and not over 2 pounds salt per 100 pounds curd, or per 1,000 pounds milk. This combination produces a cheese which ripens quickly, and by the time it reaches the consumer in Great Britain it will be ripened much more than the average Cheshire cheese found in the warehouses of Manchester, Liverpool and London. Our farmers have to compete, during June and July, with the Cheshire-cheese makers of England, who do not hesitate to push their goods on the market as rapidly as possible early in the season, when prices are likely to drop. Later in the season the proposition is somewhat different, because we are then making cheese which are not likely to be consumed for three to six months. If we sift the matter, we shall find that most of the howling about green cheese originated among a few buyers who lost a few pounds per box of cheese when they came to resell them. This has been echoed throughout Canada, until many people are beginning to believe the fairy tale about the moon being made of "green cheese." These people seem to forget that in every case it is a month or more after the cheese leave the factory in Canada before they reach the consumer in Great Britain. We may safely leave the matter in the hands of the Canadian cheese merchants, who know the consuming public in the Old Land better than do any other persons in Canada. They have studied every humor of the English cheese merchant, and know his pulse beats and purse throbs to a nicety.

My candid judgment of the situation is that the Eastern Ontario manufacturers have been able to put good cheese on the markets from small, poorly-equipped factories, that are manned by

makers not nearly equal to the skilled makers in large factories both East and West, largely because the cheese are shipped weekly from the factories and are marketed or sent to cold-storages in Montreal or elsewhere, where they are safe. Personally, we look for the time when the excellent facilities now offered by Provincial and Dominion Governments will be taken advantage of by the dairymen of Canada, and that these cold-storages will be so convenient and cheap that the people will use them and send their dairy products to them weekly, where they will be safe. A worse policy than that followed by some of our Western Ontario cheesemakers, I can scarcely conceive of, viz., that of holding cheese during hot weather for weeks in a temperature that is ruinous to the quantity and quality of the cheese.

There is one more point, Mr. Editor, and I am done. Who has demonstrated that green cheese is less digestible than ripe cheese? Has anyone made any experiments on this point? If such experiments have been made, we have not heard of them. For some time we have been desirous of making an experiment on this question, but no one has volunteered as a subject. If any of your readers would offer themselves, I think we can arrange the rest at the College. In this connection, why should the State hang men for crime when they might be used for such experiments as we have indicated? We are quite serious on this matter, as there are so many questions that can be settled only by experiment on the human organism, and no one will volunteer for the work. A few of our students have volunteered for "safe" experiments on the effects of preservatives in butter, breakfast foods, etc., but we should like to make some tests where the results may be not altogether safe. H. H. DEAN.

Ontario Agricultural College.

### THOSE WHO GET PEOPLE INTO TROUBLE, ETC.

Editor "The Farmer's Advocate":

The information you are asking for you should be able to get from the exporters in Montreal. Those are the men who established the shipping of green cheese, in the spring of 1903. I know of a number of cases in the spring referred to, when the Montreal cheese-buyer would have the country buyers go to the factories and have the factorymen ship their cheese from the hoops, and the factorymen in this Eastern section have been following that practice every year since. The cheese merchants in Montreal will not refuse green cheese if they can see a fraction of a cent in handling that class of goods; in fact, I know of cases where buyers have taken green cheese, and put those cheese in cold storage on speculation. My idea is the men who established the practice of shipping green cheese are the men to look to for the remedy. WM. EAGER.

Dundas Co., Ont.

### CHEESE - BUYER CAN DO MOST.

Editor "The Farmer's Advocate":

I do not think cheese should be shipped less than from eight to ten days old, and then made with a view to quick ripening and for immediate use. Where dairying is carried on extensively, there will be of necessity considerable quantities of early milk which must be made into cheese and butter. To compel a proper curing, the buyers, as representatives of the trade, can do the most, viz., by refusing to ship the very green cheese.

Oxford Co., Ont.

M. S. SCHELL.

GARDEN  ORCHARD.

## ONION BLIGHT OR MILDEW

(Peronospora Schleideniana).

Prepared for "The Farmer's Advocate" by W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

In various parts of Canada onions have suffered during the past few years from the attacks of the onion blight, which, in some cases, has caused serious loss to vegetable-growers. As this disease can be prevented by thorough spraying with Bordeaux mixture, all vegetable-growers should be aware of the fact. The onion blight is a parasitic fungus which spreads by means of spores in summer, and is carried over winter by what are known as oospores. These oospores are formed within the leaves, and when these are removed in the field or fall off they remain over winter there, and re-infect the young plants in the spring or early summer. It will be readily seen that it is important, where the disease is troublesome, to remove all foliage from the field in the autumn and destroy it. Where possible, the onion should not be grown two years in succession in the same field; and, if possible, two years should elapse, as these oospores retain life for two years. When the disease infects the onion plants by means of the oospores in early summer, the mycelium grows through the plants, feeding on the juices, and the first outward indication of the disease is a violent discoloration of the foliage. In a short time the leaves turn yellowish and fall off, and give the plant the appearance of being scalded. When the disease is quite apparent, but before the leaves dry up, the latter have a downy look on the surface in places. It is at those points that the spores are being given off from the tiny stalks which have protruded from the mycelium within the leaf. These spores spread rapidly, and if conditions are favorable, will germinate in half an hour and re-infect other leaves or plants. These spores are so numerous that it does not take long for a large area to become affected. It has been found that the disease spreads most rapidly in damp, warm, close weather, the spores germinating very rapidly under such conditions. In low-lying ground the air is moister than over elevated land, and the disease is usually worse there.

Sometimes the disease will be checked before it has done much damage, owing to a change in weather conditions, but it may break out again later on. Every leaf which is destroyed weakens the plant and lessens the size of the onions, hence it is very important to check it at the very start or use preventive measures.

Once the spore has germinated and the disease entered the leaf, it is not possible to reach the mycelium by spraying, hence it is necessary to spray early enough to kill the spores before they germinate. Spraying should be begun towards the end of June, and the plants kept covered with Bordeaux mixture until the end of the season. If the disease appears before spraying has been done, spray as soon as possible. As the leaves of the onion are smooth, it is necessary to put the mixture on in as fine a spray as possible, so that it will adhere well.

## LEGAL SIZE OF FRUIT BASKETS.

The May Fruit-crop Report of the Fruit Division, Ottawa, calls the attention of fruit-growers to Sub-section 2, Section 326, of the Inspection and Sales Act, dealing with fruit baskets. As amended at the last session of Parliament, this reads:

2. Every basket of fruit offered for sale in Canada, unless stamped on the side plainly in black letters at least three-quarters of an inch deep and wide, with the word "quart" in full, preceded with the minimum number of quarts, omitting fractions, which the basket will hold when level-full, shall contain, when level-full, one or other of the following quantities:

(a) Fifteen quarts or more;  
(b) Eleven quarts, and be five and three-fourths inches deep perpendicularly, eighteen and three-fourths inches in length, and eight inches in width at the top of the basket, sixteen and three-fourths inches in length, and six and seven-eighths inches in width at the bottom of the basket, as nearly exactly as practicable, all measurements to be inside of the veneer proper, and not to include the top band.

(c) Six quarts, and be four and one-half inches deep perpendicularly, fifteen and three-eighths inches in length, and seven inches in width at the top of the basket, thirteen and one-half inches in length, and five and seven-eighths inches in width at the bottom of the basket, as nearly exactly as practicable, all measurements to be inside of the veneer proper, and not to include the top band: Provided that the Governor-in-Council may by proclamation exempt any Province from the operation of this section.

(d) Two and two-fifths quarts, as nearly exactly as practicable. 1 E. VII., c. 26, s. 5.

## BROWN-TAIL MOTH CONVENTION.

The convention called by the Nova Scotia Department of Agriculture, at Annapolis, on the 7th inst., to consider the question of the brown-tailed moth, and what measures ought to be taken to stamp it out, showed very plainly the interest which is being taken in this part. No subject within the writer's experience, covering the past ten years, has ever aroused such widespread concern as the announcement that the dreaded brown-tail moth had gained a foothold in Nova Scotia. One hears of nothing else.

The convention opened with a report by Prof. Cumming of the various steps which had been taken by the Government in the matter. The effort had been first to find how largely the insect had spread, to outline the infested district, and, second, to do everything possible in the short time at command to arouse public interest in the threatened danger. This had been done by sending out inspectors, who held meetings, visited schools and farms, everywhere urging the destruction of the nests in which the insects pass the winter as partly-grown caterpillars, about a quarter of an inch long. To further encourage the destruction of these nests, a bounty of 3 cents per nest was offered through the schools for all which should be brought in and delivered to the teachers. In this way alone considerably over one thousand nests have been destroyed.

Following Prof. Cumming's general report, the different inspectors, including Mr. G. H. Vroom, Dominion Fruit Inspector for Nova Scotia, Prof. Smith and Sears, of the College, and two graduates of the Agricultural College, Mr. Guilford B. Reed, of Berwick, and Frank Brady, of Canning, reported on the territory they had each examined. The area so far known to be infested is as follows: In King's County scattering nests have been found as far east as Port Williams, Canning, and Blomidon, but not more than a dozen nests, all told, have been found in that County. Passing into Annapolis County, they become more abundant as one goes west, several nests having been taken about Middleton, Lawrencetown, Bridgetown and Annapolis Royal. In the vicinity of Deep Brook, near the Digby line, some three hundred nests were destroyed. From there west, throughout Digby County, the insects are widely scattered, and in some sections very abundant. As many as nine nests have been found on a single small plum tree, and Mr. Reed reported collecting thirty nests in ten minutes in one orchard. So far as known, the insects have not yet crossed the Yarmouth County line, though they are very close to it.

What complicates the situation very seriously is the character of the country infested. Practically every farm has a few fruit trees on it, and everywhere along the roadsides and in the woods are innumerable seedling apple trees on which the insects are found. And as the orchards are of very little importance, they receive but little attention, and no spraying is done. Fortunately, the insects have so far confined themselves almost wholly to the fruit trees, only one nest having been found on a red maple and one on an oak. This, of course, makes their detection and destruction far easier.

The interest aroused by the educational campaign, and by the bounty, has caused a thorough search to be made in most sections, with the result that in many localities a careful inspection by the College authorities later has revealed scarcely a nest. But in other sections a good many nests still remain, and as the caterpillars are now out of the nests almost altogether, it is proposed to put two spraying outfits in the field at once to go over the infested district where spraying is not practiced, and destroy as many as possible of the remaining caterpillars before they are done feeding and ready to transform into the pupa stage. These spraying outfits will be provided with regular spray casks for use on roadside trees and others which can be got at with the wagon, and with small bucket pumps, which may be carried to out-of-the-way trees in steep, rocky places, which, unfortunately, abound in the infested district.

The Convention was fortunate in having Dr. Fletcher, from Ottawa, present, who discussed not only the brown-tail moth, but many other insects, urging the importance of spraying and the seriousness of the present crisis.

The Deputy Minister of Agriculture of New Brunswick, Mr. Thomas A. Peters, was also present, and gave some valuable suggestions on the subject. He was accompanied by Mr. Wm. McIntosh and Mr. W. H. Moore, who were preparing to act as inspectors in case of an outbreak in New Brunswick.

The Convention, which was well attended by representative men from all parts of the Annapolis Valley, and from as far West as Yarmouth, passed resolutions endorsing what had been done by the College authorities, requesting them to continue the work until legislation can be passed covering the case, and expressing appreciation of the seriousness of the threatened danger.

E. C. SEARS.

## SPRAYING IN EARNEST.

Interest in spraying is yearly becoming more apparent, says the Fruit-Crop Report of the Fruit Division, Ottawa, A. McNeill, Chief. A decided increase is noticed in the number of orchards sprayed this year. Growers generally seem to have awakened to the fact that there is no other investment on the farm that pays so well. One Nova Scotia correspondent writes: "There is a great deal more spraying done here than ever before. Nearly two hundred spray pumps have been sold to farmers here this spring, and are being used thoroughly." Even in the old fruit sections, where spraying has been practiced for many years, greater interest is being shown. At St. Catharines, the co-operative association reports the distribution of over fifty spraying outfits. "It can be assumed with the utmost confidence," continues the report, "that outside of sections infested with the San Jose and oyster-shell scales" (the latter, by the way, is not to be compared in the same class with San Jose.—Editor), "three thorough sprayings with properly prepared Bordeaux mixture—first, when the leaf buds are expanding; second, just after the petals fall; third, a week to ten days later—will control seventy-five per cent. of the insects and fungous diseases attacking the apple."

## BLACK ROT OF THE TOMATO.

Black-rot disease, writes W. T. Macoun, Horticulturist, Experimental Farm, Ottawa, did much damage to tomatoes in the vicinity of Ottawa in 1906, a large percentage of the fruit being rendered useless in some plantations. When the disease begins to spread on the fruit, small, roundish spots may be seen usually towards the blossom-end. These rapidly increase in size, and the tomato becomes discolored and rotten at the parts affected. The spores are given off from dark, mould-like masses on the surface of the fruit, and these, being scattered, re-infect the fruit. The disease also attacks the leaves. The tomato rot can be controlled by spraying with Bordeaux mixture, beginning in the hotbed, and keeping the plants covered until the fruit is nearly ripe.

## POULTRY.

## TURKEY INQUIRIES FROM AN AMATEUR.

Editor "The Farmer's Advocate":

I am trying to raise turkeys this year, but am rather inexperienced, and would like to have a few questions answered. Some of my little turkeys, when they were taken out of the nest, seemed to be very loose in the bowels; they had never been fed yet. I gave them all a black pepper, and their first feed was a boiled egg, with a little bread squeezed out of sweet milk. I sprinkle pepper just a little on their feed. I give them onion tops and lettuce; also sweet milk to drink. Sometimes I boil the milk, with some pepper in it.

Is curd made out of sour milk good for them, and should I give them sour milk to drink?

A neighbor of mine feeds her turkeys a proprietary poultry feed. Is it good for them?

There are no lice on them, but would it be all right to dust them occasionally with insect powder, or would sulphur be better?

My neighbor makes a cake for her turkeys out of 2 cups corn meal, 3 cups shorts, 1 teaspoon soda and enough sour milk to make a batter, and feeds them this all the time, with the poultry food sprinkled over it.

What should I do for them if they get diarrhoea?

Hastings Co., Ont.

SUBSCRIBER.

It is quite natural for the first droppings of young turkeys to be more or less watery. I know of no reason or advantage to be gained in giving pepper in any form to young turkeys at any time; otherwise, what has been given is all right. Many successful breeders feed curd made from sour milk, with no ill effects, and sour milk, if given once a day for drink, will do no harm. If you are certain there are no lice upon them, they will not require dusting with insect powder or sulphur, but a dust bath should be provided if they cannot get to a dry, dusty spot themselves. However, lice upon turkeys are hard to see, and are generally present upon young poults, unless they were driven off the hen just before hatching. The most successful turkey-breeder I know rears her young poults each year upon a cake similar to the one here described. However, she adds no poultry food of any kind, and I don't consider it necessary. It must be remembered that the food is not everything, and that besides being fed regularly, they will require to be kept from brooding upon the same spot two or more nights in succession. Provide fine grit, and do not let them get sour, fermented food, and I think you will not lose any with diarrhoea. I would especially caution you not to make sudden entire change of either food or drink. If you decide to make any change, do so gradually.

Simcoe Co., Ont.

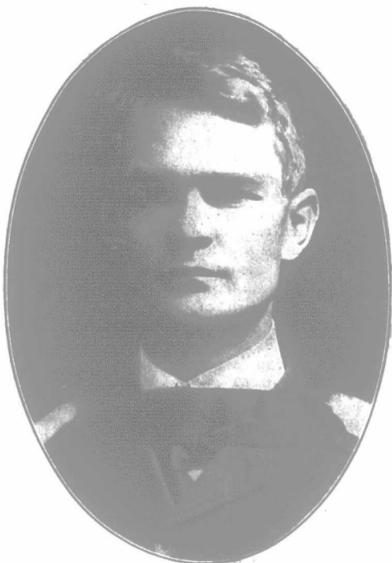
W. J. BELL.

**THE HOPPER SYSTEM IN MANITOBA.**

Editor "The Farmer's Advocate":

For raising young chickens, we have found the self-feeder beats all other ways. We can raise nearly twice as many chicks this way, and find they are, if anything, larger in the fall and better matured. We are using self-feeders this year on week-old chicks, and from that age we keep them constantly before them, and I must say I never saw larger-boned, healthier chicks. In fact, most people who see them can scarcely believe them so young. To start with, we take a small, low box and cut holes in the side one and a half inches apart, each hole being one and a half inches wide and about two inches long. Put on a lid, and put the feed in—shorts and oat chop ground fine; beef scrap for animal food, and all kinds of grain crushed coarse. We usually have two feeders in each colony house, one for the mash and beef scraps, with a partition between the two, the other for grain after the chicks get older, say six or seven weeks, when we use a larger box. Try making one or two; you will be surprised how quickly you can make them. For the older chicks, we don't cut holes; just take a piece off the lid, put in the feed, and stand it up on its side. Try to get narrow boxes, so that a good-sized bird can reach across them. Throw all the table scraps in the pen after mealtimes, with a feed of cooked potatoes once in a while, and if you don't raise good large, healthy chicks, there is something wrong with your breeding stock.

Manitoba. H. E. WABY.



R. W. Wade, B. S. A.

Lecturer in Animal Husbandry, Ontario Agricultural College.

**"THEY'RE COMING BACK TO CANADA TO-DAY."**

It is a matter for especial gratification to announce that the position of Lecturer in Animal Husbandry at the Ontario Agricultural College, lately vacated by Mr. Arkell, will be filled by such a thoroughly energetic and capable man as R. W. Wade, B.S.A., a Canadian, and graduate of 1905, who comes back to us from Arkansas. Mr. Wade's home is Lincoln County, Ont., where for a number of years he welded the rod to excellent purpose as teacher in a public school. Entering the O. A. C. in the fall of 1902, he took two years' work in one. Graduating in 1905, he accepted the position of Assistant Agriculturist in the Arkansas State University, where in less than a year he was made Professor of Agriculture. He is a bundle of nervous energy, level-headed, experienced, and very highly esteemed by a large circle of friends.

**EASTERN ONTARIO FARMERS CONVENE.**

A well-attended convention of farmers from the counties of Prescott, Carleton, Stormont and Renfrew, convened in Ottawa last week, to discuss the question of assessment of farm property, passed a resolution declaring that the present law compelling a new assessment of farm property every year should be amended so as to make the assessment every three years, thereby saving considerable expense to the municipalities. On the question as to whether farm buildings should be exempted from taxation, the consensus of opinion was expressed in a resolution favoring a tax on the land only and none on the buildings. An association was organized, with the following officers: President, Warden Heney, of Carleton County; Vice-Presidents, the Wardens of the different counties entering into the association; Secretary, R. B. Faith. Directors, the Reeves of the different municipalities. It was decided that each municipality shall send one delegate to the annual meeting, and that the next meeting will be held on Wednesday during fair week in Ottawa, to arrange the matters for presentation to the Government of the Province.

**CO-OPERATIVE FRUIT-GROWERS MEET.**

Twenty local organizations were represented at the annual meeting of the Ontario Co-operative Fruit-growers' Association, held last week in Toronto.

The name of the association was changed to the Co-operative Fruit-growers of Ontario, as it conflicted with the title of the Ontario Fruit-growers' Association, which is an educational organization, not a commercial one.

The following officers were elected: President, A. E. Sherrington, Walkerton; 1st Vice-President, D. Johnson, Forest; 2nd Vice-President, W. H. Dempsey, Trenton; 3rd Vice-President, Robert Thompson, St. Catharines; Secretary-Treasurer, A. B. Cutting, Toronto.

It was decided to undertake a system of extensive advertising in Manitoba and the Northwest, to bring the co-operative associations into closer touch with fruit buyers there. One or more agencies will be established in the West.

It was decided to adopt a uniform brand, to be used by all affiliated associations that pack their fruit in accordance with the standard that is recognized by the central organization.

The affiliated associations decided to raise funds to carry on the work of the central organization more extensively than was done last year. A resolution was passed regarding various features of the transportation of fruit, including demurrage of cars, stop-over privileges, facilities for shipping, and so on, the same to be laid before the Railway Commission through the transportation committee of the Ontario Fruit-growers' Association.

A resolution was passed, requesting the Dominion Minister of Agriculture to take such steps as may be necessary to insure the fruit packed by the affiliated associations receiving close and frequent inspection at the hands of the inspectors of the department, and that the inspectors be authorized to give such assistance and advice as lies within their power to assist in securing uniform packing by the affiliated associations; and, further, that when any local association has been convicted for a second time of fraudulent practices, that it be expelled from this association.

A resolution was adopted against the practice of making vinegar with acids, as being detrimental to the business of making apple cider.

The executive committee waited upon Hon. Nelson Monteith, Minister of Agriculture, in regard to the appointment of instructors, whose duty it would be to visit the associations and instruct them in methods of bringing about a more uniform pack of fruits among the co-operative associations affiliated. The Minister expressed himself as being much in sympathy with the movement, and gave assurance of assistance in this matter at an early date.

Seventeen polo ponies, belonging to George E. Gould, were recently auctioned off at the American Horse Exchange, New York, for what is termed the record-breaking figures of \$8,650, or an average of about \$509.

A new law in Illinois gives blacksmiths a lien on the horses and mules they shoe until the shoeing bill is paid.

**THE FARM BULLETIN.**

**THE GENIUS OF REV. A. E. BURKE.**

The Canadian Magazine for June contains a well-written appreciation, from the pen of William Pitts, of Rev. A. E. Burke, of Prince Edward Island, with whose notable contributions, under the title "Maritime Letter," "The Farmer's Advocate" readers are agreeably familiar. Among other paragraphs in the estimate of Father Burke is the following:

"Though an optimist, he is not an idealist. He is a man who is thoroughly convinced that the gospel of Christianity enjoins a gospel of work. And he is a strenuous example of his belief. With a willing brain, he has industriously occupied his leisure moments in the study of horticulture. It is due largely to his active enthusiasm that his native Province is becoming so justly famed for its plentiful, luscious fruit. In the other branches of agriculture he also takes a practical interest. Stock-raising, beekeeping, etc., engage his attention. He is not merely a superficial student, not a hobbyist, but a firm believer of experience as a final proof, and an advocate of utility as opposed to mere theory. His constant contributions to the agricultural journals of the Dominion give ample evidence of this fact; for they are noted for their extensive knowledge, sound advice, and breadth of view."

**CANADIAN SEED-GROWERS' ASSOCIATION.**

Editor "The Farmer's Advocate":

I have been directed by the President of this association, to notify you that the regular meeting of the association, which heretofore has been held in the City of Ottawa in June, has been postponed until some time in January or February. It was thought that by changing the date as above, not only would it be less difficult for many of our members to attend, but that this date would be a more suitable one for several other good reasons which will occur to your readers.

We purpose holding an executive meeting in July, however, in accordance with clause 17 of the constitution, when the general business of the association will be transacted. If you or any of the members have any recommendations to make, re any part of the work itself, or in regard to the holding of exhibitions, etc., we shall be very glad to have them some time this month.

L. H. NEWMAN, Sec. C. S.-G. A. Ottawa, June 11th, 1907.

**MR. PERKS AND THE GEORGIAN BAY CANAL.**

Mr. R. W. Perks, member of the British Parliament for North Lincolnshire, one of England's greatest commercial and financial leaders, is on a mission in Canada, chiefly for the purpose of looking over the proposed Georgian Bay Ship Canal project, the cost of which has been estimated at \$105,000,000. It would enable ocean-going boats to pass from the great upper lakes to the ocean, via Ottawa and Montreal. In view of the increasing traffic of Canada, he regards its construction as a commercial necessity. Pending the final decision of the Canadian Government regarding the work, his firm have the contract with the parties who have the charter. Among other great enterprises which Mr. Perks has carried through may be mentioned the Manchester ship canal, the Severn tunnel, the Swansea docks, the East London Railway, the Alexandria docks in Egypt, the Metropolitan and District Railway, the Barry docks in South Wales, the harbor works at Buenos Ayres (costing \$50,000,000), and the Preston docks; while at the present time his firm has under construction the harbor improvements at Rio Janeiro for the Brazilian Government.

**NEW ASSISTANT IN HORTICULTURE AT STE. ANNE.**

We have pleasure in introducing to our readers by means of this biographical sketch and the accompanying halftone portrait, Victor R. Gardner, who comes in July from the Iowa State College to the position of assistant in horticulture, associated with Prof. W. S. Blair, at the Macdonald College, Ste. Anne de Bellevue, Que. After receiving ordinary school and high-school training in Michigan, and spending the early years of his life upon a farm, Mr. Gardner, in 1901, entered the Michigan Agricultural College, and graduated from the Horticultural Course at that institution four years later. While there, he spent several vacations doing field work for the entomological section of the Experiment Station under Prof. R. H. Pettit, and for the horticultural department in their orchards and gardens.



V. R. Gardner.

Recently Appointed to the Position, Assistant in Horticulture, Macdonald College, Ste. Anne de Bellevue, Que.

His horticultural training was under Prof. U. P. Hedrick, now of the New York Agricultural Experiment Station. Immediately after graduation, he spent a couple of months with the Storrs-Harrison Nursery Company, of Painesville, Ohio, and since then he has occupied the position of Instructor in Horticulture at the Iowa Agricultural College. While there, he embraced the opportunity by taking post-graduate work under Prof. S. A. Beach. His post-graduate work on the cold-storage of apples has also brought him into touch with a number of men of the U. S. Department of Agriculture. This month, he receives his M. S. degree, and is regarded, by those who know him, a promising man for the position he is called to fill. We trust he may find the Canadian atmosphere congenial to his taste.

## What the Excursionists See and Hear this Year at the O.A.C.

The annual June excursions run by various Farmers' Institutes to the Ontario Agricultural College are on, and crowds of a thousand a day and upwards de-train at Guelph depot, pack the street cars leading to the College, swarm across the campus to the gymnasium, where, seated on benches, they are regaled on the usual ration of sandwiches, coffee and cheese, which is afterwards given chance to "settle," while President Creelman delivers a breezy address of welcome, explaining the work of the College, urging the visitors to send their boys and girls, and finally directing the throng where to go to hear the work of the several departments explained by their respective professors. A member of "The Farmer's Advocate" staff made the rounds last week, in company with a bright and numerous representation of the stalwarts of Peterboro, and for the benefit of readers who may not take in the excursions this year, we publish a few gleanings gathered with eyes and ears.

### NEW BUILDINGS.

One never visits the O. A. C. without finding some evidences of new building or extensions to the equipment. This year the first feature to strike the eye is an immense water tank, mounted on a steel frame, and rising behind the main building to such proportions as to dwarf the smokestacks which used to mark the College as one approached Guelph on the train. The new tank will give vastly better pressure than used to be possible, and will make it much more convenient to maintain an adequate supply of water.

Then there is the new Machinery Hall, which, though depicted in the two-page illustration in our Christmas number, is a new building to most of the visitors. Its two stories are of red pressed brick, on a limestone foundation. It is 146 feet long and 64 feet wide, and stands back of the Chemical Building. The north-west wing and the central portion are devoted to manual training and farm mechanics. In the basement of this wing is a forge room, equipped for purposes of instruction in metal work and blacksmithing. In the basement of the central part is accommodation for the storage of farm machinery and implements. On the first floor is situated a machine shop, offices and store-rooms. Across the corridor is a room to be used for demonstration purposes in farm mechanics. It also contains a unique collection of domestic utensils and farm implements of early pioneering days. The second floor is occupied with class rooms for woodworking, drawing, etc., offices and store-rooms. The south-east wing of the building is occupied by the farm carpenter, blacksmith and painter.

The Chemical Building was considerably enlarged last year, without in any way marring the consonance of the general plan. It is now 106 feet long, and 75 feet across at the widest point. It contains lecture rooms and commodious laboratories for analyses and research work, while a feature of the new part is a specially-equipped room for investigating wheat and flour problems.

At the north corner of the Main Building, which, as most of our readers are aware, contains the students' dormitories, we were pleased to observe the foundations of an extension to the wing containing the dining-room. The addition will provide on the ground floor for an extension of the dining-room, as well as rooms for a laundryman and a baker. The second and third stories will contain twenty new rooms, to accommodate forty students.

### THE INFLUENCE OF THE COLLEGE.

Two instances showing the influence being exerted by the O. A. C. both at home and abroad were brought to our attention, and are worth repeating. A few weeks ago the College was visited by J. A. Schwartz, of Norway, who took a two years' course in 1881-2 and 1882-3, during the time his father was Norwegian consul at Quebec. Mr. Schwartz is warm in his praise of his college course, which has enabled him greatly to improve conditions in his native land. He now owns a line of eleven steamships plying from Norway to all parts of the world, and in the course of a personal inspection trip he dropped off the C.P.R. at Smith's Falls on his return visit, to take a run down to his alma mater.

The other instance was that of a man who complained to President Creelman that he had never received a cent's benefit from the O.A.C., had never even obtained a pound of seed from the farm. On inquiry it was learned that this man was using in his regular farm practice varieties of wheat, barley and oats all introduced into the Province by the Experimental Department of the Ontario Agricultural College. Thus do the benefits of such an institution filter out and irrigate the whole face of the country. The June excursions are an invaluable means of disseminating useful knowledge, the visitors being profited, as the President expressed it, by the good ideas, the pointers, and by the acquaintances they may make.

### THE EXPERIMENTAL DEPARTMENT.

In the Department of Field Experiments, Prof. C. A. Zavitz is on hand this year, back from his twelve months' vacation abroad, studying and observing in the vast domain of plant-breeding. While absent he was visiting the men who were doing the greatest work in this line, and mentioned as some of the foremost of these Prof. Biffen, of Cambridge University, England; Prof. Wilson, of St. Andrew's College, Scotland; Prof.

Tscherma, of Vienna, Austria-Hungary; Prof. Johannsen, of Copenhagen, Denmark; and Prof. Wittmak, of Berlin, Germany.

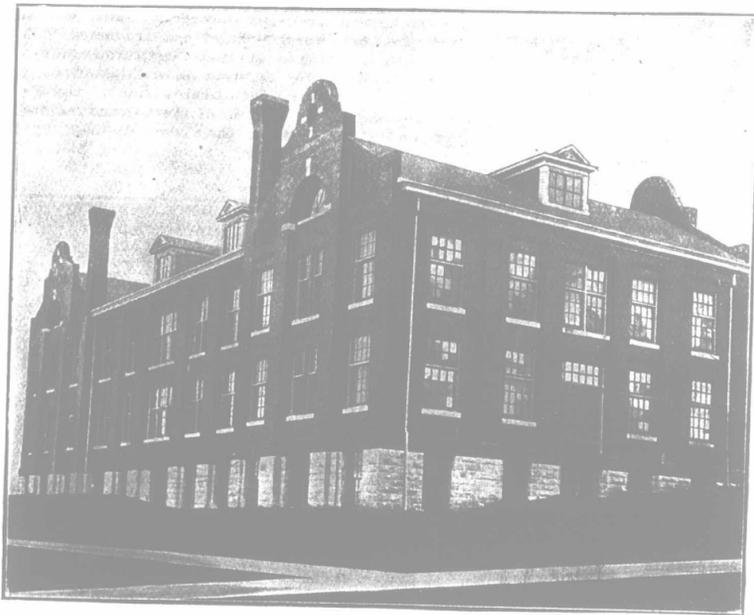
Among the experimental plots, Prof. Zavitz is at home, and has results and figures on his tongue's end. We jotted down a number of notes as the crowd passed around, piloted by the Professor, pausing here and there to comment on certain experiments. In the experimental department are 50 acres, containing over 2,000 small plots. A general system of rotation is practiced so far as possible. The 50 acres are divided into four sections, on each of which are grown by turns: cereal crops; cultivated crops, such as corn, roots, etc.; cereals again; and then pasture. The year in which the cultivated crop occurs the land is manured with 20 tons or about 12 good loads of barnyard manure per acre. This means that about one-quarter of the land is manured each year. No commercial fertilizer is used, except a little for distinct fertilizer experiments. All experiments are conducted with great care, and repeated for several successive years, so that figures quoted are in nearly all cases the averages of many years' work. Following are some of the points brought out:

### FIELD ROOTS.

Mangels and turnips have yielded on the average two-thirds of a ton more per acre sown on the level than on ridges. The carrots are thinned to 4 inches apart, the mangels and turnips to 10 inches. A closer stand gives larger yields, but the roots are so small as to require too much handling. The distances recommended are a profitable medium between the very close stand, which gives maximum yields, and the very thin stand, which grows the largest roots. Yellow Leviathan is the best mangel. It outyields all the Mammoth Red varieties, and is of better feeding and keeping quality.

### BARLEY.

The best variety of barley is Mandscheuri, of which about 500,000 acres are now grown in Ontario, being



Machinery Hall, Ontario Agricultural College, Guelph.

sown probably on two-thirds of our farms. This variety was imported by the College in 1889. After testing it for five years the College distributed it in small quantities through the Experimental Union. The seed was increased and distributed by the experimenters, and has proven of immense value to the Province—enough to pay for several agricultural colleges. They are now trying to develop an improved strain of it. From 9,000 seedlings four years ago, one plant was selected as the best and most typical plant. Last year there was enough seed descended from this plant to supply small lots to 250 farmers. It is sent out as Barley 1. It is better strawed than Mandscheuri, and, in fact, better all round, though the yield is not materially larger.

### BROADCASTING VERSUS DRILLING.

"How are the grains sown on the experimental plots?" was asked. "Broadcast," was the reply, "for the sake of convenience, although in experiments we have secured rather better results from drilled grain. If the land is in good condition the advantage is only about two-thirds bushel per acre, but if the season is late and the ground dry the advantage of drilling is much greater. On the other hand, in very early spring, when the ground is quite moist and only the surface is warm, broadcasting gives equally good and sometimes a better results than drilling. The philosophy of it is that the drill puts the grain down deeper, and when the lower soil is not warm enough it can readily be that shallow planting is better than deep.

### WHAT GRAINS TO SOW FIRST.

In sowing spring grain, put the wheat in first, then barley, then oats and peas last. In many years' experiments, spring wheat sown as soon as spring had opened and the ground was fit, has given an average of four bushels per acre better yield than that sown a week later. Barley also has given best results when sown at the first date. With oats the best results are shown by the plots put in at the end of the first week after seeding opens; while peas have done best at the end of the third or even the fourth week after seeding opens.

Moreover, after the best day for the sowing of each particular kind of crop has arrived, then for every day's delay in sowing there is a decrease in yield of 58 pounds per acre in the case of oats; 52 pounds per acre in the case of barley; 28 pounds in case of wheat, and 22 pounds per acre in the case of peas. In considering these figures the reader must bear in mind that the soil on the experimental plots is an excellent loam, with unusually good drainage.

### CLOVERS AND GRASSES FOR PASTURE.

Prof. Zavitz believes we should give more attention to the improvement of pasture lands. The practice we have dropped into of late years of seeding with only timothy and clover, and leaving these for several years on account of labor scarcity, is liable to result in some very bare pastures, if we should experience such dry seasons as we had some years back. From the Bureau of Industry reports it seems that we have been increasing our grass acreage by 140,000 acres a year during the past decade. Timothy is not a good pasture grass. In drouthy summer weather old timothy meadows dry up. Any of the following are better pasture grasses than timothy: Meadow fescue, orchard grass, tall oat grass, or meadow foxtail. For some years experiments have been conducted in seeding various mixtures of clovers and grasses with a grain crop, and then taking various cuttings and weighing them,

to ascertain the amount of hay they would yield. Of all the mixtures so far compared, tall oat grass and alfalfa have given the greatest yield, amounting to one and a third tons more dried grass per acre than was given by timothy and red clover. Both are hardy, both are early, and both come on readily after cutting, producing a third crop for hay. In pasturage experiments, tall oat was one of the first grasses chosen by the stock. Cattle are fond of both alfalfa and tall oat grass when not allowed to become too old. Neither will do well, however, on a cold wet soil. The mixture tried was 12 pounds alfalfa and 20 of tall oat grass per acre. This mixture, however, is not recommended for general use, for various reasons. Instead,

Prof. Zavitz advises when seeding land to be used the second, or the second and third years as pasture, to sow a mixture of, say, six pounds common red clover, one and a half pounds timothy, two and a half or three pounds meadow fescue, the same of orchard grass, and two pounds tall oat grass.

If laying the land down for a longer period, he suggests for the average soil the following mixture of a few of the very best and hardiest grasses and clovers: Orchard grass, 4 pounds; meadow fescue, 4 pounds; tall oat grass, 3 pounds; meadow foxtail, 2 pounds; timothy, 2 pounds; alfalfa (if land is suitable), 5 pounds; alsike, 2 pounds; white clover, 2 pounds; or a total of 24 pounds. Contrary to the common idea in this country, the above is not a heavy seeding for permanent pasture. In the Old Country they recommend 40, 45 and 50 pounds per acre. As to yield, a plot seeded as above yielded an average of over five tons of hay per acre for ten years, without any manure.

### CATCH CROPS FOR PASTURE.

A question often asked is what to sow in spring to provide pasture the same season? Six or seven years' experiments with 17 different crops have indicated the following mixture as the best one tried:

- 1 1/2 bushels oats.
- 30 pounds Early Amber sugar cane.
- 7 pounds common red clover; or a total of 88 pounds per acre.

The oats come on first, later, in hot weather, the sugar cane supplants the oats, and towards

fall the clover furnishes a good deal of pasture. Unlike corn, the sugar cane is in no way injured by pasturing. Last summer a piece of seven acres of this yielded more than enough stuff to graze seven head of cattle. This year another piece is sown. The oats and clover were showing, but the sugar cane had not yet come on, although Prof. Zavitz says it never has failed to do so in any year to date.

Further information regarding this interesting department must be held over for later publication.

THE FARM AND STOCK.

The farm proper and the live stock are under Prof. Day. The crops, though backward as everywhere else, are looking healthy; the later-sown spring grain being especially even and of good color. A piece of fall wheat, on land summer-fallowed to kill the quack grass, was pretty promising—a little spotted, but looking good for thirty to thirty-five bushels per acre.

Among the live stock, everybody wants to see the Clydesdale colt, Pioneer, out of Her Pretty Sel, and by Right Forward. This colt, which was illustrated in "The Farmer's Advocate" April 18th, and weighed 950 pounds at 9 months of age, is now barely twelve months old, and is developing splendidly, being generally voted better than his picture. Unfortunately, his dam aborted this year, owing to the smell of blood where an injured steer had been slaughtered. Out in the paddock is a fine colt foal, by King Seal, and out of Princess Maud, the Clydesdale mare purchased at the Davies sale. Then there is Sunflower, the Clydesdale filly, by Martinet, which was purchased at the Dalgety sale. She should prove a valuable acquisition to the College equine stock.

In beef cattle, the new head of the Shorthorn harem is Golden Champion, by Village Champion. He already has several pretty promising calves to his credit.

MORE AYRSHIRES AND JERSEYS FOR THE COLLEGE.

As announced previously in these columns, the dairy herd was last winter placed under Prof. Day, to be handled in connection with the other live stock of the farm. An effort is being made to strengthen the herds of Ayrshires and Jerseys. The College recently purchased from Mr. R. Reid, Berlin, Ont., four handsome Jersey cows. The lot comprises the grand aged cow, Bugle's Buttercup, by Bugle of St. Lambert 88363; her daughter, Buttercup's Queenie, by Raven Hill 48034; the handsome little cow, Dewdrop's Aggie, by Head Monitor 58308; and a very sweet typical cow, Signal's Ramona 196470. These cows are all creditable representatives of the breed, and, what is still better, they have all proved their merit at the pail. It is Prof. Day's intention to make performance the main consideration in making selections for the College, and these cows should give a good account of themselves in the College herd. Two deep-milking Ayrshire cows have also been purchased from Mr. Hunter's recent importation, and a capital young cow from Mr. Hector Gordon, of Howick, Que. Other additions will be made from time to time, as opportunities present themselves.

In the bull stables visitors are impressed with the tremendous proportions of the Holstein sire, Johanna Rue 4th's Lad, by Sarcastic Lad. In the cow byre a greater wonder is the famous Holstein cow, Boutsje Q. Pietertje De Kol, illustrated on page 625 of "The Farmer's Advocate," April 11th, 1907. She is holding her flow remarkably well, giving 55 to 56 pounds of milk a day, after being seven months in lactation. She has given from November 1st, 1906, to May 31st, 1907, 14,168 pounds of milk and 632 pounds of butter (estimated from fat content). By present prospects she should yield 20,000 pounds of milk within the year. The milking machine is not being used this year, Prof. Day desiring to obtain some records by hand milking first. Next year it may be tried again. Notwithstanding the late pasture season, the College herd has done fully as well in the stable this spring as it used to do when turned out early. The secret is silage, roots, and a reasonable ration of meal.

IN THE HORTICULTURAL DEPARTMENT.

The horticultural department is looking well, not very far advanced, but thrifty and in good shape. The orchard never looked better. Extensive tests with vegetables are being undertaken, using seed of all kinds, from Canada, United States and England. These tests are to be duplicated at the Horticultural Experiment Station at Jordan Harbor. Prof. Hutt lays great stress upon the co-operative work being carried on all over the Province. In 1894 co-operative experiments in horticulture began with 60 experimenters. This year 2,392 lots were sent out, and altogether some 4,000 men are reporting the results of experiments in progress. Especially noteworthy is the growth of co-operative experimenting with vegetables, of which 1,481 lots of seeds were sent out this year. A special effort was made to interest such rural schools as have been carrying on school gardening. All these gladly took up the work of co-operative experiments in horticulture, and much good should come of the movement.

PROSPECTS IN NIAGARA DISTRICT.

Prof. Hutt had just returned from a visit to the Niagara district, where he found flourishing conditions. One nurseryman in that section reported this year's sales of nursery stock \$10,000 ahead of last year. For the most part, the season's fruit prospects are bright, although in some cases cold weather will interfere with bees working on the blossoms. Japan plums have not set well, owing to the early cold weather; other varieties promise better. Sweet cherries have set rather a light crop, but sour cherries are better, and apples

promise well. Prof. Hutt is a strong advocate of the honeybee in fruit sections. The most productive orchards in the Province are those owned by beekeepers.

DAIRY AND POULTRY DEPARTMENTS.

The dairy and poultry departments attract their usual throng of visitors. In the former considerable experimental work is in progress, much of it being a repetition of that done in previous years. In the poultry, Prof. Graham is still wrestling with the knotty problem of white diarrhoea in incubator-hatched chicks. We shall have more to say of this later. Meantime, it is enough to note that the placing of a large pan of buttermilk in the incubator seemed to overcome the trouble in three successive hatches. So also did the use of Zenoleum to disinfect the machines, although the result in this latter case is not attributed to its disinfectant property, but to certain gases volatilized from it. Whether these results will be borne out by further work remains to be seen.

INFORMATION ABOUT INSECTS AND WEEDS.

In the live-stock class-room, in the Experimental Building, the College maintains during June a Bureau of Information, where visitors may enquire about insects, weeds, and fungous pests. Here may be seen in small glass bottles a collection of 350 samples of weed seeds, another of 300 of the chief economic plants, such as weeds, clovers and grasses; a reference collection, showing seeds of weeds named in the Seed Control Act; a collection of 45 Western weeds, mounted on paper, as well as native weeds similarly prepared; 23 forage grasses in jars, and a large collection of insects of economic importance.

A survey of this ends a busy day, and with a glass of lemonade at the refreshment tent, which is run in the interests of the various students' organizations, the visitor makes for the car, and turns his back on one of the most beautiful and interesting places in the Dominion of Canada.

WEST ONTARIO CROP OUTLOOK.

That farmers will do well to guard against a possible shortage of feed next winter is the opinion of Hon. Nelson Monteith, Minister of Agriculture for Ontario. While not wishing to pose as a pessimist, he has observed in travelling over the country prospects of a comparative shortage of hay, and deems it the part of wisdom to make provision for emergencies. The season generally is two or three weeks late, and a survey of the meadows is far from encouraging. The stockman is fortunate who planted an extra acreage of corn, roots and catch crops for fodder. Speaking of corn, he said, in conversation with a member of our staff last week, that in his own neighborhood (South Perth), a good many farmers who planted their corn early are worse off than those who waited till the ground and weather were warmer. Fall wheat promises better than early reports indicated. In a trip west to Huron County, he was pleased to note a pretty fair promise for this crop. The outlook for oats is not any too encouraging.

Our own observation bears out Mr. Monteith's remarks, although in the region towards Port Huron and Detroit the winter played sad havoc with both wheat and clover. Early-sown spring grain suffered from the wintry weather following the first spell of seeding. Later grain has come on better, and so far as we have seen, is healthy and green. This was noticeable on the road from London to Guelph, and more particularly from Guelph north to Elora.

Speaking generally of the farming district tributary to London, there has been a marked improvement during the past week or ten days. The winter wheat fields are now looking remarkably well, as a rule, and the spring grains are healthy. There will not be a full crop of hay, but the supply of fodder will be supplemented by a greater area of millet and corn. Frequent showers and warmth will help the pastures, but most cheese factories report a decrease in the supply of milk, on account of the cold weather and early shortage of all fodder and pasturage. Some factories show an increased receipt of milk, but this is, perhaps, due to the fact that dairy farmers have been stocking up with more cows, purchased this spring at phenomenal prices under the stimulus of the remarkable values for cheese. In some sections further west the prospect is not so good, but at the present rate of improvement in the growing crops, while haying and harvest may be later, there is every promise of very fair returns. All farm products have been and are still commanding high prices, which help to offset shortages in supply. The bloom on the apple and smaller fruit trees has been phenomenal, and with proper cultural methods, including spraying, there should be abundance.

O. A. C. GRADUATING CLASS.

Following is the list of fourth-year students at the O. A. C., who graduate this year with the degree of B.S.A.: Barton, H.; Binnie, T. H.; Bunting, T. G.; Coglan, M. F.; Crow, J. W.; Diaz, P.; Hamer, R. S.; Hartman, W. J.; Hudson, H. F.; Jacobs, W. S.; McKenney, A.; Mills, R. W.; Nixon, C. C.; Prittie, F. H.; Reed, F. H.; Sanders, G. E.; Scott, H. W.; Wheeler, H. C.; Squirrel, W. J.

A delegation representing the Quebec Government have been making a tour of inspection of the highways of Ontario, with a view to adopting some scheme of road improvement in the sister Province.

EDUCATIONAL CAMPAIGN PREFERRED TO DISPLAY.

Those who have been seeking to inaugurate a winter dairy show at Toronto must be credited with good intentions and unlimited perseverance. Although Hon. Nelson Monteith, Minister of Agriculture for Ontario, had repeatedly made it plain that he could not see his way clear to subsidize or encourage the holding of such an exhibition, a number of men interested continued the canvass, and endeavored to raise by subscription the necessary amount of money to finance it. A considerable sum was promised, but at a meeting held in Toronto, attended by representatives of the Toronto Board of Trade, Toronto Agricultural Society, and various other local organizations, it was felt and decided, that to make a success of the show it was necessary to secure the countenance of the Ontario Department of Agriculture, and a committee was appointed to interview the Minister.

On Wednesday, June 12th, Mr. Monteith received the deputation, consisting of representatives of the Toronto Milk Producers' Association, Toronto Board of Trade, Toronto City Council, Toronto Agricultural Society, and members of the County and Township Councils of York County. It was introduced by A. McCowan, M.P.P., for East York. They asked that the Minister give his permission for the Eastern and Western Ontario Dairymen's Associations to take part and assist in the management of the show. It was also desired that he arrange to introduce educational features.

In reply, Mr. Monteith pointed out that a large appropriation had already been made for educational dairy work this year, and the Department did not see its way clear to take a position that might entail further obligations in the event of the show not proving a financial success. He doubted whether any considerable number of people could be induced to attend a dairy show, which is not, at the best, adapted to the making of a specially attractive display. The Ontario Horticultural Exhibition has yielded an annual deficit, and is but meagrely attended, notwithstanding that it appeals to city visitors as a dairy show could not be expected to do. So far as the conventions of the Dairymen's Associations are concerned, these are needed in their respective territories, and any time or money expended by them beyond the conventions could be better devoted to the holding of local district meetings of an educational nature.

While the Minister's stand may be disappointing to those who have espoused the show, we believe it will commend itself to their judgment upon dispassionate consideration, and future efforts in the direction of a dairy exhibition should be devoted to extending the dairy features at the existing winter fairs, as repeatedly advocated in these columns as being in the best interests of the dairy industry and of agriculture at large. It is easy to picture great benefits from the holding of a separate dairy show, but the practical question is whether they would be realized. By holding the dairy exhibition at Guelph and Ottawa, as part of the existing winter fairs, a large attendance would be assured, and the fields of usefulness of both these institutions greatly extended.

P. E. ISLAND.

The latest season ever known here. At this writing, June 10th, the weather is still very cold. There is little or no growth; cattle can scarcely get a bite on the pastures, and hay is practically done. What little there is is selling at \$20 a ton. The crop is now mostly in, but not much of the grain has appeared above ground yet. We never saw the hay meadows so short and bare in June. Very little clover came through the winter alive. It looks as if we would have the shortest hay crop we ever had. Some are already talking of plowing up grass land and sowing it with oats and peas to cut for hay. This, we think, will be the right thing to do where meadows have been badly winter-killed. Of course, a change to warm weather soon would save the situation to a great extent, but the want of clover in the meadows will leave the hay of very little bulk. The grain crop has been got in well, as the land worked up fine, and we may still have a fair crop, even if it is late in being harvested. Most of the dairy stations have started, or are starting business this week, but the supply of milk is quite small, and will be till we have some heat to start the grass. Prices are high here this season. Oats, 50c.; potatoes, 60c. per bushel. Horses keep up to the top notch. Beef cattle are scarce and high, good quality selling for 5c. live weight. J. B. Hogate, of Ontario, is down here with a bunch of horses, Shires and Hackneys, to sell to our farmers. They are said to be a fine lot, but we have not heard if he succeeded in disposing of them yet. His prices were much higher than Island stockmen have been paying.

The establishment of our promised Experimental Farm has been postponed for another year. This is another case in which P. E. Island must wait, as well as in the matter of "continuous communication" with the mainland. With respect to shipping green cheese, that is being discussed and rightly condemned. P. E. Island is not guilty. There was no cheese shipped out from here last season to Old Country markets till they had been at least two weeks in the curing room, and we have no complaints about loss in weight on arrival. Our cheese board meets twice a month, and half a month's make is boarded each meeting, and if sold remains in the curing room for two weeks. We think something ought to be done to prevent buyers or factory men from injuring the reputation of our cheese by hurrying them to market uncured. W. S.

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### MARKETS.

#### TORONTO. LIVE STOCK.

Receipts last week were moderate, not nearly as large as the week previous, amounting, all told, to 257 carloads, consisting of 3,521 cattle, 2,393 hogs, 919 sheep and lambs, with 718 calves, and 38 horses. Quality of fat cattle was fairly good; trade the best of the season, with prices 25c. to 50c. per cwt. higher. On Monday, at the Junction, receipts of cattle were 2,125; trade good. Bulk of exporters sold at \$5.90 to \$6.

Exporters.—Prices ranged from \$5.65 to \$6.35, and one load at \$6.50, the bulk selling at \$5.85 to \$6. Export bulls sold from \$4.25 to \$5.

Butchers.—Best loads, \$5.85 to \$6.12; fair to good, \$5.75 to \$5.90; common, \$5.40 to \$5.65; cows, \$3.85 to \$5.25 per cwt.

Stockers and Feeders.—There was a fair demand for a limited number of stockers and feeders last week, and the market was steady. As has been the case for two or three weeks, the butchers and packers bought about all that had any flesh, and were willing to pay more than the feeder buyers could afford to give. Stockers sold at \$3.25 to \$3.75, and a few at \$4 to \$4.15.

Milk Cows.—The market was steady for good to choice cows. Medium milkers, however, are not in strong request, and have been selling at a discount lately. Prices ranged from \$25 to \$60, though there were not many cows selling above \$50.

Veal Calves.—The quality of the bulk of veal calves was not good. Prices ranged from \$3 to \$6 per cwt., with a few at \$6.50.

Sheep and Lambs.—Receipts light; prices firm. Export ewes, \$5.50 to \$6.60; spring lambs, \$3 to \$7 each.

Hogs.—Receipts light, in comparison with the week before, but prices were from 15c. to 25c. per cwt. lower, at \$6.90 for selects, and lights at \$6.65 per cwt.

Horses.—Burns & Sheppard report a good trade last week, especially for those of good quality and well broken. Two or three high-class heavy drafters and some few harness horses sold at high prices. There is still a good demand for first-class draft horses, and prices for such ranged from \$225 to \$325. Harness horses, 15 to 16 hands, with good action, sold up to \$300, and one as high as \$350. General-purpose horses also sold at \$175 to \$225; express horses sold from \$150 to \$200, and good serviceable workers, \$125 to \$150.

#### BREADSTUFFS.

Wheat.—No. 2 white winter, buyers, 85c., sellers asking 90c. to 91c.; No. 2, mixed, sellers, 88c.; No. 2 red, sellers asking 91c.; spring wheat, No. 2, buyers at 80c.; Manitoba No. 1 Northern, buyers, 94c.; Owen Sound, 96c.; to Goderich; No. 2 Goose, sellers 85c., buyers 80c.

Buckwheat.—Nominal at 60c.

Rye.—No. 2, buyers, 70c.

Peas.—No. 2, 81c.

Oats.—No. 2 white, sellers, 45½c.; No. 2 mixed, buyers, 43c.

Corn.—No. 3 yellow American, 62½c. to 63c., lake and rail, Toronto basis.

Barley.—No. 2, 54c.; No. 3X, 53c.; No. 2, 52c.

Bran.—\$23, at Toronto.

Shorts.—\$23 to \$24.

Flour.—Ontario, 90 per cent. patents, \$3.60 bid, \$3.90 asked; Manitoba first patents, \$4.75; seconds, \$4.15 to \$4.20; strong bakers', \$4.75.

#### COUNTRY PRODUCE.

Butter.—Receipts firm; prices easy. Creamery pound rolls, 21c. to 23c.; creamery boxes, 20c. to 21c.; dairy pound rolls, 20c. to 21c.; tub, 19c. to 20c.; bakers' tub, 17c. to 18c.

Eggs.—Market firm, 18½c.

Cheese.—New, 13c. for large; twins, 13½c.

Honey.—Strained, 12c.; combs, per dozen, \$2.60 to \$2.75 per dozen.

Evaporated Apples.—8½c. per lb.

Beans.—Car lots, in bags, at Toronto. Hand-picked, \$1.25 to \$1.30; primes, \$1.15 to \$1.20; broken lots, \$1.45 to \$1.55 for hand-picked; \$1.30 to \$1.35 for primes, in bags.

Potatoes.—New Brunswick Delawares firmer at \$1.30 to \$1.35 per bag, by the car lot, on track, at Toronto.

Poultry.—Receipts have been more plentiful, with a light demand for all, excepting spring chickens and ducks. Spring chickens, alive, 20c. per lb.; dressed, 25c. to 30c. per lb. Yearlings, alive, 13c.; dressed, 15c. Spring ducks, alive, 30c. per lb.; dressed, 35c. Old hens, alive, 10c. per lb.; dressed, 12c. per lb. Turkeys, 12c. to 15c.

Hay.—Receipts light; prices firmer at \$14.50 to \$15 per ton for timothy; No. 2 mixed, \$12 to \$13 per ton.

Straw, Baled.—\$7 to \$7.50 per ton.

#### HIDES AND TALLOW.

Prices are quoted as follows by E. T. Carter & Co., 85 East Front St., Toronto: Inspected hides, No. 1 cows and steers, 9½c.; inspected hides, No. 2 cows and steers, 8½c.; country hides, 7½c. to 8c.; calf skins, No. 1, city, 13c.; calf skins, No. 1, country, 11c. to 12c.; sheep skins, each, \$1.70 to \$1.80; horse hides, No. 1, each, \$3.25 to \$3.75; horse hair, 30c.; tallow, 5½c. to 6c.; wool, unwashed, 13c. to 14c.

#### MONTREAL.

Live Stock.—The English cattle market fluctuated somewhat during the past week, but, on the whole, very little change is shown. London reported prices firm, and sales of American steers at 12½c. to 13c., Canadians being 12½c. to 12½c. per lb. Liverpool quoted Americans at 12½c. to 13c., and Canadians at 12½c. to 12½c. per lb.; while Glasgow reported short supplies and a good active trade at 12½c. to 13c. for top Canadians, and 12c. for seconds, and 10½c. to 11c. for bulls. The local market continues very firm. A number were purchased for export at 5½c. to 6½c. per lb. for steers, and 4½c. to 5½c. for bulls. Butchers were not paying quite so much for their stock as they were a week ago, offerings here being somewhat larger, particularly of medium and lower grades. Trade was active at 6c. to 6½c. per lb. for choice heaves, 5½c. to 5½c. for fair to good, 4½c. to 5c. for medium, and 3c. to 4c. for common. Offerings of sheep and lambs were limited, and prices held fairly steady at 5c. per lb. for sheep, spring lambs being \$4 to \$6 each, and calves being on the scarce side, at \$2 to \$8 each, according to quality. The supply of hogs was liberal, and the demand from butchers and packers being active, prices were quite firm at 7½c. for selects, weighed off cars, notwithstanding easier advices from abroad. Consumption of meats continues large, owing to the cool weather this season.

Horses.—There is no abatement in the demand for horses. Demand is principally from local sources, although railway contractors have been in the market for several cars of draft horses for outside points. However, it is very hard to get the stock, and, as a result, the actual trading is very light. City carters would buy many more animals, if they were able to get them. Prices continue very firm, as follows: Heavy draft horses, weighing 1,500 to 1,700 lbs. each, \$275 to \$350; light-draft, 1,400 to 1,500 lbs., \$250 to \$300; express horses, \$175 to \$250; common plugs, \$75 to \$150 each, and choice driving and saddle animals, \$300 to \$400 each.

Dressed Hogs and Poultry.—There is no change in the market for dressed hogs. Live being unchanged, dressed may still be had at 10½c. per lb. for fresh-killed, about-dressed, choice hogs, demand for

them being good. The demand for salt and smoked meats is fair. There is not much doing in barrelled pork, and prices are steady at \$20.50 to \$24.50 per bbl. Hams are selling freely at 14c. per lb. for hams weighing over 25 lbs.; 14½c. to 15c. for 25 lbs. down to 18 lbs.; 15c. to 15½c. for 18 lbs. to 12 lbs.; and 16c. for lighter. Bacon is also in good demand, at 10½c. to 12½c. per lb. for green, and 13½c. to 16c. for smoked. Lard is steady at 10c. to 11c. for compound, and 12½c. to 13c. for pure. As a matter of fact, most of the above prices for smoked meats, and even for lard, show an advance as compared with those of a week ago.

Potatoes.—Stock is gradually becoming scarcer, and, as a result, the market grows constantly firmer. This week, sales of mixed white and red were made at \$1.05 to \$1.10 per 90 lbs., car lots, on track, whites being \$1.15, and sometimes \$1.20. Some sell them in a jobbing way, bagged and delivered into store, at \$1.20, others demanding \$1.25, and even \$1.30 when the stock is very fine. Demand is excellent, and hard to fill.

Eggs.—The market continues much the same as a week ago. Demand is unusually good for this time of year. Dealers report that they sell eggs at 17½c. to 18c. for large lots, and 18c. to 18½c. for smaller lots, straight-gathered, candled, being referred to. The selects are quoted at 20c. to 21c. The stock is said to be unusually good for this time of year.

Butter.—There has never been a year when the exports of butter were so light as this year. Up to date, there have been but 52 boxes shipped, as against 32,000 at this time last year, and 35,000 the year before. The make continues small, an unusually large number of the factories having gone over to the manufacture of cheese. It used to be said that the actual cost of butter to the farmer was two and one-half times that of cheese per lb. This being so, it is a wonder that butter factories have not long since given up making cheese. The quality of the grass butter is not yet first-class, the cattle having only been put entirely on grass a week or so ago. Official prices, fixed by the Produce Merchants' Association, are 20½c. for Townships creamery; 20½c. for Quebec, and 18c. to 18½c. for Ontario dairy.

Cheese.—The cheese market continued dull, and the price is declining. The make is said to be about 70,000 boxes behind that of a year ago. Shipments last week were 48,000 boxes, making the total to date, this season, 189,000, as against 258,000 for the corresponding period last season. The make is increasing, however, and prices are at the same time declining. Demand from England is light. Official prices are 11½c. for Ontarios, 11½c. for Townships, and 11½c. for Quebecs.

Flour and Feed.—Dealers report a good demand for flour, and it would seem that there is not a very great surplus. Manitoba strong bakers' is quoted at \$4.50 per bbl., in bags, and patents at \$5.10. Notwithstanding the fact that the greater number of cows are now entirely on grass, the demand for millfeed still seems to be fair, and, as a result, prices are holding firm, at \$21 per ton for Manitoba bran, in bags, and \$22 to \$23 for shorts. Delivery can now be made with reasonable promptness.

Grain.—The grain markets are all settling back slightly, after their recent extraordinary strength. Prices of oats have declined in England, and this affects the local market slightly, so that purchases may be made at 49c. to 49½c. per bushel for No. 2 Manitoba, the same being quoted for Ontario, 48c. to 48½c. for No. 3 Ontarios, and 47c. to 47½c. for No. 4, in store, Montreal.

Hay.—There is very little export demand for hay. Demand has been excellent all spring, notwithstanding the high prices, and, as a result, stocks are pretty well depleted. During the past week, the market has eased off slightly, but is still fairly firm, though some quote the opposite. No. 1 timothy is \$16 to \$17 per ton; No. 2, \$15 to \$16, and clover mixture and clover, \$14 to \$15.

Hides, Tallow and Wool.—There is little or nothing new in hides. Quality is still poor, and demand light. Dealers offer 20c. each for lamb skins, and \$1.10 for sheep, and 13c. per lb. for No. 2 calf skins, and 15c. for No. 1. Beef hides, 8½c., 9½c. and 10½c. respectively,

for Nos. 3, 2 and 1, country take-off, and ½c. more for city. The wool season is just commencing, and dealers are offering 28c. to 30c. per lb., here, for pulled lambs, brushed, and 28c., unbrushed; 28c. to 30c. for Can. pulled sheep, brushed, and 25c. to 27c., unbrushed, and 25c. to 28c. for Can. fleeces, tub-washed, and 18c. to 19c. in the grease.

#### CHICAGO.

Cattle.—Common to prime steers, \$4.75 to \$6.90; cows, \$3.25 to \$4.75; heifers, \$3 to \$5; bulls, \$3.40 to \$5; calves, \$3 to \$7.25; stockers and feeders, \$3 to \$5.15.

Hogs.—Good to prime heavy, \$5.97 to \$6; medium to good heavy, \$5.95 to \$5.97; butchers' weights, \$5.95 to \$6.50; good to prime, mixed, \$5.95 to \$6; light, mixed, \$6.05 to \$6.10; packing, \$5.50 to \$5.90; pigs, \$5.50 to \$6.10; selected, \$6.05 to \$6.12; bulk of sales, \$5.95 to \$6.

Sheep and Lambs.—Sheep, \$5.15 to \$6.30; lambs, \$6 to \$8.

#### CHEESE BOARD PRICES.

Napanee, Ont., 11c. to 11 11-16c. Listowel, Ont., 11½c. Ottawa, Ont., 11½c. Kemptville, Ont., 11½c. bid. Kingston, Ont., 11½c. Victoriaville, Que., 11½c. to 11½c. Madoc, Ont., 11½c. Tweed, Ont., 11 9-16c. Woodstock, Ont., 11½c.

#### BUFFALO.

Veals.—\$5.50 to \$7.50.

Hogs.—Heavy, \$6.10 to \$6.35; mixed, \$6.35; Yorkers and pigs, \$6.30 to \$6.35; roughs, \$5.10 to \$5.35.

Sheep and Lambs.—Lambs, \$5.50 to \$7; wethers, \$6 to \$6.25.

#### BRITISH CATTLE MARKET.

London.—Liverpool and London cables, 12c. to 13c. per lb., dressed weight; refrigerator beef is quoted at 9c. to 9½c. per lb.

#### GOSSIP.

##### ABERDEEN-ANGUS SELL WELL.

At the annual sale, on June 5th, of a draft from the herd of A. C. Binnie & Son, Alta, Iowa, 38 head sold for an average of \$305.50, the six-year-old cow, Imp. Gussie of Kirkbridge, bringing \$1,105, and two others, \$625 and \$900. On June 6th, Jas. Williams, at Marcus, Iowa, sold 43 head for an average of \$153, the highest price being \$380.

John T. Gibson, Denfield, Ont., ordering a change of advertisement, writes: "My Shorthorn cattle, though late getting on the grass, never went out in better condition. The last month before turning out, they had a very liberal amount of roots, and did well from the first. The young grass did not scour them as it generally does when turned out from hay and grain feeding. I have to report the sale of my stock bull, Proud Gift (imp.), to Mr. Peter White, Pembroke, Ont. I got more than three times the amount I gave for him when he was a yearling. Have used him three years, but I know I made a mistake in selling him. He was the most satisfactory all-round bull I ever owned, such a bull as a man only gets once in a lifetime. Mr. White took with him three of his calves—a bull and two heifers. He also bought three heifer calves last year. They are said to have done so well they will very likely be heard from later on. I have some cows in calf to this bull that I will price right. His produce on the farm will show the kind of calves they are likely to produce. We know we have some good milking Shorthorns. The heifer calf that won second at Toronto last year had only her dam's milk. The bull calf Mr. White has just bought is in show fix; the only milk he got was from his dam. The dams of these calves are full sisters, Minas, sired by Prime Minister (imp.), a bull that got some grand breeding cows. Our Lincoln sheep are in almost their usual condition; the show flock going on nicely. We have an order in England for a few tops. These added to what we have will make a strong bunch."



**Life, Literature  
and Education.**

[Contributions on all subjects of popular interest are always welcome in this Department.]

**PEOPLE, BOOKS, AND DOINGS.**

Of inventions, as of the "making of books," there seems to be no end. To the adding machine, which is now in use in many large banks and business houses, has now been added a bookkeeping machine, which, it is said, with very little manipulation, makes all records except the ledger work. Again, in France, a Dr. Marage has invented a real talking machine, one which, upon the blowing of a current of air through it, enunciates all the vowel sounds, the volume of sound depending upon the amount of air-pressure exerted. This machine, which is to be used solely for determining keenness of hearing, is peculiar in that part of it is made up of casts copied exactly from the human mouth in different positions of enunciation, teeth and all, appearing exactly as in the human head.

Lord Avebury, better known as Sir John Lubbock, will celebrate his seventy-third birthday in a few weeks. He is noted as a writer of philosophic books, as a scientist and philanthropist, is head of the great banking-house of Robarts, Lubbock & Co., and has been president of nearly every learned association in Great Britain. The secret of his wonderful achievements lies in the value which he places on time. His industry is, in fact, prodigious, and he is said to employ even his spare moments in waiting for a train in reading or study.

The Canadian Magazine for June contains, as one of its "Canadian Celebrities" series of articles, a fine biographical sketch of the Rev. Dr. A. E. Burke, of Prince Edward Island. Rev. Father Burke is well known through his "Maritime Letters," to the readers of the "Farmer's Advocate."

Through the recent death of the Rev. A. B. Nicholls, husband of Charlotte Bronte, the little museum which enthusiastic admirers of Charlotte Bronte have established in the old stone rectory at the top of the bleak hill at Haworth, has been enriched with a number of interesting relics of the family. Among the most interesting of these is a charming portrait by Charlotte Bronte, who was an artist, as well as a novelist, of her sister Anne. Another is a striking silhouette of the ill-fated Branwell Bronte, cut in black paper touched with gold; also a large plaster cast of a medallion of him, by Leyland.

**AN IDEAL RURAL SCHOOL.**

Those who believe that a common school should be something more than a barn, with windows, black-board maps and desks and stove; who believe that environment tells in the rearing of child-character, and who would like to see the rural school made the social center of its community, may find their desire

realized and their ideals in a large measure justified in the Rittenhouse school, at Jordan Harbor, County of Lincoln, in the Niagara Peninsula of Ontario, a district now boasting, with good claim, the title, "Garden of Canada," and not less honored as the theatre of some of the most thrilling exploits of early Canadian history.

The immediate neighborhood of the school is an early-established settlement of immigrants from the State of William Penn, and broadly classed by the general designation, Pennsylvania Dutch, a name that stands wherever its representatives are known for integrity, stability, thrift, good farming, and good, if somewhat plain, living. This latter characteristic is perhaps hardly true of the younger generation, which, trained in English-speaking schools, has become ameliorated by Anglo-Saxon influence, and combines with the sterling character of its ancestry the polish, mobility and social graces of Young Canada. And right here let us observe that perhaps nowhere is to be found a better illustration of the fact that satisfactory rural conditions can

be found among the Canadian-Pennsylvania Dutch.

So much for the locality. The school itself stands half a mile south of the Lake Ontario shore, on the west side of the townline between the Townships of Clinton and Louth. The school is in Clinton, while an assembly hall, called Victoria Hall, is just across the road, in Louth. On the Clinton side, lying between the school and the lake, is the ninety-acre farm donated by Mr. Rittenhouse to the Ontario Government for the purpose of a horticultural experiment station. Both buildings, as well as two acres of grounds surrounding each, have been provided and equipped with the most elaborate appointments by Mr. M. F. Rittenhouse, a native of this vicinity, who has made a fortune in the lumber business in Chicago, and whose contributions to charity and benevolence in his home land, as well as in his adopted city, are unostentatious but large, including, in one instance the defraying of a High-school student's expenses for several years without allowing the origin of the gift to be divulged. Just how much has been spent on the

organized what it calls a lecture and entertainment course. The evening of May 24th is reserved for entertainment, and the programme of music and literary features this year, in Victoria Hall, would have done credit to any city club.

The schoolhouse is a commodious, handsome, red-brick structure, the class-room of which will nicely accommodate fifty pupils, all provided with single desks. The floor is covered with linoleum, and all the appointments are the very latest and best. In the southern wing is a library containing over 2,000 volumes, costing not less than \$1,500. The northern wing is used as a museum of biological, geological and archaeological curiosities, such as extensive collections of Indian arrow-heads, with the location and date of finding ticketed on each. The school is heated with a hot-water system, and in the basement are modern lavatories.

Outside, the front lawn is profusely embellished with trees, shrubs and grass. At the back, on the portion shown in our picture, is a large playground, a part of which in winter is converted into an open skating rink. This rink was largely patronized last winter by both old and young. A small building at one side affords a comfortable place for putting on the skates. Behind the rink is a small toboggan slide for children, from the platform of which our photograph was taken. At the north, and back of the schoolground proper, is a plot of one acre, where school-gardening is carried on. The whole two acres of land is surrounded by a spruce hedge and spruce trees, with a row of hard maples as well on the two sides and at the rear. Altogether, it is a school to delight the heart of teacher, child and parent. The average attendance at present is thirty pupils. In addition to school-gardening, manual training and nature study have been introduced along lines similar to the system in the Macdonald Consolidated Schools. One teacher has charge of the whole school.

Crossing the road, you enter an arched gateway bearing the inscription, Victoria Hall. This, also, is a beautiful building, containing the caretaker's residence and a fine assembly hall for school concerts, lectures and entertainments, such as described above. It is fitted with opera chairs, a first-class piano, and a stage platform. Here, too, are sheds, a water tank (partly shown in the illustration), hothouse, and plant for acetylene lighting. Half a mile north, at the lake, a gasoline engine is used for pumping water into the large tank. There is a hot-air engine in the basement of the hall, used for pumping rain water into a smaller tank in the hall attic. The two-acre grounds include a fine grove of trees on the north.

It is superfluous to add that the school is popular, as is also the hall, not only in the immediate neighborhood, but for many miles around. The villages of Jordan Harbor, Jordan Station, Vineland, Campden and Beamsville, as well as the intervening country, all take a kindly interest in this hall, and help to fill it to



Victoria Day at the Rittenhouse School, Jordan Harbor, Ontario.

only be produced in communities where thrift and good farming provide the means for indulging a wholesome taste for the aesthetic, so that the people may cultivate and gratify their tastes for music and art, as well as good furniture, carriages and other material comforts, without facing a grim spectre of shanty, poor-house or prison at the other end of the hall. The thrifty inhabitants of this favored section consider it a religious duty to live within their means, and to make money before spending it. The logical result is plenty of money to spend, and that they use it to good purpose is apparent to the ever-welcome visitor who is entertained in their palatial homes or sits at their sumptuous board. And the visitor will soon be struck with another fact. It is said the Dutch are slow, phlegmatic, and devoid of sense of humor. That may be true to some extent of the ancestors in Holland and Germany, but, whether owing to the Pennsylvania or the Canadian environment, an unmistakable change has been wrought. For drollness and shrewd point, for good nature and heartiness, it would be hard to excel the streak of native

school at Jordan Harbor, Mr. Rittenhouse has never made known, but we have pretty reliable authority for placing the estimate at \$25,000.

An excellent half-tone illustration of a front or roadside view of this school appeared in "The Farmer's Advocate and Home Magazine" of May 3rd, 1906. The accompanying engraving shows a snapshot, taken from the toboggan-slide in the rear of the playgrounds, on Victoria Day, 1907, by a member of our editorial staff, who had the good fortune to join the crowd of several hundred people assembled from a radius of five or ten miles to celebrate the 24th of May with athletic sports in the afternoon, and with an evening programme, rendered by a local organization, known as the Lake Shore Literary Society. A word, in passing, about this latter institution. Forty years ago, in Mr. Rittenhouse's schoolboy days, a very successful literary society was conducted in the old schoolhouse, which, by the way, is still standing. Some twenty-five years back the Lake Shore Literary Society was started, and has continued under that name ever since. For three winters the Society has

overflowing whenever a deserving programme is furnished. The school is not merely educating children, but proving a social rendezvous for the country round about. It is fulfilling the mission of the ideal rural school.

The question arises, cannot such schools be multiplied in Canada? The immediate answer from many quarters will be: It costs too much. Granted that \$25,000 is out of the question for any ordinary district, cannot a moderate approach to these conditions be attained? When the average ratepayer learns to prize results above cost, we believe it will, though not even then, we fear, under the existing regime of small sections; but under the new system which is gaining ground in the United States, and which Sir William Macdonald is laudably endeavoring to introduce into Canada. That is, the consolidation of several small sections into one large district, to which pupils may be transported in vans. Here a good school may be provided and liberal equipment secured, first-class teachers employed at reasonable salaries, and such subjects as school-gardening, nature-study, manual training and domestic science introduced, so as to bring our rural education more nearly into accord with the requirements and the spirit of the times.

#### REV. FATHER BURKE ON "CARMICHAEL."

I have just arisen from the reading of Anison North's clever book, "Carmichael," and, whilst from the point of view of the Catholic priest, it has, in its religious indifferentism, some slight disfavor, as a strong, clean, invigorating and uplifting rural tale, I have not enjoyed anything so thoroughly for many a day. The descriptions of farm life in Ontario, built upon conditions of recent pioneer years, as well as the mental and moral attitude of the class dealt with, so closely resemble our own here in Prince Edward Island, especially up to a date well within everybody's memory, that one seems to be a spectator in the scenes so artistically spread out before him, and, in such circumstances, the interest cannot fail to be other than personal.

It is not often that a book arouses the finer emotions so effectually as this one does. The departure of Dick Carmichael, and the reconciliation, ultimately, of the sadly-estranged families, when hatred's cruel dagger was so completely withdrawn from the heart of Peggie Mallory's mother, and she proceeded to the old enemy's fortress to capitulate unconditionally, whilst certainly not the most powerful passages in the story, were those which stirred our own soul to its greatest depths. Without doubt, Mrs. Jamieson's plight, and that of the butterfly, Gay Torrence, would appeal to the genuine sorrow of others. And the death of Sandy Dogd, with the simple and sincere sympathy-giving of that pastoral community which attended it, is as tenderly if not as elaborately painted as Dickens' death of "Little Nell," or that of "Little Jim," either.

The moral of the book, which at first I felt sure was to be drawn against the unfortunate and fatal Puritanism in family-having which has invaded Ontario, in even its rural sections, is formally directed against even an older and no less properly appreciated vice, the sin of rash judgment, which from the beginning has brought so much misery into the world, and which, unfortunately, notwithstanding all the open profession of brotherly love, is, perhaps, in the most insidious form, more rampant amongst us than ever. This work shows it up ethically, in its true light, and the plainness of the lesson must surely keep many readers from future serious lapses.

It is seldom that one reads a romance which he can conscientiously recommend to all classes of readers alike; this is one of the really readable. It is not so straight-laced, either, if I may so speak, as not to

be absorbingly interesting from the first to the last line. And, what is of equal value with other phases of merit, it splendidly maintains the supremacy of agricultural occupation over all others. It should be and will be one of the most successful books of the season. And, as a perpetual inspiration, it will doubtlessly find a place in the family library of every Canadian farmer's home. The letterpress of the work is superb; the thoroughly-equipped bindery of Wm. Weld Co., Ltd., London, Ont., turns it out.

A. E. BURKE.

This book will be sent, postpaid, to any subscriber for \$1.25. Address "The Farmer's Advocate," London, Ont.

### Current Events.

Lord Dundonald has retired from the British Army.

Several members of the Red Hussars, the Czar's favorite regiment, have been arrested for mutinying.

The Franco-Japanese entente has been formally completed by an agreement signed on June 10th.

The Czar has given his approval to a project for the construction of a tunnel under Behring Strait.

Twenty-nine lives have been lost and much havoc wrought by a tornado and coldburst which recently passed over parts of Illinois, Kentucky and Indiana.

A specific for spinal meningitis has been discovered by Prof. Wasser, of Berlin, head of the Prussian Institute for Infectious Diseases. The cure is in the form of a serum which is injected into the blood.

Prince Fushimi, of Japan, has been received with royal honors at various points of his progress through Canada. Before leaving Ottawa, he donated £300, to be given to charities in the various cities which he visited.

#### THE FARMER IS KING.

Oh, the mines may be rich with deposits of ore,

With ingots of silver and nuggets of gold;

And iron and copper, from shore unto shore,

From the depths of the earth may be constantly rolled;

But the wealth of the world is an atom compared

With the millions of dollars that annually spring

In the track of the plow, and the trail of the rake,

And the path of the hoe, for the farmer is king.

His throne is a stack of the sweet-smelling hay,

His crown is the gold of the carrot and corn,

His scepter a sheaf of the newly-cut wheat,

His audience chamber the meadows of morn;

The oats and the barley await his command

Their slender green spears from the darkness to bring;

The orchards drop apples of gold at his feet,

And all nature proclaims that the farmer is king.

—Mina Irving, in Leslie's Weekly.

#### APACE WITH SCIENCE.

Doctor.—What? Troubled with sleeplessness? Eat something before going to bed.

Patient.—Why, doctor, you once told me never to eat anything before going to bed.

Doctor (with dignity).—"Pooh, pooh! That was last January. Science has made enormous strides since then."

## The Quiet Hour.

### WHAT FRUIT IS OUR LIFE PRODUCING?

When He came to it, He found nothing but leaves.—St. Mark xi.: 13.

Behold, these three years I come seeking fruit on this fig tree, and find none: cut it down; why cumbereth it the ground.—St. Luke xiii.: 7.

"Nothing but leaves! The Spirit grieves

Over a wasted life;

Sins committed whilst conscience slept,

Promises made but never kept,

Hatred, battle, and strife—Nothing but leaves!

"Nothing but leaves! No garnered sheaves

Of life's fair, ripened grain;

Words, idle words for earnest deeds;

We sow our seeds—low! tares and weeds

We reap with toil and pain—Nothing but leaves!

"Nothing but leaves! Memory weaves

No veil to screen the past;

As we trace our weary way,

Counting each lost and mis-spent day,

Sadly we find at last—Nothing but leaves!

"And shall we meet the Master so,

Bearing our withered leaves?

The Saviour looks for perfect fruit—

We stand before Him humble, mute,

Waiting the word He breathes—'Nothing but leaves.'

One of our Lord's miracles of destruction was the withering of the fig tree which gave a promise of fruit, and yet produced nothing but leaves. This stands forever as one of His many warnings that sins of omission are at least as great as sins of commission; that it will not satisfy Him to have servants who are not actively bad, and he expects them to be actively good. When for many years a fig tree produces no fruit—nothing but a fair show of leaves—the order is given (a terrible order), "Cut it down, why cumbereth it the ground?"

We cannot expect to escape observation; each life is closely and constantly examined. What will be the Master's verdict in our case? is a solemn question for each of us. It is not enough to be constantly busy. It is possible to rise early, and late take rest, and work all day long, and yet live only to heap up treasures for ourselves. If we are busy about our Master's business, then all will be right. We should hold ourselves always at His disposal, saying—as David's servants said to him—"Behold, Thy servants are ready to do whatsoever my Lord the King shall appoint."

Our Lord's first recorded words are the declaration that he must be about His Father's business, and in the worship of Nazareth or on the altar of Calvary, He never wavered in the pursuit of that high ambition; until the great climax came, and He was able to say, confidently, "It is finished."

First, then, we must be "ready" to do what our Master shall appoint, not choosing our own work, but following always the guiding pillar of God's providence. If we are ready and willing to do not our own will, but His, praying to be led where He wishes us to go, there is little fear of our making serious mistakes. Our Lord gives us an example of this readiness to accept interruptions as part of the day's plan. When on his way to raise the dead child He stops willingly to cheer and help a poor woman; when escorted by an excited crowd of admirers He does not fail to hear and help a blind beggar; when resting by Jacob's well He is not too tired to instruct an ignorant and sinful woman. And so it always was with Him—He was never too busy or engrossed with anything that interested Him to be kind and obliging to anyone.

It is well to remember that we are really "servants," and, therefore, our time is not our own; we are bound to do cheerily and without necessary delay whatsoever our Lord the King shall appoint. If the business He gives us to do seems trivial to us, what does that matter, our part is simply to obey orders and

not ask questions. As Miss Havergal says: "If He appoints me to work there, shall I lament that I am not to work here? If He appoints me to work in-doors to-day, am I to be annoyed because I am not to work out of doors? If I meant to write His messages this morning, shall I grumble because He sends interrupting visitors, rich or poor, to whom I am to speak, or 'show kindness' for His sake, or at least obey His command, 'Be courteous!' If all my members are really at His disposal, why should I be put out if to-day's appointment is some simple work for my hands, or errands for my feet, instead of some seemingly more important doing of head or tongue?"

If our lives are to be fruitful—pleasing to Christ and helpful to our fellows—they must first of all be obedient. A soldier must always be ready to go or stay in simple obedience to orders.

"Thy servants militant below have each,

O Lord, their post,

As Thou appoint'st, who best dost know the soldiers of Thine host.

Some in the van Thou call'st to do,

and the day's heat to share;

And in the rearward not a few Thou only bid'st to bear.

A brighter crown, perchance, is theirs to the mid-battle sent;

But he Thy glory also shares who waits beside the tent;

More bravely done (in human eyes), the foremost post to take;

My Saviour will not those despise that suffer for His sake."

This is such a valuable talent that it seems dreadful to think that anyone can speak lightly of "killing time," as though the supply were inexhaustible. But it is possible to waste time without knowing it—to lay it out to no good purpose, and leave the world no better from our living in it.

Let us never be like Martha—too busy to sit at the Master's feet, hearing and speaking to Him. Whatever else we have to leave unread—even though it may be "The Farmer's Advocate"—at least let us find time to study the Bible diligently. If the Master has put some of His little ones in our care—in the home or the S. S.—let us find time to tell them about Him, and let us take time to prepare the S. S. lesson carefully. As someone has said: "Is the work of training young, eager souls of less consequence than the trimming of a hat which must be done for Sunday," and which took up all Saturday evening?"

"From the palace to the city on the business of thy King

Thou wert sent at early morning to return at evening.

Dreamer, waken!—loiterer, hasten!— what thy task is,

understand!

Thou art here to purchase substance, and the price is in thy hand.

Has the tumult of the market all thy sense and reason drowned?

Do its glistening wares attract thee? or its shouts and cries confound?

Oh! beware lest thy Lord's business be neglected while thy gaze

Is on every show and pageant which the giddy square displays!"

HOPE.

#### TRADE TOPIC.

A CASH-PRIZE COMPETITION.—Lady readers of "The Farmer's Advocate" will be interested in the special advertisement of the McClary Manufacturing Company, of London, Ont., in this issue, offering \$165 in four cash prizes, ranging from \$65 to \$10, for the most suitable name for a new modern steel cooking range, patterns of which are now under construction. Here is a chance to compete for clean money in a fair field, with no favors, the company being of the highest standing in character, and the largest makers of their specialties under the British flag. Let the lady readers of this paper look up the advertisement, note the terms, and promptly get busy brushing up their mental equipment, and mail their selections (not more than three names to be suggested by one person, nor more than eight letters in one word, or ten letters in two words) to the address of the company, within two weeks from the date of this paper, June 20, and be sure to mention "The Farmer's Advocate."

## The Young People's Department.

All letters intended for Young People's Department must be addressed to Cousin Dorothy, 52 Victor Ave., Toronto.

### ON HOBBIES.

#### II.

Some people have a hobby for collecting books—old books, rare books, or books in wonderful bindings. But this is not a cheap hobby, and we had better let it alone. Of course, we want to have a few books of our own, but we won't buy them for the binding, or because nobody else has anything like them. We buy them to read them—that is our hobby. I am not talking to the poor people who don't like reading; they would not get as far as this without yawning, and looking about for some other amusement.

"Oh, yes, I just love reading," you often hear a girl say, very complacently, and you think you have come across a very intellectual person, until you hear the names of the books she loves. If they are all paper-covered novels, by writers you never heard of, you don't think her much of a reader, even if she is buried in them in all her spare minutes. That kind of reading does you more harm than you think, girls, and it is the same with the trashy detective stories many boys read. They are like cheap candies, they spoil the taste for anything pure and wholesome. Tired people may find such books useful, when they go for a holiday, and don't want to use their brains, but young people, like you and me, ought never to need to waste our time over them. It is a real temptation, I know, but do shut the silly book up, if you don't want to turn out an empty-headed, silly woman, or a man who takes no interest in anything but his local newspaper. For boys soon find out the emptiness of trashy books, and having spoilt their taste for anything else, stop reading altogether. There are plenty of good novels, which are just as entrancing, and take you out of yourself just as completely as these poor ones. If you have a bad taste in books, why don't you set to work to acquire a good taste? It will be quite the most useful thing you ever did for yourself. Get a good novel, such as Kingsley's "Westward Ho!" Dickens' "Martin Chuzzlewit," Scott's "Ivanhoe," or Blackmore's "Lorna Doone," (there are plenty more to choose from, if you can't get one of these), and settle firmly and determinedly that you will read it right through, whether you like it or not, and when you finish it, even if you don't like it, start firmly at another. Don't give up because the first chapters are

uninteresting. The reason they are so is your bad taste in reading, which, remember, you are trying to cure. When you really come to enjoy the books I have mentioned, and others like them, I think there is very little danger of your taking any more interest in a trashy book.

But a word to those who do know a good book from a bad one, and who have perhaps got past the story-reading stage, and take great pleasure in Essays and History and Travels, and such-like. Don't be conceited. This hobby, above all, should not be used to bore other people. After all, it is nothing to take any special pride in, that we can enjoy the writings of Carlyle, or Tennyson, or Shakespeare. It ought to take the conceit out of us to think that we could not even write a sentence to compare with theirs. To be able to read is a common accomplishment, and it is fortunate for us if we can get the greatest amount of pleasure for ourselves out of it. Those who don't care for reading are very likely a great deal wiser than we are, and know far more about the practical affairs which keep the world going. You can't learn very much from books, except how to think (a very useful piece of knowledge, all the same), and the people who don't read, but understand their own business thoroughly, and are doing it, are just as useful and admirable people as a great reader could possibly be. (If you don't agree with me, we might have a debate on this subject!) In fact, a person who neglects practical work for the sake of reading is perhaps one of the most uninteresting, as well as useless, people you could meet.

The question of what books to read is too large to take up all at once. As time goes on we will discuss different

authors, and make some lists. "New books" are the great trouble of many young people in the city. One must read every new novel as it comes out, in order to be able to talk about it. Generally, they contain more to talk about than to think about. The advantage of the country is that we can read what we like, without having to look at the date of publishing first. A book is just as good when it is a few years old, and, I suppose, the town libraries wait to see what a book is worth before they get it. I should like to talk a great deal more about my favorite hobby, but it is a good thing to know when to stop, and we shall, I hope, have many more chats about our old friends, the books. C. D.

A great soul will be strong to live, as well as strong to think.—Emerson.

### THE WHITE OWL.

#### I.

When cats run home and light is come,  
And dew is cold upon the ground,  
And the far-off stream is dumb,  
And the whirring sail goes round,  
And the whirring sail goes round;  
Alone and warming his five wits,  
The white owl in the belfry sits.

#### II.

When merry milkmaids click the latch,  
And rarely smells the new-mown hay,  
And the cock hath sung beneath the  
thatch  
Twice or thrice his roundelay,  
Twice or thrice his roundelay;  
Alone and warming his five wits,  
The white owl in the belfry sits.  
—Tennyson.

Fair day's wages for fair day's work! Alas, in what corner of this Planet, since Adam first awoke on it, was that ever realized? The day's wages of John Milton's day's work, named Paradise Lost and Milton's Works, were Ten Pounds, paid by instalments, and a rather close escape from death on the gallows. Consider that: it is no rhetorical flourish; it is an authentic, altogether quiet fact,— emblematic, quietly documentary of such, ever since human history began.—Carlyle's "Past and Present."

It is a good saying that where there's a will there's a way; but while it's all very well to wish, wishes must not take the place of work.—Sir John Lubbock.

### A REAL NEWSPAPER.

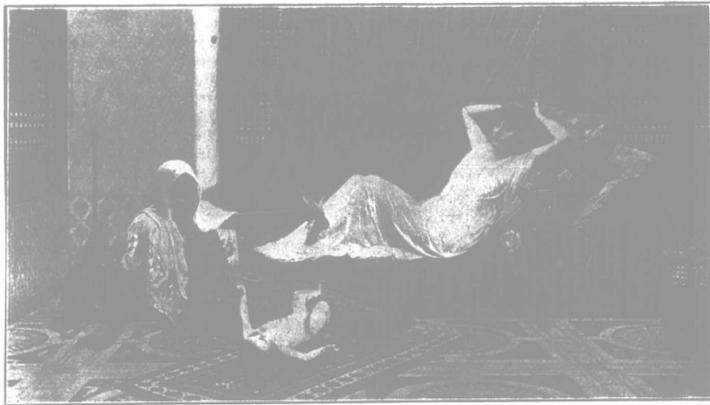
The proprietors of a Siamese newspaper have distributed handbills containing the following notice:

"The news of English we tell the latest. Writ in perfectly style and most earliest. Do a murder, git commit, we hear of and tell it. Do a mighty chief die, we publish it, and in borders of somber. Staff has each one been colleged, and write like the Kipling and the Dickens. We circle every town and extortionate not for advertisements. Buy it. Buy it. Tell each of you its greatness for good. Ready on Friday, Number first.—[Bangkok Times.]

### CLEVER, BUT TROUBLESOME.

The small red ant, the pest of the pantry in country or town, is as clever as she is bothersome, says a writer in the New York Tribune. Many a time a despairing housewife has marked a path of tar around the legs of tables or refrigerators, to find next day that the engineering corps had brought grains of sand to build a bridge over the tar, and that the workers were merrily carrying off the sugar, syrup or whatever they had decided to store away for winter. Once, when sand was lacking, it was found that the workers had returned to their village and had brought over a drove of their cows and had stuck them in the tar, cheerfully sacrificing them to the urgent needs of commerce.

Learning that chalk lines drawn on the floor would keep the ants away, the acid in the chalk being too strong for the sensitive ant noses, a man once drew a thick line around a party of ants that was foraging across the kitchen floor. He kept them there several days, as none would cross the line. Finally, feeling sorry for them, he chopped up some fine grass and dropped it in the circle, that they might eat and keep them from starving.



"A New Light in the Harem."

(From a painting by Frederick Goodall, R. A., 1822-1904. Valued at \$20,000. Exhibited at Toronto Exhibition, 1906, as a loan from the Walker Art Gallery, Liverpool, England.)

## Health in the Home

### HOUSEHOLD SANITATION.

(By Mary E. Allen-Davidson, M. D.)

#### VENTILATION.

Especial care should be taken with the ventilation of sleeping-rooms, and for many reasons. Because the vitality of the body is low at night. Every organ is relaxed, and often extreme weariness is present. Because the resisting power against disease is lessened. Because we are helpless during sleep, inert, do not move from place to place, so as to change faulty conditions or impure air. Because the body, to be healthy, must have health-giving sleep, must be rested, refreshed and reinvigorated for the new day's work; and this is impossible in a close, stuffy, overcrowded, unventilated sleeping-room.

Mothers who are extremely careful of their children in other ways will crowd several of them into a small room, carefully close every window, perhaps the door, and leave them to breathe over and over again the poisonous exhalations from their own lungs, also the odors and organic particles from their bodies. Is it any wonder that they toss, grit their teeth, cry out, and spend the whole night in a fitful slumber, and, at last, wake up irritable, limp and unrefreshed, without a healthy appetite for breakfast?

Also that they contract coughs, colds, bronchitis and other throat troubles so readily? It is now conceded that consumption is caused largely through lack of plenty of pure air, and this occurs mostly at night, by breathing air that is contaminated by the respiration and transpiration of human beings. There is always an army of tubercle bacilli encamped around us ready to storm the breaches. If the resisting power is normal, they are thrown out or destroyed. Our numberless vigilant body-guard of "little corporals," the leucocytes or white corpuscles, patrol all the liquid highways of our body; in the minutest blood-vessel there, they are guarding the gateways of life and destroying or throwing out every microbic enemy. If these corpuscles are well nourished by pure blood, their work is always well done. But if the blood be poisoned, its food value is lessened; it loses its tonic and recuperative life-giving properties. The tissues are starved and poisoned, the resisting power is lessened and consumption gets a hold on the weakened system. To foul air, darkness and dampness, the great white plague owes its power. We have all gone into bedrooms, especially where several occupied the same room, where the air was so fetid as to cause nausea after coming from the pure outside air. See to it that a free access of pure air is secured to your sleeping-rooms day and night. Use the ventilating-board, previously de-

scribed. Do not close the windows, except to prevent direct drafts. Moderately cold air is good for the lungs, as it expands in the air cells by being heated to the body temperature, and so causes expanding and contracting movements that tone up the cells and aid them in their work of throwing off waste material and taking in food—the purifying oxygen.

Every morning the bed coverings should be removed—not just thrown back, all blinds sent to the top, every window and door opened, and the room thoroughly windswept. Shake your coverings, and leave them in the sun and wind.

The bedroom should be used only as a sleeping-room. No clothing should be hung on the walls, no trunks or boxes stored in it.

Never use the same underwear at night that is worn during the day. Put your day clothes where they can be aired before morning—not in a heap beside your bed. Hang the nightdresses in the air and sunlight, while the bed clothes are airing. When doing up the room, don't roll the nightdresses into a bundle and shove them under the pillows or under the spread; but hang up in an airy closet (never keep the closet doors shut—these should have a ventilator in the ceiling), or if you haven't one, hang over the foot of the bed where they can be in the changing air currents.

Empty slops as soon as you can. This should be done first thing after breakfast,

as these foul the air. Be sure to wash out and dry with a cloth kept for this purpose. Wash cloth, and hang outside when through. Drop a little carbolic acid in your slop pail after emptying the slops. Pour in boiling water, cover, and let stand for a while; then empty and leave outside in sunlight. This will keep the slop pail that it will be clean, and not a source of contamination. Never leave slop pails standing, but empty at once, and never keep them in the house when not in use.

Don't be in a hurry to make up the beds. Give them plenty of time to air. Carry bedding outside frequently for a good freshening up.

The next and last talk will be on food contamination and personal cleanliness.

### RECIPES.

Macaroon Cakes.—One pint peanut kernels rolled fine,  $\frac{1}{2}$  lb. sugar, 3 eggs, butter size of a walnut, 8 tablespoons Five Roses flour. Drop on greased tins.

Graham Bread.—Three cups Graham flour, 2 cups Five Roses flour, 1 tablespoon brown sugar,  $\frac{1}{2}$  cup New Orleans molasses, with  $\frac{1}{2}$  teaspoon soda mixed in, 2 cups lukewarm water, in part of which dissolve 1 yeast cake. Beat all thoroughly, and pour into two greased bread pans. Set to rise for about three hours, until very light. Bake one hour.



Standard Time everywhere is **ELGIN** Time

In every time belt between New York and San Francisco—Eastern, Central, Western and Pacific—the Elgin Watch is the standard timekeeper.

Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. An interesting, illustrated booklet about watches, sent free on request to

ELGIN NATIONAL WATCH CO., Elgin, Ill.

## What Would YOU Do

without bread, or if the bread you had were poor? Your meals would seem tasteless and unsatisfying, and you would soon lose both appetite and health, for poor bread is worse than none at all. It is, therefore, important that you eat only the best bread obtainable. This is made of "Five Roses" Flour, and will make a tasteless meal seem dainty, and plain food appetizing.

Ask your grocer for a 7-lb. bag to-day.

LAKE OF THE WOODS MILLING CO., LIMITED.

## SAVED \$55.00.

A MAGNET user wrote us that he wanted to get a larger size, owing to the increased number of cows in his dairy. We informed him that he **did not require to change his machine**, that his present one would do, and that we could increase the capacity, **by changing the skimming device in his present bowl**, which would only cost him a few dollars. We made the change, and after a full trial he writes us:



"I am more pleased than ever with my MAGNET, it skims the increased quantity, turning as easy as it did before, and cost me just \$55.00 less than my neighbor paid for exchanging his small machine for a larger one; of course his was not a MAGNET, and the whole machine had to be changed."

C. C. Diefenbacher, of Hawkesville, Ont., writes us on June 6th, 1907:

"I have used a MAGNET in my dairy over eight years. Never missed a skimming, and no cost for repairs. Takes all the butter-fat out, and turns easy. I like the double support to the bowl. The square gear suits me; would not buy a worm-gear machine at any price. Desiring to get a larger machine, I was glad to find it was not necessary to get a new machine, and that I could get the capacity of the present MAGNET increased at the cost of a few dollars, which I have done, and it is working fine."

Remember the MAGNET Cream Separator will not wear out in fifty years' use.

THE PETRIE MFG. CO., LIMITED.  
FACTORY AND HEAD OFFICE: HAMILTON, ONTARIO.  
Branches: Winnipeg, Man.; St. John, N. B.; Calgary, Alta.

## The Ingle Nook.

Notwithstanding the cold, unpleasant spring, is there a farmer-woman anywhere, I wonder, who is not glad to be living in the country during this season of growth and freshness of verdure everywhere? The softness of the tender grass, the satiny texture of the crinkly leaves, bronze or delicate green, seem so much more appealing, somehow, than anything that can come later. There is the glory of the autumn, to be sure, but it is a sort of glory which gives one a feeling of pensiveness, almost of sadness. "Beauty sleeping on her bier" cannot arouse one's gladness of life as can beauty alive, radiant, laughing in spring rains, and throwing apple and lilac blossoms everywhere. Poor little apple blossoms—they have had a rather hard time this spring, and yet they have come out, fresh and sweet as ever, teaching us that there are things which cannot be discouraged, even by cold winds and adverse days.

Speaking of enjoyment of rural life, have you noticed how steadily, of late years, a little fairy has been whispering of it in the cities? The time was when all happiness (among city folk, of course) was thought to be locked up in the towns. People never dreamed of having a "little place" out somewhere in the woods, to which they might repair for freedom and quiet, and unless they could afford to take a yachting trip or a jaunt to Europe—to visit more cities—they stayed in town, summer and winter. Nowadays, even in our Canadian cities, which, notwithstanding their rapid development, are, as yet, mere infants among the metropolises of the world, people are simply not in the fashion at all unless they can go off somewhere for the summer months, to cottages or summer hotels far from the jangle of street cars and sound of whistles.

In the larger places, the fashion obtains still more strongly. Writing of it in Harper's lately, as it affects Old London, Mrs. Cornwallis-West, a well-known society leader of the great metropolis, said:

"Reversing the old order of things, people are beginning to let their town houses for the summer, that they may enjoy the natural beauty of the country in preference to the hot, dusty, and noisy pleasures of the town. The summer season is gradually becoming shorter, and being shorn of many of its glories. Two principal reasons can easily account for this: one is the material discomfort of London with its increasing traffic and noise, and the second is the growing love for open-air life and pastimes. Motors have made the country so accessible that it has opened the eyes of all sensible people to the folly of wasting weeks, if not obliged to, in a hot, evil-smelling, and noisy metropolis. Even during the few weeks when the Season, with a big "S," is at its height, the fashionable world flies from it every Saturday to Monday. Innumerable are the week-end country-house parties, with golf, lawn-tennis, or the river to amuse and keep one out-of-doors. Mothers with broods of unmarried daughters find this kind of entertainment a better market to take them to than the heated atmosphere of the ball-room, which the desirable partis shun for the greater attractions of fresh air and exercise."

A different sort of life this, of course, from the life of the farm, and yet are not the best things that these people find in their rural haunts free to all, the pure air, cool shade of the trees, the murmur of the brooks and splash of waves by the lakeside, the green of earth and blue of heaven? And in their work to keep amused—for it is a work—there is, perhaps, not so much more pleasure, after all, than in that of the little woman who loves to putter about in her garden, watching the tulips and forget-me-nots and warm June roses spring into beauty under her hand. You remember the passion of Elizabeth for her German garden? Yes, and I'll warrant you have understood it, too, in your own passion for your own little plot. You may not be able to play golf as those "summer" folk over on the hillside are doing. But you might not like golf anyway. You may be taking far more real pleasure here in your garden, or in the rollicking picnic "got up" now and again among your neighbors, or in sit-

ting with a book back by the brookside, with a green tree over your head. You see, it is hard to judge of just how enjoyable things may be. There may be some very much bored or very jealous and unhappy people among those golfers as well as some very merry and joyous ones. So is not the best way to be just as happy as we can wherever we may be placed, living our own lives without envy and not slighting the things we may enjoy?

By the way, does not that concluding sentence in the quotation from Mrs. Cornwallis-West amuse you? I wonder how those mothers feel who know that they are thus peddling their daughters out to "market,"—and the daughters, too, who feel that they are being thus put on exhibition.

It's a queer old world, and I suppose many mothers feel that this is the very best thing to do, but really it seems as though the girl who can go on her way independently, without being a part to such machinations, must be the one who can have the most self-respect. Do you not think so? DAME DURDEN.  
"The Farmer's Advocate" office, London, Ont.

## OUR SCRAP BAG.

For our scrap bag this week I have picked up but two hints: (1) For blacking stoves, put equal parts of vinegar and linseed oil in a bottle, shake well, and apply to the stove with a soft cloth. I have never tried this, but have heard that it answers very well for the kitchen stove, which is so hard to keep clean. If any of you try it, will you be kind enough to report? (2) Have any of you ever tried making corset covers out of old shirtwaists? If not, just try one the first time you have any apparently ready for the rag-bag. Take out the sleeves, which are likely to be the most worn, cut down at neck and back to the required curve, and edge all around with beading and lace or embroidery. Last of all, run white ribbon through the beading, and draw into place.

## Address Wanted.

Will Miss Amy F. Wilkinson kindly send her address to this office? D. D.

I trust the Chatterers will not forget to come with their difficulties to the Ingle Nook. I am here to find out things for you, and when I fail in obtaining the answer to a question, some other Chatterer is almost sure to be ready with it. So it is all the same in the end, isn't it? I will also be pleased to launch any topic or discussion which any chatterer would like to hear threshed out. In short, I am lonely for some of my Chatterers. They have been forgetting us all lately.

## COMMON THINGS.

The sunshine and the gentle rain,  
The clear bird song that hails the morn,  
The meadow land with flower stain,  
The swaying banners of the corn,  
The grass that whispers to the breeze—  
What common, common things are these!

The broad, blue mirror of the lake  
That smiles back at the sleeping sky,  
The billows, too, that leap and break,  
And fling their foamy jewels high;  
The silver clouds that one by one  
Toss back the lances of the sun;

The stars that blaze as jewels blaze,  
And make the world old mystery,  
While they, on their appointed ways,  
Go speeding through eternity  
Across unfathomed seas of space  
On paths that we but dimly trace—

All these are common—brook and bird,  
And rose of red, and meadow green;  
So common that they seem unheard,  
So common that they seem unseen,  
And yet there is no day or night  
But borrows all of their delight.

No common thing is held apart  
From us, or pent with lock and key,  
But in the goodness of His heart  
They are all made for you and me  
It always seems God loves the best  
The things he makes the commonest.

—W. D. Nesbitt.

### Had a Nasty Bronchial Cough

As An After Effect of Pneumonia— Nothing Proved Effective Until Dr. Chase's Syrup of Linseed and Turpentine Was Used.

Many a mother can say, as does Mrs. Harker in the following letter, that Dr. Chase's Syrup of Linseed and Turpentine has proven a friend to her in time of colds with the little ones.

Mrs. Walter Harker, Sydenham, Frontenac County, Ont., writes:

"Dr. Chase's Syrup of Linseed and Turpentine has proven a friend to me in times of colds with my little ones. I have tried many others, but have found none just as good. My little boy, about a year old, had pneumonia, and was left with a nasty bronchial cough, but Dr. Chase's Syrup of Linseed and Turpentine is helping him wonderfully, and I am sure it will cure him.

"We have also used Dr. Chase's Kidney-Liver Pills with splendid results, and have great faith in all of Dr. Chase's medicines."

Because of its exceptional success in the cure of croup, bronchitis, whooping cough, asthma and severe coughs and colds, Dr. Chase's Syrup of Linseed and Turpentine is the "standby" for such ailments in the great majority of homes; 25 cents a bottle, at all dealers, or Edmanson, Bates & Co., Toronto.

### About the House.

#### THE BUFFALO CARPET BEETLE.

Mrs. J. M. Halton Co., Ont., has sent some specimens, which she found when house-cleaning in a clothes-room. They are different stages of this very destructive enemy of the housekeeper, which is now commonly found in all parts of the country. The hairy grubs that were sent are the larval form and work in carpets, woollen clothes, furs, and other fabrics. At this time of year the beetles, which are tiny little creatures, black in color with a red stripe down the middle of the back, are frequently found in the flowers of tulips and the blossoms of mountain ash, horse-chestnut, etc. They come into the houses through the open windows, and usually lay their eggs in the carpet nearest where they enter. These soon hatch out into black oval worms, covered with short, stiff bristles. These creatures are very hard to get rid of when they have become numerous in the house. It is a good plan to protect the windows with fine mosquito netting to prevent their coming in. If they are already in the house, all the carpets and rugs should be taken up regularly and thoroughly beaten out-of-doors. After sweeping, the floor should be scalded with hot water, and, when dry, the cracks may be treated with benzine or gasoline. In chests, drawers, trunks, etc., it has been found useful to keep either moth balls or small bags containing ground cloves, the smell of which will prevent the beetles coming in, but these materials will not kill the worms if they are already there. If the carpet is found to be infested after shaking and relaying, it is a good plan to lay a damp towel on the edge of the carpet and iron it with a very hot iron. The steam thus produced will cook and thus destroy any eggs that may remain. By going round the edges of the carpet in this way, a large number of the eggs will, no doubt, be destroyed.

In case of infested trunks or chests, an excellent plan is to procure some bisulphide of carbon. Lay a saucer on top of the contents, pour a few tablespoonfuls of the liquid into the saucer, and close tightly. This should be left for 48 hours, and then opened, either in a room with a thorough draft through it, or out-of-doors, in order to carry off the fumes. It must be borne in mind that the fumes from this substance are very inflammable, and, when mixed with air, explosive. Care must be taken, therefore, not to use it where there is any fire or light of any kind. The safest plan is to employ this remedy in an out-building, where there is no danger from a lamp or other fire. The specimens found in a mud-hornet's nest belong to a similar insect, another species of Anthrenus, the genus to which the Buffalo carpet beetle belongs. These may have been put in by the hornet as food for the young, but more probably they found their way in themselves in order to feed on the contents.

C. J. S. BETHUNE.

O. A. C., Guelph, Ont.

#### MOSQUITOES.

(Condensed from a Bulletin issued by the New Jersey Exp. Station.)

Within recent years, an unusual interest has been developed in the destruction of mosquitoes, on account of the fact that they are agents in the transmission of malaria and yellow fever, as well as great sources of annoyance to man. Methods for their extermination have been studied at several experiment stations. In Michigan, it was found that the usual remedies recommended for mosquito extermination, such as draining, treating pools with petroleum, and introducing fish into ponds, were quite successful. When kerosene was applied to water for the destruction of mosquito larvae, it was found that its effects lasted for about three weeks. Much of the vegetation with which the oil came in contact was destroyed. In Mississippi, better drainage of low-lying areas is recommended, and in grass-grown sewage ditches, and other ditches in which oil could not be effectively applied by pouring on the surface, it was found that good results could be obtained by spraying. When applied in that way, the oil was found to operate effectively for about two weeks. Some of the most ex-

tensive experiments with remedies for the control of mosquitoes have been carried out at the New Jersey Station. At this station, a great variety of insecticides were tested. Carbolic acid and cresol were found to be somewhat effective, but were too expensive. Permanganate of potash was carefully tested on account of the claims which have been set up for this chemical, but was found to be entirely ineffective. The cheapest and simplest insecticide for mosquito larvae, however, was common kerosene of low grade. Crude petroleum in the ordinary form, or in the soluble form, was also tested with satisfactory results. A series of experiments was carried on with sulphate of copper, either in simple solution or in the form of Bordeaux mixture. In all of these experiments, it was observed that the destruction of the larvae by copper sulphate was a gradual and irregular process. It appears that mosquito larvae are destroyed when copper sulphate is used at the rate of 1 part to every 10,000 to 200,000 parts of water. The weakest really effective solution was 1 to 50,000, and even then was quite unreliable. No mature larvae or pupae were killed by any strength of the copper sulphate. The addition of salt to water in which mosquitoes were breeding produced no effect on the larvae. Neither quicklime nor chloride of lime appeared to possess any great value.

#### BEWARE OF FLIES.

The old-fashioned idea about flies was that they were rather necessary nuisances, whose function was to clean up dirt and keep things healthy. The new and better idea is to have no dirt for them to clean up, by putting all food and other attractions out of their way as soon as ever they can be spared from use, and to keep every place as clean and dry as possible during the summer. Far from it being "healthy to have plenty of flies," it has been demonstrated that they transmit diseases, as may be readily understood. Typhoid fever, for instance, is contracted either by eating or drinking its germs. On the flies' feet are tiny hooks and hairs, that may be readily seen through a microscope, which, with a soft gelatinous substance on the soles, enable them to walk over a ceiling or smooth wall.

They are fond of impurities, and may alight on diseased matter thrown off by a typhoid patient, pick up some of it on their feet, and then fly into a neighboring house where a plate of butter or a jug of cream may attract them, and where they leave behind them some of the filth collected elsewhere. Not an appetizing thought, surely. It is well to kill the few flies that linger in the fall and those that come early in the spring, as these are the progenitors of thousands. Screens should be used in doors and windows, and all breeding places cleared away from around the house; these are often under piles of rotting chips and in horse manure. The slop-barrel should be closely covered, often emptied and cleaned.—Sel.

#### CORNSTARCH PUDDINGS IN VARIATION.

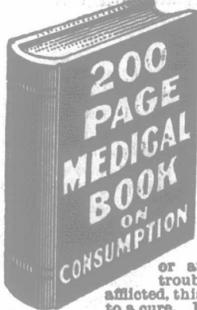
1. Heat 1 quart of milk. Add 4 heaped teaspoons cornstarch, moistened. Boil 15 minutes, stirring all the time. Take off, and when it has cooled a little, stir in yolks of 4 eggs, beaten with 2 tablespoons sugar and a little essence of lemon. Pour in a dish, and bake until set; then put over top the beaten whites of the eggs, beaten with a tablespoon jelly or jam. Return to oven to get firm on top.

2. Boil 2 cups milk with 1/2 cup sugar. Blend a teaspoon of cornstarch in a little cold milk. Stir into milk, and let boil. Flavor with vanilla, and serve with cream.

3. Put a quart of milk in a double boiler. Blend 2 tablespoons starch in a little milk, then beat in 1 egg and a pinch of salt. When the milk is scalding, stir this mixture in. Dip cups in cold water; half fill with the cornstarch, and set away to cool.

4. Boil 3 cups water with 1 1/2 cups sugar, and the juice of two lemons. When boiling, add 3 tablespoons cornstarch, previously moistened, and boil till clear. Let cool, and beat in the stiffly-beaten whites of 2 or 3 eggs. Beat 5 minutes, and serve cold with custard sauce.

## Consumption Book



FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case hopeless.

Write at once to the Yenkerman Consumption Remedy Co., 146 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

## ALMA COLLEGE

Rev. R. I. Warner, D. D., Principal. Mrs. Jean Residential Ladies. Wylie Gray, Lady Principal. School for Girls and Young Ladies. 27th year begins Sept. 10th.



University affiliation. High School Classes, also Junior department. No better facilities anywhere for study of Music, Fine Art, Commercial, Domestic Science, Elocution, Physical Culture. Most Southerly College in Canada. Six-acre campus. For year book write Principal Warner, St. Thomas, Ont.

## ECZEMA

Of the Skin and Scalp Can Be Cured.



It yields quickly to our reliable home remedies for the cure of all skin troubles. Not one remedy is a cure-all. CONSULTATION FREE by mail. We've had over fifteen years' experience in treating Eczema, Salt Rheum, Ringworm, Rash, Pimples, Blackheads, Blisters, Freckles, Moth-patches and Discolorations.

Any spot or blemish that tends to mar the personal appearance of any young man or woman is always successfully treated. When writing be sure and describe trouble fully.

#### Superfluous Hair.

Moles, Warts, Birthmarks removed permanently by our method of Electrolysis. Satisfaction guaranteed. Come during summer for treatment. Send 10 cents for books and sample of cream.

GRAHAM DERMATOLOGICAL INSTITUTE, Dept. F. 502 Church Street, Toronto.



## LADIES

Send for a FREE Sample of ORANGE LILY.

If you suffer from any disease of the organs that make of you a woman, write me at once for ten days' treatment of ORANGE LILY, which I will send to every lady enclosing 3 cent stamps. This wonderful Applied remedy cures tumors, leucorrhoea, lacerations, painful periods, pains in the back, sides and abdomen, falling, irregularities, etc., like magic.

You can use it and cure yourself in the privacy of your own home for a trifle, no physician being necessary. Don't fail to write to-day for the FREE TRIAL TREATMENT. This will convince you that you will get well if you continue the treatment a reasonable time. Address MRS. F. V. CURRAN, Windsor, Ont.

\$10 WOMEN'S LUSTRE SUITS, \$6. Wash suits, \$2.50 up. Cloth suits, \$6 to \$16. Skirts, waists and silk coats at manufacturers' prices. All garments tailored to your measure within one week. Send for free cloth samples and fashions. Southcott Suit Co., London, Ont.

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They are built on a solid foundation.

## "QUALITY"

and will bear inspection. No dealer will hesitate to show you the inner workings of a

## Sherlock - Manning

Write us for catalogue and particulars.

THE SHERLOCK-MANNING ORGAN CO., LONDON, ONTARIO.

Free to all Housekeepers

"1900 JUNIOR" Ballbearing Family Washer For 30 Days' Trial

Simplest, easiest, most efficient machine for washing clothes ever invented. Write to-day and I will mail you a book containing all particulars, or I will send the machine on to you if you say so. Address me this way:

F. A. I. BACH, Manager "1900" Washer Co. 355 Yonge St., Toronto, Ont.

## SOME RHUBARB RECIPES.

**Rhubarb Meringue.**—Line a pie-plate with paste. Cut into inch pieces enough rhubarb to fill the plate, and sprinkle with flour until each piece is white. Put in the pie-plate, adding 1 cup sugar and a very little water. Bake slowly without a top crust, and, when done, spread over the top the beaten whites of 2 eggs into which has been stirred 1 tablespoon sugar. Brown lightly.

**Rhubarb Souffle.**—To every quart of rhubarb, cut in small pieces, add 1 lb. sugar. Stew with a very small quantity of water until tender, and mash fine. For every pint of the stewed rhubarb, take 3 eggs. Beat up the yolks very light, and add with the rhubarb, mixing well. Whip the whites stiff, add to the mixture; put the whole into a well-buttered dish, and bake in a quick oven for half an hour.

**Rhubarb Jelly.**—Cut up the rhubarb, put in a granite kettle, and heat on the back of the stove until the juice flows freely. Pass the juice through a jelly-bag, but do not force it through. Boil the juice for 10 minutes, then measure, and to each pint allow a pound of sugar. Continue boiling until a little poured into a cold dish sets nicely.

## DEVONSHIRE "CLOUTED" CREAM.

Place new milk in a large, shallow pan to the depth of three or four inches, and leave in a cool place for the cream to rise. Then place the pan on top of the stove and heat very gently—it must not boil. When the cream forms a ring around the pan, and looks thick and crinkled, it is done. Remove to a cool place, and, when cold, skim and use. It is especially used with apple pie, but is liked by many on any kind of cooked fruit, or sweetened and flavored by itself.

## With the Flowers.

## PEA BUGS—BULBS.

We have taken "The Farmer's Advocate" for several years, and find it a very valuable paper. I would like to ask a few questions:

1. In saving your own garden peas for seed, what is good to keep the bugs out? If planted, will the green peas also have bugs?
2. What is caraway seed worth a pound, and where is the place to sell it? Would a drug store be the right place?
3. Is the crocus the earliest bulb to flower in spring, and how long after the flowers are gone before you can dig them up?
4. Would it be all right to cut off the tops of the tulips, while they are green, and not dig up bulbs until fall?

CONRAD KNISTER.

Essex Co., Ont.

1. If bugs or weevils are found in the seed, they should be treated as soon as possible after being gathered with carbon bisulphide. Put the peas in a box, and place beside them a saucer with a little of the bisulphide in it, and leave, closely covered, for 48 hours. As the fumes of this substance are exceedingly inflammable, no light or fire of any kind should be in the same room with it at any time.

It is better not to plant weevilled peas.

2. On inquiry, we find that very few retail druggists will buy caraway seed. With wholesale druggists, there is a light demand. They will pay 5c. a pound for a good, clean sample.

3. The snowdrop blooms before the crocus. Dig crocus bulbs up after the foliage is ripe, or, if necessary to do so sooner, place them in a shallow trench, and cover with earth until they are ripe, then store away until fall. The seed of the crocus grows in a long cell underground.

4. In regard to tulips, E. Bennett, a well-known authority, says: "When through blooming, and the foliage has ripened, the bulbs may be lifted, dried, and stored away in a cool place until fall. . . . Neglected beds of tulips seem to multiply and perpetuate themselves indefinitely, but the new plants will be found to be all from seed, as the tulip forms its new bulbs at the base of the old, and if they were not frequently taken up and reset, they would grow so deep in the ground that all the strength of the plant would be exhausted reaching the surface, and there would be no bloom."

## LADIES!

## We Want Name for New Range

We have under construction patterns for the most modern and finest Steel Range ever placed on the Canadian market, and look to the ladies of Canada to supply a suitable name for it.

The name should be original, and suitable for the highest grade of heavy cooking apparatus. A name that will look well in print, and one easily remembered.

This range will be made of heavy steel plate, with handsome cast ornamentation, constructed with a view to meet the requirements of the GREAT WEST, but equally applicable to any part of Canada.

## Conditions of Contest.

No. 1. Name, if one word, to contain not more than 8 letters. If two words, not more than 10 letters.

No. 2. Not more than 3 names to be suggested by one person.

No. 3. All replies must be addressed to our London office and mailed within two (2) weeks after this paper is published.

No. 4. The judges in the contest will be officers of the McClary Company, assisted by two advertising experts.

No. 5. Should the name decided upon be sent in by more than one person, the prize will be given to the person whose name is first received.

No. 6. Mention this paper.

The winning names will be decided upon without delay, and the results will be published in this paper within ten days or two (2) weeks afterwards. Address all communications to

## Prizes.

1st. One of the new ranges complete, with reservoir and high closet, delivered to the winner's nearest station. Value, \$65.

2nd Choice. One of the new ranges, square—that is, without reservoir and high closet, delivered to the winner's nearest station. Value \$40.

3rd Choice. Goods—stove or enamelware—delivered to the winner's nearest station. Value \$30.

4th Choice. Goods—stove or enamelware—delivered to the winner's nearest station. Value \$20.

5th Choice. Goods—stove or enamelware—delivered to the winner's nearest station. Value \$10.

## THE McCLARY MFG. CO.

Advertising Dept.

LONDON, ONT.

Largest Makers Under the British Flag of Stoves, Ranges, Furnaces, Enamelware, Etc.

## Important Auction Sale

IMPORTED  
CLYDESDALES

Woodstock, Ont., Wed., July 3, '07

## 25 IMPORTED MARES AND FILLIES

Selected for size and quality, combined with the best of breeding. Sired by the best sons and grandsons of Prince of Wales, Sir Everard, Baron's Pride, Hiawatha, and other noted stallions. Most of these mares have been bred this spring to first-class sires, and one has a fine filly foal at foot by a son of the champion Hiawatha.

Sale to commence at 1 p. m.

Catalogue ready on day of sale.

For particulars apply to

J. W. INNES, WOODSTOCK, ONT.

Innes, Schaefer & McClary.

CAPT. T. E. ROBSON AND P. IRWIN, AUCTIONEERS.

QUESTIONS AND ANSWERS.  
Miscellaneous.

## CLYDESDALE HORSE, ABERDEEN.

Was the Clydesdale stallion, Aberdeen, or Prince of Aberdeen, an imported horse? Please give his number. W. H.

Ans.—Aberdeen (imp.) [598]; foaled 1886; imported 1887, by John Dryden, Brooklin, Ont. No other ownership given in studbook. No horse named Prince of Aberdeen is recorded.

## AN OPEN-DRAIN AWARD.

I desire information, through your columns, on the following drainage questions, re an award on open drain, situated in the Province of Ontario. It takes in 400 acres, owned by A, B, C and D. B forced this drain through 20 years ago this coming fall, and at that time the engineer made each man do all his work on his own place, as he considered it would be of equal benefit to each, except that he allowed D to go free of all expense connected with the running of the ditch, such as surveying, etc., on account of him having to take the water. D is now considering the award with respect to putting tile in the ditch. We held a friendly meeting, but did not agree, so now the engineer is to be brought on.

1. Since D made the requisition to have the engineer to be brought on, must the engineer say that he is running a new ditch, which will have its starting point on D's farm?
2. Can the engineer place tile in D's drain, providing A or B would not be satisfied?
3. Would the law allow the engineer to go back to A's farm, which is 120 rods distant from D's, providing A was satisfied for him to come?
4. Would the ditch be legally run in case the engineer allowed D to adjourn and except A as the starter of the ditch, without A making a requisition for him to proceed, any more than a verbal one?
5. Could A, or A and B, not tile their drain at any time without consulting C or D, providing their drain would serve us as a good outlet?

6. Would D, or C and D, be justified in asking for help from those behind him to pay for the extra size in tile required towards the outlet?

7. Would the engineer be entitled to his day's pay (which is \$4) by coming to D's farm on a certain date, and claiming that the weather was not fit to go out in?

8. D employed a magistrate to draw up an agreement of owners at our friendly meeting. Is A, B or C obliged to share in the expense of paying this magistrate? W. H. M.

Ans.—1. No.  
2. He may so award, if he judges it wise to do so. A and B would have recourse in appeal if not satisfied.

3. Yes. The drain does not start on D's farm, but on A's.

4. We think so, but it is immaterial who is the applicant. The drain affects all four, all must be considered in the award, and if any of them have not been mentioned in the requisition, the engineer has power to adjourn the hearing until such party has received legal notice of engineer's examination.

5. Section 33 of the Ditches and Watercourses Act reads: "This Act shall apply to the deepening, widening or covering of any ditch already or hereafter constructed, and the proceedings to be taken for procuring such deepening, widening or covering, shall be the same as the proceedings to be taken for the construction of this Act, but in no case shall a ditch be covered, unless, when covered, it will provide capacity for all the surface and other water from lands and roads draining naturally towards and into it, as well as for the water from all the lands made liable for the construction thereof."

6. We think so.

7. Probably he would.

8. If D engaged the magistrate without consulting the others, a court would probably hold him responsible; but if he consulted them, and they acquiesced, they would probably be held for their share. D.

James Snell, Clinton, Ont., advertises for sale three good young Shorthorn bulls of serviceable age, all reds, and bred from good-milking strains.

GOSSIP.

BUTTER BOXES of first-quality spruce are advertised by the Standard Box Co., Lennoxville, Que. Write for prices and particulars, and give them a trial.

Jas. Dalgety, Clydesdale importer, leaves this week from Montreal via the Donaldson line for Scotland, where he will purchase a select consignment of horses for Canada. Persons who wish to correspond with him while there will find him, care of Dalgety Bros., Park Place, Dundee, Scotland.

J. F. ELLIOTT'S CLYDESDALE SALE. Breeders and farmers should bear in mind the auction sale of 25 imported Clydesdale mares and fillies, advertised to take place at Woodstock, Ont., on June 26th. This, we are assured, is an exceptionally choice selection, combining quality, size, breeding and action of high order. They are sired by some of the most noted horses in Scotland, including the champions, Baron's Pride and Hiawatha, and their best sons. Several prizewinners are in the lot, including the champion mare, Lady Sterling, by Labori, by Hiawatha. Labori won the £100 Shield at the Glasgow Show. See the advertisement; remember the date, and write for catalogue to Capt. T. E. Robson, London, Ont.

RIDING THE OUTLAW HORSE.

Clayton Danks, one of the best cowboys that ever threw a leg over saddle in Wyoming, had just finished a ride on the great outlaw horse, Steamboat, "the worst horse in the world." The big black horse had fought with every trick at his command and had pitched, sun-fished, sidestepped and changed ends, winding up crushing descents that had unseated many a champion. The cowboy was panting heavily as he leaned against the corral gate.

"If it hadn't been for the sandy soil out there he'd got me," admitted the cowboy. "I've been on all the bad horses in the West, I guess, but old Steamboat sure has a right to his title. He is the worst outlaw that ever happened, and that black hide of his'll be full of crussedness until he dies."

"What makes Steamboat harder to ride than any other horse?" was asked.

"It's the way he comes down on the ground. There are other outlaws that do more fancy steps when they're bucking, but they don't jar a man like old Steamboat. You see Steamboat is a big, heavy horse. He is about 12 years old, and he has been bucking just the same for eight years, or ever since they first put a saddle on him.

"He fought just the same way when he was brought in off the range, and they tried to break him. He gives a sort of peculiar side-twisting jump, and when he hits the ground you think you've fell off one of those twenty-story tepees down in New York. He looks easier to ride than lots of other horses, but he ain't. He's the worst horse in the world, all right, when it comes to making a fight.

"There's no cowboy wants to try to scratch Steamboat," went on Danks, as he peered through at the big horse which was walking calmly about within the corral looking like anything but an equine desperado. "You know, it's customary for broncho busters to scratch the shoulders of a horse with their spurs just to get the buck out of 'em quicker. Well, lots of cowboys may be able to stay on Steamboat just the way I have done, by not stirrin' him up very much. But you get him on hard ground where he can get out the full effect of his jumps and then try and scratch him, and the best rider in the world will go over on his head. Otto Ploger, one of the finest riders in Wyoming, made a bet he could scratch Steamboat.

"Well, he rode him fine for a few jumps, and might have stayed on right through, but the first time he gave a little rake with his spur, old Steamboat woke up. The boss had been kind o' loafin' along like he was sayin' to himself: 'Well, Otto's a nice boy, and I don't want to hurt him.' But when he felt that spur rake down his shoulder, he gave a jump that made Otto's bones squeak. Then he give another a little worse, and Otto fell off so jarred that he didn't dare speak for ten minutes for fear his teeth'd fall out."—[San Francisco Chronicle.

AUCTION SALE OF CHOICE CLYDESDALE FILLIES.

R. A. & J. A. Watt, of Salem, Ont., and Andrew Aitchison, of Guelph, are names that stand for integrity and judgment, and the announcement that they have each imported a first-class bunch of Clydesdale fillies, which will be offered in a combination auction sale, at the stables of the Commercial Hotel, Elora, Ont., on Thursday afternoon, June 27th, is enough to induce anyone in need of choice female breeding stock to be present, if he possibly can. A member of our staff had the satisfaction of inspecting both lots last week at their respective farms, and found a first-class aggregation all round—well-bred, well-grown, and with the best of quality and bone. Nobody can make a mistake, whether he is a judge or not. The importers have done the selecting, and there is not a cull in the bunch. We believe it is their intention, if the present lot realize satisfactory prices, to bring out more, and both are determined to handle none but first-class stock.

Mr. Aitchison's offerings are, with one or two exceptions, composed of an importation he brought out early in May, and number 11 fillies and one stallion. The latter is Royal Ascot [7195] (Vol. 29, S.), by Ascot, the last son of old Macgregor. He is a big, well-built young horse, with first-class quality and bone. The fillies comprise one four-year-old, a three-year-old, seven two-year-olds and two yearlings. Taking the classes in order of seniority, we have first Ardyne Belle [10029] (Vol. 28, S.), a black four-year-old, by Elator, by Baron's Pride. This filly was first at Rothesay and at Annan as a two-year-old, second at the Ontario Horse-breeders' Exhibition, in Toronto, in the three-year-old class, and first at all the local shows. Melody is a black three-year-old, by Baron Romeo, he by Baron's Pride, and is a credit to her breeding. Among the two-year-olds is Lizzie [11580] (Vol. 29, p. 136, S.), by Sir Hugo, he by Sir Everard. This filly was pronounced by a Scotch judge, who saw them at Montgomery's, as the best of the bunch. Then there is Margaret, by Durbar, and out of Sibyl Gray, a full sister of Sorby's noted horse, Acme. Sadie Press is another get of Durbar, dam Jenny Gartley, by Royal Gartley, grandam Sibyl Gray. Miss Scott, by Springhill Baron, is an attractive filly, with lots of scale, and should suit the taste of Canadian buyers. Others on the list are Queen Thyra, by King's Herald, grandam by Sir Everard; Jenny 2nd of Grange, a brown, by Dashwood, and Heather Bell, by Ascot, second at Toronto this spring, first at Kirkcubright in a class of 15, and a winner at all the local exhibitions. A couple of cracking good yearlings, that cost a pretty pile of bawbees, are Marinetta, by Benedict, and Dandy Girl, by Ruby's Pride. As they stand, the latter is the more taking of the two, showing great development of middle and bone, with perfect pasterns and feet.

The Watt Bros.' contingent arrived towards the last of May, and comprises one stallion and fifteen fillies, nine of them being three-year-olds, five two-year-olds, and a yearling. The stallion is a dark bay two-year-old, called Clan Ronald, by Montrave Ronald, dam Jess of Arnprior, a Cawdor-cup champion. He is a well-put-up horse, with A1 underpinning, extraordinary muscling of forearm, bone like flint, and a right good way of going. Unfortunately, we cannot describe the fillies so satisfactorily as we would like, for the reason that J. A. Watt was absent at the bedside of his brother, who was undergoing a surgical operation, and the men at the farm could name only one of the fillies. A general inspection of the lot, however, enables us to assure intending visitors that they are a number-one, uniform class. Beyond this, the breeding must speak. One of the plums is the bay, Royal Blossom, by Royal Favorite, with blood of Flashwood and Lockfergus Champion appearing in the pedigree. Among her many excellencies are extra good, clean bone, well-set pasterns, and first-class large feet, with open hoof-heads. Running down the list, we find Bankhead Bell, sire Sir Everard; Young Rosie of Masterton, also by Sir Everard; Brown Bess, by Lathrisk Prince, Duchess III., Milly II., and Daisy II., all by Baron Kent, and Silver Bell, by

Silver Light. Coming into two-year-olds, we have Black Damsel, by Baron's Pride, grandam Princess II., by Darnley, breeders A. & W. Montgomery; Princess Nettie, a Baron's Pride filly, dam Czarina, by Macgregor; Maggie Scot, bred by Lord Holwarth, sire Baron O'Dee; Maggie Alexis, by Baron O'Dee, dam Lady Alexis, by Prince Charming, grandam by Darnley; and Susie McMillan, by Loch Sloigh. The yearling filly, Lady Ronald, is by Montrave Ronald.

Elora is thirteen miles north of Guelph, and may be reached by C. P. R. or G. T. R. The latter gives a convenient service from Guelph, both going and returning. Write for catalogue, addressing either Andrew Aitchison, at Guelph, or R. A. & J. A. Watt, at Elora. The Watt homestead is at Salem, a mile north of Elora, but correspondence relating to the horses should be addressed to the latter place.

WOODSTOCK CLYDESDALES.

As announced in the advertisement in this paper, the well-known importers of Clydesdales, Messrs. Innes, Schaefer & McClary, will offer, at auction, another consignment of 25 imported mares and fillies, at Woodstock, Ont., on July 3rd, a carefully-selected lot, combining size, quality and good breeding in a high degree, and most of them bred this spring to first-class sires. They are principally the get of some of the best sons and grandsons of the great sires and prizewinners, Prince of Wales, Sir Everard, Baron's Pride, Hiawatha, and other noted horses, and show in their strong, clean, flat bone, sound feet and true action, the results of the careful breeding which has made the Clydesdale so popular as a draft horse, and all will be registered in the Canadian Clydesdale Studbook. This offering includes, besides a number of capital matched pairs of two-year-olds and yearlings, the grand bay five-year-old mare, Jessie Gilchrist, held out of the last sale owing to being out of condition, but now in perfect health and having a fine filly foal at foot, by one of the best sons of the champion Hiawatha. Jessie was sired by Carthusian, a son of the great Darnley (222), and her dam by the equally-noted Prince of Wales (663), and is a typical Clydesdale of the best stamp, broad, low-set, and standing on faultless limbs and feet, and should prove a fortune as a breeding proposition. Another outstanding number, in fine condition, is the beautiful and typical bay three-year-old mare, Lady Sterling, by Prince Alexander, one of the best of the living sons of old Prince of Wales. Nearly a match for her in quality and condition is the bay two-year-old, Maggie Jackson, by Baron Hiawthorne, a grandson of Baron's Pride, said to be one of the best of the family line. Woodend Annie is a black two-year-old of fine form and character, by Lamachan, a son of the favorite Prince Sturdy, by Cedric, by Prince of Wales. Broadholm Lily, a brown of the same age, would make a good mate for her, and her breeding is right, being got by Sir Randolph, a son of the noted Moncrief Marquis, by the great son of Prince of Wales, Prince of Carruchan. A capital-matched pair of black two-year-olds are Gwen and Egeria, the former by a grandson of Baron's Pride, the latter by a grandson of Sir Everard, and both of the blocky, well-built, clean-boned kind. Another well-matched pair of two-year-olds, bay and brown, are Lily Webster and Charity, the former by a son of the great Royal Favorite, the other by the noted son of Baron's Pride, Baron of Buchlyvie, and her dam by Cawdor Cup. An excellently-bred two-year-old, with four numbered dams, is Lady Fife, a bay, by Brooklin, a son of the great Darnley. A pair of choice yearlings are Rosegay and Tossie, the former by Hiawatha Prince, dam by Sir Simon, by Sir Everard, the latter by a son of Baron's Pride, and both of great promise. Space will not admit of further mention, but these are specimen numbers of an excellent offering, which should find ready buyers at fair prices, and should prove a good investment. Farmers should keep the date in mind, and attend this sale, where the chances are that good bargains will be available. The catalogue may not be ready in time to mail, but will be ready by sale day.

Editor Advertising SOLICITOR.

WANTED—Young man—well educated—with good agricultural experience—as associate editor and advertising solicitor for the Farmer's Advocate and Home Journal, with headquarters at Calgary, Alberta. Must be enterprising and energetic; one with journalistic experience and personal knowledge of the West preferred. Give full particulars as to qualifications. Address:

THE FARMER'S ADVOCATE, WINNIPEG, MAN.

POULTRY AND EGGS

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

At Valley Mills Poultry Ranch, hatching eggs from S. C. White Leghorns—heavy winter layers—\$4.50 per 108; \$1 per setting. Send for circular. E. C. Apps, Box 234, Brantford, Ont.

MAMMOTH Pekin duck eggs from Maple Grove Poultry Yards reduced from \$3 to \$1 for balance of season. At seven shows last season my Pekins won more first prizes than all others combined. T. J. Cole, Bowmanville, Ont.

WHITE Wyandottes (exclusively). Strongly fertilized eggs from heavy laying Martin and Duston strain, one dollar per fifteen, five dollars per hundred Daniel T. Green, Brantford.

BIRDS Morgan's Song Restorer will bring your birds back to health and song, 25c. postpaid. Bird Foods, Cases, Books, Canaries and Gold Fish. Free article on Feeding and Care of Birds. DOG Supplies, Books and Medicines

Advertisements will be inserted under this heading such as Farm Properties, Help and Situations Wanted, Pet Stock, and miscellaneous advertising.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

BABY FOR ADOPTION—Healthy; attractive. Guardianship made safe. Write J. J. Kelso, Toronto.

EDITOR and advertising solicitor—Wanted, a young man—well educated—with good agricultural experience—as associate editor and advertising solicitor for the Farmer's Advocate and Home Journal, with headquarters at Calgary, Alberta. Must be enterprising and energetic; one with journalistic experience and personal knowledge of the West preferred. Give full particulars as to qualifications. Address: The Farmer's Advocate, Winnipeg, Man.

FOR SALE—Fruit farm Box 49, Fruitland, Ont.

WANTED—A few good subscription agents for The Farmer's Advocate and Home Magazine. Liberal terms. The William Weld Co. Ltd., London, Ont.

WANTED—Fifty smart girls for our spinning, winding and weaving rooms. Good wages, steady employment and pleasant surroundings. Fares paid. Apply, giving full particulars, to The Toronto Carpet Mfg. Co., Toronto.

WANTED—Ladies in rural districts desirous of engaging in profitable business will do well to write the Robinson Corset & Costume Co., London, Ont.

WANTED AT ONCE—Strong, active young man to milk and do general dairy farm work. To one who takes interest in his work, and likes to make a good job, we will pay the highest wages. In first letter send references, state age, experience, if use liquor or tobacco, and wages wanted for term of six months or one year. Address: E. & A. H. Baird, Chesterfield, Ont.

WANTED—Women to take orders for our Tailored Skirts in their community. Send for free samples, cloths and terms. The Central Skirt Co., London, Ont.

PRIVATE TREATY—HACKNEY STALLIONS FOR SALE—P. Crawford, Darnley, Dumfries, Scotland, has, in addition to the usual big lot of CLYDESDALE STALLIONS, suitable for foreign buyers, about 30 first-class HACKNEY STALLIONS, two to six years old, ranging from 15 to 16 h. h., specially selected, and got by such sires as Rosador, Gar-ton Duke, Poinus, etc. Quite a number of them were well up in the prize lists at the recent London and other shows.

Farnham Farm Oxford Downs

We are now offering a number of select yearling rams and ram lambs, sired by imported ram, for flock headers; also yearling ewes and ewe lambs. Price reasonable.

Henry Arkell & Sons, Arkell, Ontario Arkell, C. P. R.; Guelph, G. T. R.

## COMBINATION AUCTION SALE

OF

# Clydesdale Fillies <sup>A</sup><sub>N</sub><sup>D</sup> Stallions

THURSDAY, JUNE 27th, 1907

There will be sold an unsurpassed collection of FILLIES bred in the purple. Among these are show mares, and, taken all together, they constitute one of the most sensational collections of CLYDESDALES ever offered to the public at their own prices. They will be sold at

**Elora, Commercial Hotel Stables**

Arrange to attend the sale. For full particulars and catalogues address—

**ANDREW AITCHISON,**  
GUELPH, ONT.

**R. A. & J. A. WATT,**  
ELORA, ONT.

### QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.  
2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.  
3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.  
4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

#### Veterinary.

##### DIFFICULT BREATHING.

Calf, six weeks old and doing well, has breathed like a heavy horse for a week. Its lungs do not appear to be affected.

SUBSCRIBER.

Ans.—Give it five grains digitalis in a little new milk as a drench, twice daily. If the throat appears sore, apply mustard mixed with water.

##### ASCITES.

Year-old calf took sick. I called a veterinarian, and he said it would die. It died, and I opened it, and found not less than three pails of water in the abdominal cavity. The bladder was inflamed. Is this contagious?

R. G.

Ans.—This was a case of dropsy, or abdominal ascites. It is not contagious. Your veterinarian was right, as the case proved, and he should have credit for not putting you to useless expense for a hopeless case. In the very early stages of the disease, the administration of iodide of potassium and tonics may do good, but in an advanced case, like yours, medicinal treatment is useless. An operation in some cases gives temporary relief, but the fluid forms again. It is not possible to say what caused the trouble.

#### Miscellaneous.

##### A DOG SHOT.

Two days ago, early in the morning, as

my brother was going for the cows, there were a number of stray cattle on the road. He set my dog on them, not thinking but the dog would just run them a little piece and come back, but he followed them right into my neighbor's yard. He (neighbor) called to him to leave them alone, so he ran back into the field and brought one that had strayed away from the others. Then, when called off from that one, he went back across the field again and brought my neighbor's own cows, and, while doing so, my neighbor took his gun and shot the dog. This is his own story as to what occurred at his place, told to me that same afternoon as I was passing his place on my way home from town that night. The dog did none of the cattle any harm, and he said he would do nothing towards making good my loss. He was a young dog, 1½ years old; was getting pretty good at driving; was not cross, and had never given anyone any trouble. Was he (he knew it was my dog) justified in what he did? I told him I did not want my dog to do anyone any damage, but I would like if he had tried to send him home. He said he was not going to run after him.

Ontario.  
Ans.—We think not.

##### WARTS.

Have a young cow whose teats are covered with small warts, and a few large ones coming on since first season's milking. They hurt when she is being milked. Can anything be done to remove them, or make them so they will not hurt?

A. M. F.

Ans.—These could be best removed when the cow is dry. If warts have long slim necks, they may safely be clipped off with scissors, and a little carbolic-acid solution, one part of the acid to 20 of water, used on the wounds will deaden and heal them. Larger-based warts may be touched daily with a pencil of silver nitrate, or with butter of antimony, carefully applied with a feather in small quantity, always being careful to not overdo it, making a troublesome sore.

##### POULTS WITH THICK NECKS.

I had a hatch of 15 turkeys come off yesterday. The most of them have a thick neck. The head is all right, then just from the root of the neck to the shoulder is quite a raise on the upper side. The flesh seems to be thick, or some other substance that causes the raise. What can it be owing to? I have two young hens I kept last year, and a young gobbler I got from Ayr this spring. I don't think it can be inbred. The two old hens I had four years; that is, the mothers of the ones I am now using.

OLD SUBSCRIBER.

Ans.—I have never had young turkeys coming from the shell afflicted in such a manner, nor have I ever read of such a condition immediately after hatching. Can offer no explanation. You might send a specimen to the Poultry Department, Ontario Agricultural College, Guelph.

W. J. BELL.

##### JUDGING CLYDESDALES.

A stallion show was held in our township this spring, and, among others, there were three Imp. Clydesdale horses, we shall call them A, B and C. An expert did the judging, and awarded prizes, first, second and third, to A, B and C, respectively. A few days later another show was held in a near-by village. The same three horses were shown. A different judge was on the scene, and awarded prizes, first, second and third to C, B and A, respectively. Now, what I would like to know is, was there a possibility of those judges both being justified in making the awards the way they did, or, in other words, is there more than one class of Clydesdales? I have heard it stated that there are two distinct classes of Clydesdales. If so, please explain to us how we may distinguish the one from the other. If no explanation can be given, a case of this kind gives the public a very poor opinion of expert judging.

J. R. P.

Ans.—We know of no two classes of Clydesdales, but there may be two classes of judges, those who know a good horse when they see one, and those who

do not, or those who attach more importance to size and weight than to quality and action, and those who appreciate the latter qualities more than the former. This being the case, there need be little surprise if they reverse each other's ruling in the placing of three horses, and do it honestly. Good judges do not always agree in their preferences between two good horses, and some allowance should be made for this difference of opinion, taste or preference, whichever one chooses to call it.

#### GOSSIP.

The entries for the International Horse Show, at Olympia, London, England, June 7-13, totalled over 2,000, and the show is regarded as the greatest event of its kind ever held. Half a score of American exhibitors, including several multimillionaires, were among the competitors, and won a large share of the best prizes, the champion Hackney stallion, Sir Humphrey, bred in England, and sired by Rosador, being shown by Fred Pabst, of Milwaukee, Wis. Hon. Adam Beck, London, Ont., represented Canada with a very creditable string, which scored well in the competition, getting to the head of the list in at least one class, and well up in several others.

#### SHORTHORNS SELLING HIGH.

At the sale, on June 4th, of a selection from the herd of Milton E. Jones, at Williamsville, Ill., the roan yearling bull, Scotch Goods, by Imp. Choice Goods, sold for \$2,520. The two-year-old bull, Cherry Grove Banff 18th, by Imp. Lord Banff, brought \$650. Half a dozen females sold for \$400 to \$980 each. And the whole 41 head for an average of \$314. These records were, however, heavily discounted at the great sale, on June 11th, at Chicago, when Col. F. O. Lowden, of Oregon, Ill., sold 61 head from his herd at an average of \$633, the bull, Cumberland's Last, bringing \$3,000; the cow, Lavinia 2nd, and bull calf, \$2,000. Half a dozen cows sold for \$1,000 or over. The females averaged nearly \$600, and the bulls over \$1,300.

### If Your Horse Gets Hurt?

If one of the horses should be kicked—cut a knee—strain a shoulder—go lame—have you the remedy at hand to CURE the injury?

### Kendall's Spavin Cure

ought to be in every stable and barn in Canada. It prevents little horse troubles from becoming big ones—and takes away all signs of lameness. With a bottle of Kendall's Spavin Cure handy, you are prepared for accidents that may happen at any time.

CROSSFIELD, Alta., Jan. 14 '06  
"I have used Kendall's Spavin Cure with great success in many things, such as Barb Wire Cuts and Raw Sores."  
M. J. MORRISON.

Don't be without it another day. Get a bottle at your dealers. \$1. or 6 for \$5. Our "Treatise On the Horse" tells just what you ought to know about horses, their diseases, and how to cure them. Write for free copy.

DR. B. J. KENDALL CO., ENOSBURG FALLS, VERMONT, U.S.A. 35



### Clydesdales, Percherons and Hackneys

I have still on hand 12 Clydesdale stallions, 4 Clydesdale fillies, all imported; Scotland and Canadian prizewinners; 3 years old, that will make 2100-lb. horses of choicest quality and richest breeding; 4 black Percheron stallions, 3 years old, big, flashy, quality horses, and 6 Hackney stallions, 1st-prize and championship horses among them. Will sell reasonable and on terms to suit.

DR. T. H. HASSARD, Millbrook P.O. and Stn.

### 40 WAVERLY HACKNEYS 40 Imported Stallions and Fillies.



Every one a high-class actor and a show animal. Splendidly-matched pairs and singles. Positively the highest class lot of Hackneys to be found on any one farm in America. All ages. Also 4 imported Clydesdale fillies. A big, flashy lot, full of style and quality.

ROBERT BEITH,  
Bowmanville P. O. and Station.  
Long-distance Phone.

### W. C. KIDD, LISTOWEL, ONT.

Importer of Clydesdales, Shires, Percherons, Belgians, Hackneys, Standard-breds and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance phone. LISTOWEL P.O. AND STATION.

### SMITH & RICHARDSON, COLUMBUS, ONT.,



have now on hand only the choice imported colts Dashing King, a 3-year-old, and Baron Columbus, a 2-year-old; also a couple of rattling good Canadians, 7 and 3 years old.

Long-distance Phone. Myrtle Station, C. P. R.  
Brooklin or Oshawa, G. T. R.

### Graham & Renfrew's GLYDESDALES and HACKNEYS



Our Clydes now on hand are all prizewinners, their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 4458.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

### CRAIGALEE STOCK FARM FOR SALE

Positively one of the best farms in York county. Lots 9 and 10, in 5th con., Scarborough, contains 140 acres, 4 miles from Markham, G.T.R.; 3 miles from Locust Hill, C.P.R.; 1 1/2 miles from P.O., church and school; two-story brick house; barn 12 by 93 feet; stone stables, cement floors; 18 horse gasoline engine and 60 feet of shafting; water in stables; hay forks, slings, etc., complete; 4 acres orchard, small fruits. Farm thoroughly drained and fences first class, and in a high state of cultivation; 3 1/2 miles from Locust Hill creamery. Bell telephone connection. Everything first-class. Address:

H. J. SPENCELY, Box Grove P. O.

### THE CHAMPION IMPORTED GLYDESDALE STALLION, BARON KITCHENER (10499)

This year's winner of the Cawdor Challenge Cup at Glasgow, will stand for service to approved mares for the season of 1907 at "The Firs," Woodstock, Ont. Mares from a distance will be kept on pasture at \$1 per week. Terms to insure, \$25. For further particulars address the owner

J. W. BOYLE, P. O. Box 563, WOODSTOCK, ONT.

PLEASE MENTION THIS PAPER.

### Ontario Fairs and Exhibitions, 1907.

Abingdon	Oct. 16 and 17
Almonte	Sept. 24, 25, 26
Alliston	Oct. 3 and 4
Alvinston	Oct. 2 and 3
Alfred	Sept. 24 and 25
Alexandria	Sept. 9 and 10
Ameliasburg	Oct. 4 and 5
Amherstburg	Oct. 1 and 2
Arthur	Sept. 19
Atwood	Oct. 1 and 2
Aylmer	Sept. 2, 3, 4, 5, 6
Baden	Sept. 18, 19
Barrie	Sept. 23, 24, 25
Baysville	Oct. 2
Bar River	Sept. 24
Beeton	Sept. 26, 27
Becher	Sept. 25
Beachburg	Oct. 3, 4
Berwick	Sept. 12, 13
Belleville	Sept. 17, 18
Binbrook	Oct. 7, 8
Bobcaygeon	Sept. 25, 26
Bowmanville	Sept. 26, 27
Bothwell's Corners	Sept. 26, 27
Blackstock	Oct. 1, 2
Blyth	Sept. 23, 24
Bradford	Oct. 15, 16
Bracebridge	Sept. 26, 27
Brussels	Oct. 3, 4
Brigden	Oct. 1
Brockville	Sept. 10, 11, 12, 13
Brighton	Sept. 26
Bruce Mines	Sept. 25
Burk's Falls	Oct. 3, 4
Burford	Oct. 1, 2
Cayuga	Sept. 24, 25
Caledon	Oct. 3, 4
Caledonia	Oct. 10, 11
Casselton	Sept. 17
Campbellford	Sept. 24, 25
Castleton	Oct. 1, 2
Carp	Oct. 1, 2
Campbellville	Oct. 8
Cookstown	Oct. 1, 2
Cobden	Sept. 23, 24
Cornwall	Sept. 6, 7
Coe Hill	Sept. 20
Collingwood	Sept. 24, 25, 26, 27
Comber	Sept. 30, Oct. 1
Colborne	Sept. 30, Oct. 1
Clarksburg	Oct. 1, 2
Delaware	Oct. 16
Deshoro	Sept. 26, 27
Delta	Sept. 24, 25
Dorchester	Oct. 2
Durham	Sept. 24, 25
Dundalk	Oct. 3, 4
Dunnville	Sept. 17, 18
Dunthurch	Oct. 4
Drumbo	Sept. 24, 25
Dresden	Oct. 8, 9
Elmvale	Oct. 7, 8, 9
Emsdale	Sept. 24, 25
Emo	Sept. 19, 20
Erin	Oct. 16, 17
Essex	Sept. 24, 25, 26
Exeter	Sept. 16, 17
Fergus	Oct. 1, 2
Faversham	Oct. 3, 4
Fenwick	Sept. 30, Oct. 1
Fenella	Sept. 26, 27
Fort Erie	Oct. 3, 4
Florence	Oct. 3, 4
Flesherton	Sept. 26, 27
Frankford	Sept. 19, 20
Frankville	Sept. 26, 27
Galt	Oct. 1, 2
Georgetown	Oct. 1, 2
Gore Bay	Oct. 3, 4
Gooderham	Oct. 3
Gordon Lake	Sept. 27
Glencoe	Sept. 24, 25
Grand Valley	Oct. 15, 16
Guelp	Sept. 17, 18, 19
Hanover	Sept. 26, 27
Haliburton	Sept. 26
Harriston	Sept. 26, 27
Harrow	Oct. 8, 9
Highgate	Oct. 11, 12
Holstein	Oct. 1
Huntsville	Sept. 24, 25
Hderton	Sept. 27
Ingersoll	Sept. 24, 25
Jarvis	Oct. 3, 4
Keene	Oct. 2, 3
Kemble	Sept. 26, 27
Kemptonville	Sept. 17, 18
Kinmount	Sept. 10, 11
Kilsyth	Oct. 10, 11
Kirkton	Oct. 3, 4
Listowel	Sept. 24, 25
Lansdowne	Sept. 26, 27
Lakefield	Sept. 24, 25
Langton	Oct. 12
L'Amable	Oct. 1

(Continued on next page)

Warranted to give satisfaction.



### GOMBAULT'S CAUSTIC BALSAM

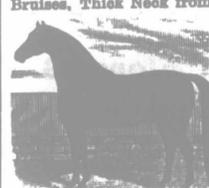
A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hook, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diptheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Toronto, Ont.

### Dr. Page's English Spavin Cure.

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



This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: DR. J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.

### Tuttle's Elixir



Well nigh infallible cure for colic, curb, splint, spavin and other common horse ailments. Our long-time standing offer of

\$100 Reward

for failure, where we say it will cure, has never been claimed. All druggists sell it. Tuttle's Family Elixir, the great household remedy. Tuttle's American Worm Powder cures American Condition Fowlers, White Star and Hoof Stainment. 100 page book "Veterinary Experience," free. Be your own horse doctor. Makes plain the symptoms, gives treatment. Send for a copy.

TUTTLE'S ELIXIR CO., 66 Beverly Street, Boston, Mass. Canadian Branch, 22 St. Ursula St., Montreal, Quebec.

### SHOE BOILS Are Hard to Cure, yet



will remove them and leave no blemish. Does not blister or remove the hair. Cures any puff or swelling. Horse can be worked \$2.00 per bottle, delivered. Book 6-C Free. ABSORBINE, JR., for mankind, \$1.00 per bottle. Cures Boils, Bruises, Old Sores, Swellings, Varicose Veins, Varicocele, Hydrocele. Alays Pain

W. F. Young P.D.F., 73 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

### Imp. Clydesdale Fillies!



Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality, and all in foal. Also one-year-old stallion. Write me, or come and see them.

Nelson Wagg Clearmont P.O. & Stn. Clydesdales, Shorthorns and Cotswolds—For richly bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season.

J. C. ROSS, Jervis P.O. & Stn. YOUNG MEN WANTED—To learn the Veterinary Profession. Catalogue sent free. Address VETERINARY COLLEGE, Grand Rapids, Mich. L. L. Conroy, Prin.

## IMPORTANT SALE OF Imported Clydesdales

WEDNESDAY, JUNE 26, '07

AT THE COMMERCIAL HOTEL STABLES, GUELPH, ONT.

### 25 Imported Clydesdale Mares

Personally selected by J. F. Elliott, Oxford Centre, Ont., from leading Scottish studs, about half of which are sired by the noted breeding stallions, Baron's Pride and Hiawatha, the balance by such grand horses: Balmedies Queen's Guard, Here's Luck, and The Dean. This should prove a great attraction, as among the mares is the champion show mare, Lady Sterling, by Labori, winner of the £100 shield at Glasgow. Sale to commence at 1 p. m. For catalogues, which will be ready about June 20th, apply to Capt. T. E. Robson, London, Ont.

Auctioneers **CAPT. T. E. ROBSON.** **J. F. Elliott,**  
**THOS. INGRAM.** Proprietor,  
Oxford Centre, Ont.

### COMBINATION SALE

## Imported Clydesdales

At Elora, G. T. R. and C. P. R.

THURSDAY, JUNE 27, '07

**25 Imported Mares and Fillies** Specially selected from leading studs in Scotland for size, quality and breeding. Sired by some of the most noted stallions of the breed. Just the class needed for the improvement of draft horses in Canada.

Elora is 14 miles from Guelph.  
Sale to commence at 1 p. m.  
For catalogues and full information apply to

**R. A. & J. A. WATT, ELORA.**  
**ANDREW AITCHISON, GUELPH.**

Capt. T. E. Robson and Thos. Ingram, Auctioneers.

#### THE NEW COOK.

A young housekeeper in one of the suburbs had just succeeded in getting a new cook, who came highly recommended. One day Nora made a sponge cake, which was so hard it could not be eaten. The housekeeper said:

"Nora, do you call this sponge cake? Why, it's as hard as can be."  
"Yes, mum," replied the cook, calmly.  
"That's the way a sponge is before it's wet. Soak it in your tea, mum."

A young teacher was striving earnestly to increase the vocabulary of her charges. She had placed a list of words upon the blackboard to be used in sentences. Billy, a notably lazy child, was called upon first.

"Billy, you may give a sentence in which the word dogma is correctly used," said the teacher.

Billy hesitated. Finally, in a burst of confidence, he replied, "Our old dog-ma has seven pups."

### Bargains in Cheap Power

We have the following new Gasoline Engines for sale at a very low price:

Four 1 1/2 H. P. Gasoline Engines (Bates & Edmunds, Lansing, Mich.) Twelve 8 H. P. Gasoline Engines (Lambert Mfg. Co., London, Ont.) Five 12 1/2 H. P. Gasoline Engines (Lambert Mfg. Co., London, Ont.) Also a number of second-hand engines in good order. **THE CANADIAN FAIRBANKS CO., Limited.** 26-28 Front Street West, Toronto.

#### THE MATTER WITH MIKE.

Sportsman—I wonder what's become of Mike? I told him to meet me here.

Driver.—Ach, 'tis no use tellin' him anything! Sure, sorr, at just goes in at wan ear and out at the other, like water off a duck's back!

#### THINK THIS OVER.

Of troubles connubial, jars and divorce, This, we believe, is the fruitfulest source—

A man falls in love with a dimple or curl,

Then foolishly marries the entire girl.

## Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with

**Fleming's**

**Fistula and Poll Evil Cure**

—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

**Fleming's Vest-Pocket**

**Veterinary Adviser.** Ninety-six pages, covering more than a hundred veterinary subjects. Durably bound, indexed and illustrated.

**FLEMING BROS., Chemists,**

**75 Church Street, Toronto, Ontario**

### Cream Separators at Half Price

We wish all who need a Cream Separator to read the following letter which speaks for itself:

Locksley, Ont., May 11, '07.  
Windsor Supply Co., Windsor, Ont.:

Please find enclosed the sum of 30c. for which send me India-rubber rings No. 47 for howl top No. 2 Windsor Cream Separator.

My separator has been in use for four years, and still gives as good satisfaction as it did the first day we used it.

Yours truly, T. HAMILTON.

N. B.—Please send catalogue of Threshermen's Supplies for 1907.

We receive scores of letters like the above from all parts of the Dominion. Send for circular, giving full particulars, by return mail. All orders filled the day received. Our prices are as follows:

No. 0, cap. 100 lbs. milk per hour ..... \$15 00  
No. 1, cap. 210 lbs. milk per hour ..... 25 00  
No. 2, cap. 340 lbs. milk per hour ..... 35 00  
No. 3, cap. 560 lbs. milk per hour ..... 45 00  
Every Separator guaranteed, and one week's FREE TRIAL given.

Write to-day for Illustrated Circular and catalogue, showing Home Repairing Outfit, Farmers' Handy Forge, Spraying Pumps, and 1,000 other things every farmer and dairyman needs. Address **Windsor Supply Co., Windsor, Ont.**

### Notice to Horse Importers

**GERALD POWELL,**  
INTERPRETER,  
LILLE, FRANCE,

Is well posted on the Percheron, French Draft, Belgian and French Coach horse trade, can meet importers at any port in France or Belgium. 17 years' experience, and best of references. Correspondence solicited. All information about shipping, pedigrees and banking.

**3.00 P. M.** Commencing June 1st, daily (except Sunday) for Charlotte (Rochester), 1,000 Islands, Rapids, St. Lawrence, Montreal and Quebec.

**Saturday to Monday Outings**  
TO 1,000 ISLANDS COMMENCE JUNE 1ST.

Tri-weekly service through Bay of Quinte to Montreal and intermediate points, Tuesday, Thursday and Saturday, leaving Toronto at 5.30 p. m.

For full particulars call on any R & O. agent, or address:  
**H. FOSTER CHAFFEE, A.G.P.A., Toronto**  
**When Writing Mention Advocate**

Leamington	Oct. 2, 3, 4
Little Current	Sept. 26
Lindsay	Sept. 19, 20, 21
Lombardy	Sept. 28
Loring	Oct. 4
Lyndhurst	Sept. 19, 20
Maxville	Sept. 24, 25
Markham	Oct. 2, 3, 4
Marshville	Sept. 27, 28
Madoc	Sept. 12, 13
Manitowaning	Oct. 1, 2
Mattawa	Sept. 26, 27
Markdale	Oct. 1, 2
McDonald's Corners	Sept. 26, 27
Merrickville	Sept. 19, 20
Meaford	Sept. 26, 27
Metcalf	Sept. 24, 25
Milverton	Sept. 26, 27
Milton	Oct. 10, 11
Mildmay	Sept. 23, 24
Midland	Sept. 26, 27
Morrison	Oct. 1
Morrisburg	Sept. 3, 4
Mt. Hope	Oct. 2
Mt. Hamilton	Oct. 3, 4
Mt. Brydges	Oct. 4
Mt. Forest	Sept. 17, 18
Murillo	Oct. 2
Napanee	Sept. 18, 19
Newboro	Aug. 31, Sept. 2
Newington	Sept. 10, 11
New Liskeard	Sept. 26, 27
Niagara-on-the-Lake	Sept. 23, 24
Niagara Falls	Sept. 26, 27
Norwich	Sept. 17, 18
Norwood	Oct. 8, 9
Oakville	Sept. 26, 27
Onondaga	Oct. 1
Orono	Sept. 16, 17
Orangeville	Sept. 26, 27
Oshawa	Sept. 24, 25
Osnabrock Centre	Oct. 1, 2
Otterville	Oct. 4, 5
Owen Sound	Sept. 13, 14
Paisley	Sept. 24, 25
Paris	Sept. 26, 27
Palmerston	Sept. 19, 20
Perth	Sept. 4, 5, 6
Peterboro	Sept. 26, 27, 28
Petrolia	Sept. 19, 20, 21
Pictou	Sept. 25, 26
Port Elgin	Sept. 26, 27
Port Hope	Oct. 1, 2
Priceville	Oct. 3, 4
Queensville	Oct. 9, 10
Rainham Centre	Sept. 19
Renfrew	Sept. 23, 24, 25
Ripley	Sept. 24, 25
Richmond	Sept. 23, 24, 25
Rockton	Oct. 8, 9
Rocklyn	Oct. 3, 4
Russell	Sept. 27
Sarnia	Sept. 23, 24, 25
Scarboro	Sept. 25
Seaforth	Sept. 19, 20
Simcoe	Sept. 24, 25, 26
Shelbourne	Sept. 24, 25
Shanty Bay	Sept. 17
Shedden	Sept. 25
Shannonville	Sept. 28
South Mountain	Sept. 12, 13
Springfield	Sept. 19, 20
Smithville	Sept. 27, 28
Spencerville	Oct. 1, 2
Spicedale	Sept. 27
Stirling	Sept. 26, 27
Stratfordville	Sept. 18
Streetsville	Sept. 25
Stony Creek	Sept. 26, 27
St. Mary's	Sept. 25, 26
Strathroy	Sept. 16, 17, 18
Sutton	Sept. 26, 27
Tara	Oct. 1, 2
Teeswater	Oct. 3, 4
Theford	Sept. 24
Thamesville	Oct. 1, 2
Thorold	Oct. 8, 9
Thorndale	Oct. 1
Tillsonburg	Oct. 1, 2
Tiverton	Oct. 1
Tweed	Oct. 2
Utterson	Oct. 1, 2
Underwood	Oct. 8
Vankleek Hill	Sept. 13, 14
Watford	Sept. 25, 26
Waterford	Oct. 3
Walkerton	Sept. 19, 20
Warkworth	Oct. 3, 4
Wallaceburg	Oct. 3, 4
Wallacetown	Sept. 26, 27
Waterdown	Oct. 1
Wellesley	Sept. 23, 24
Western Fair, London	Sept. 6 to 14
Wellandport	Oct. 10, 11
Welland	Oct. 1, 2
Williamstown	Sept. 25, 26
Windham Centre	Oct. 8
Wingham	Sept. 26, 27
Winchester	Sept. 5, 6
Warton	Sept. 25, 26
Woodstock	Sept. 18, 19, 20
Wooler	Sept. 18
Wyoming	Sept. 27, 28

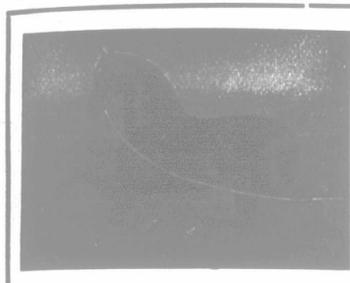


### HOW TO BUILD A GOOD FENCE

Everyone intending fence building should send for our folder on Erecting Fences. It's full of valuable information on fence building, tells how to erect woven wire fencing quickly and substantially, describes the manufacture of fence wire and has an article quoted from bulletin of U. S. Dept. of Agriculture on concrete post making, showing how these durable posts can be economically made at home. Don't fail to write for a copy. It's free.

**THE BANWELL HOXIE WIRE FENCE CO., Ltd.**  
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### GLYDESDALES AND FRENCH COACHERS, IMP.



Scottish and Canadian winners, stallions, mares and fillies. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acme. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in both France and Canada. Our prices are right, and our horses as good as the best. Long-distance telephone.

**ROBT. NESS & SON, Howick, Quebec.**



### OAK PARK STOCK FARM CO., LTD. BRANTFORD, ONTARIO.

Breeders and Importers of Hackneys, Clydesdales, Shropshire Sheep, Berkshire Pigs and Scotch Collie Dogs.

A number of choice Hackneys of both sexes for sale. A number of choice Shropshires of both sexes from our imported flock, for sale. Will have a number of snow pens, will be ready for sale by the end of July. Some choice Berkshire boars and sows for sale from our imported stock. We are booking orders for Scotch collie puppies from our imported kennel.

### Another Great Year for



Gains — gains — gains in every department — is the splendid record made by this Company during the past year.

Here are the facts for 1906:—

Gains in Income . . . . .	\$ 115,904.22
Gains in Assets . . . . .	1,089,447.69
Gains in Surplus . . . . .	251,377.46
Gains in Insurance . . . . .	2,712,453.00

Such increases clearly demonstrate the esteem in which this Company is held by Canadians.

They know that when they take a policy in The Mutual Life, they become an owner of the Company, and share in all the profits.

Write for copy of the 37th Annual Statement and other valuable information, to any of the Company's Agents, or to

Head Office, Waterloo, Ont.

### The Maritime Stanchion

PATENTED 1906.

Has AUTOMATIC LOCK which is simple and sure. SWINGS FREELY so as to give the animal the utmost comfort. Holds animal absolutely secure. The simplest, safest, strongest and cleanest tie on the market. Send for illustrated folder.

**BAILEY-UNDERWOOD CO., Limited, New Glasgow, Nova Scotia.**

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Best drillers known. Great money earners! **WELLS MACHINE CO., TIFFIN, ONT.**

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My "Star Brand" Wood-Ash-Fertilizer is Nature's fertilizer for the Lawn, Garden, Orchard or Farm. They contain plant food in a concentrated form, dry, fine, and guaranteed in first-class condition; no obnoxious odors. Put up in strong bags of 100 lbs. each. We employ no agents, sell at one price to all, direct to customers. Prompt shipment to all points. Prices, in lots of 200 lbs. or more, quoted upon application. Address: **CHAS. STEVENS, Napanee, Ont.** Drawer 641.

### Aberdeen - Angus Bulls FOR SALE.

One 17 months old, the other 15 months old. Prices \$85 and \$75. Good, growthy animals, of excellent breeding and type. Come and see them or address: **WM. ISCOE, P. O. and G. T. R. Stn., Sebringville, Ont.**

### Aberdeen - Angus Cattle

If you want anything in this line, write or come and see them at Elm Park, Guelph. **James Bowman, Guelph, Ont.**

### The Sunnyside Herefords

To make room for my new importation, I will sell four cows with heifer calves by side, two yearling heifers, one yearling bull and two bull calves at a 20% reduction if taken in the next 30 days. The best of breeding and individual merit. Herd is headed by a son of the grand champion, Prime Lad. Address: **M. H. O'NEIL, Southgate, Ont.**

### Broxwood Herefords

Cows, heifers and calves

For Sale.

**R. J. PENHALL, Naber, Ont.**

**FOREST VIEW FARM HEREFORDS** Four bulls from 8 to 19 months old; prize winners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale. **JOHN A. GOVINDLOO, Forest Stn. and P.O.**

**Scotch Shorthorns** A grand pair of yearling bulls, also a few heifers, bred from Imp sire and dams. Pure Scotch and fashionably pedigreed. Will be sold right. **C. RAWKIN & SONS, Wyebridge P. O., Wyevale Station.**

### QUESTIONS AND ANSWERS. Veterinary.

#### BRAIN TROUBLE.

Calf, five months old, got white film over eyes and took fits; became totally blind, and died in five days. Give cause and cure. **SUBSCRIBER.**

Ans.—The calf had a growth upon the brain for which nothing could have been done. The cause is hard to give, and is uncontrollable. There was doubtless a congenital predisposition. **V.**

#### ENLARGEMENT ON HOCK.

Mare hit the bone just outside the seat of curb, and a little hard lump has appeared. I want it removed without blistering. Is it possible to cure a curb with certainty? **G. T.**

Ans.—This enlargement is a thickening of the covering of the bone, and is very hard to reduce. Rub a little of the following liniment well into it, once daily, and continue treatment for two or three months. Take 4 drams each of iodine and iodide of potassium, and 4 ounces each of glycerine and alcohol. Mix.

In most cases the lameness from curb can be cured, but it takes a long time in many cases to remove the enlargement, and in some cases it cannot be done. There is no certainty about treating some cases. **V.**

#### INDIGESTION.

Four-year-old horse bloats, and lies down and breathes heavily occasionally. My veterinarian gave me some medicine and told me to give it regularly, along with a little linseed oil. So long as I gave him this he was all right; but I ceased giving it, turned him out on grass, brought him in in the evening, when he took a big drink of water, and in about three hours he bloated. I gave him baking soda, and he got all right. **J. H.**

Ans.—The horse has weak digestive powers, and a change in food or water is liable to cause indigestion, and it is probable some attack will prove fatal. The last attack was caused by the grass followed by water. You will need to be very careful that he gets no sudden change in food. Make any change gradually. He should have been left on grass for only about half and hour the first day, a little longer next day, etc., until he became accustomed to the change. The medicine your veterinarian gave you acted so well I think it would be wise for you to get some more. It is probable you will need to continue to give him medicine to aid digestion in order to avoid attacks, as the digestive organs are congenitally weak. I would advise 2 drams each of gentian and ginger, twice daily in damp food. **V.**

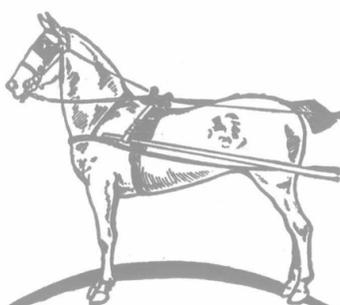
#### Miscellaneous.

#### MASTER AND SERVANTS.

If a young man and woman engaged with a farmer for a year at a certain wage, and were not satisfied for several reasons, and left before the year was up, could they claim the wages for the time they worked at the end of the year for which they were engaged, or could they now? **SUBSCRIBER.**

Ontario.

Ans.—It depends largely upon the "reasons" for which they left. According to the general rule, they would not be entitled to any wages whatever in respect of the time worked, but would be liable to pay damages for breach of contract. It may be, however, that their leaving the farmer's employ as they did was legally justifiable, and that they are, accordingly, entitled to be paid for the time they actually worked. Or even if they had not, strictly speaking, perfectly good legal grounds for the course they took, still the circumstances might be such that a court would allow them some amount for the services they had rendered. The matter is one in which the judge has a wide discretion. It is not stated how the wages were, by the agreement, made payable, and we cannot say whether proceedings could properly be taken now or not; but it is probable that it would be safer to sue at the end of the year of the contract, if at all. It would, of course, be best to arrange the matter now by negotiation, if possible, and have it disposed of.



Accidents to your horses may happen at any moment. **GET READY** for emergencies. Buy a bottle of

### Fellows' Leeming's Essence

For Lameness in Horses

Only 50c. a bottle—and saves dollars worth of time by curing lameness of every description.

At dealers, or from **12 National Drug & Chemical Co., Limited, MONTREAL.**

### FARM LABOR

If you want help for the farm, for the season of the year, write for application form to the

**BUREAU OF COLONIZATION Parliament Buildings TORONTO.**

#### SHORTHORNS AND BERKSHIRES

Three young bulls fit for service; the right sort at reasonable prices and easy terms. Also heifers and cows with calves at foot by Bando-leer-40106-. In Berkshires: Sows five months old, and pigs soon ready to wean. **F. Martindale & Son, Caledonia Sta., York P.O., Haldimand Co.**

#### GREEN GROVE SHORTHORNS

Fairy Queens, Urys, Floras, Glaras, Isabelias, Rose of Autumns, Village Girl. Females of all ages 3 choice young bulls. Prices right. Breeding unsurpassed. **W. G. MILSON, Spring P. O., Markdale Station.**

#### Shorthorns and Leicesters

Present offering: 1 extra good bull calf, 6 months old, from a grand milking young cow, and sired by Rosierucian of Dalmeny (Imp.); also young cows with calf at foot. Leicesters of all ages. Address: **W. A. Douglas, Caledonia Station, Tuscarora P. O.**

#### Shorthorns, Cotswolds and Berkshires.

For sale: 8 yearling bulls, also 5 bulls ranging from six to nine months; also yearling heifers and young calves. Will book orders for Cotswolds and Berkshires. **CHAS. E. BONNYCASTLE, P. O. and Stn. Campbellford, Ont.**

#### 1 BULL

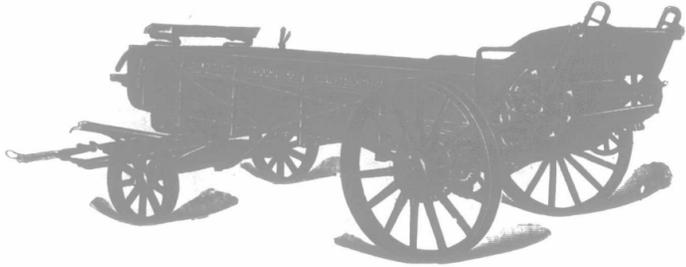
16 months old, sired by Royal Bruce, imported; 2 10 months old, sired by Lord Lieutenant, imported; cows and heifers imported and home-bred. All at reasonable prices. **SCOTT BROS., Highgate, Ont.**

#### J. Watt & Son

Are offering about one dozen females (all ages), most of them in calf or calves at foot, including some choice show yearlings and calves. Herd headed by Imp. Pride of Scotland and Heatherman. Prices moderate. Correspondence invited.

**SALEM P.O., Elera Station, G.T.R. and C.P.**

## FREE A SEVENTY-BUSHEL GREAT WESTERN SPREADER FREE



Have you 125 loads of manure, or more, to spread? Are you going to plant 25 or more acres of oats? If so, let us know, and we will show you how you can own a manure spreader absolutely FREE. Write just these words on a postal card or in a letter: I have ..... loads of manure to spread this spring. I will plant ..... acres of oats. I have ..... acres of land; ..... horses; ..... cows, and ..... small stock. Write to-day.

THE WILKINSON PLOUGH COMPANY, LTD., TORONTO, CAN.



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When a man buys a Tudhope Carriage, he knows he has gotten a full money's worth. He knows he has bought the best materials—put together by Tudhopes who have been born and raised in the business. The very name Tudhope means money to every man who buys Carriages.

### TUDHOPE No. 52

is daily adding fame to the Tudhope Carriage Makers. Cornish body. Side spring gear—double reach with full length steel plates. Bell collar steel axles. Dayton fifth wheel. Quick shifters. Double bar dash rail, seat handles, and hubcaps nickel plated on brass. Write for free illustrated catalogue.

THE TUDHOPE CARRIAGE CO., Ltd.

ORILLIA, Ont.

## HOMESEEKERS' STRUAN SHORTHORNS.



SECOND-CLASS ROUND-TRIP EXCURSIONS TO  
**MANITOBA  
SASKATCHEWAN  
ALBERTA**

**DATES** Excursions leave Toronto Tuesdays, June 4, 18; July 2, 16, 30; August 13, 27; Sept. 10 and 24. Tickets good to return within sixty days from going date.

**RATES** Are the same from all points in Ontario ranging from \$32.00 round-trip to Winnipeg to \$42.50 round-trip to Edmonton. Tickets to all points in the North-west.

**TOURIST SLEEPERS** A limited number of Tourist Sleeping Cars will be run on each excursion, fully equipped with bedding, etc., smart porter in charge. Berths must be secured and paid for through local agent at least six days before excursion leaves.

**COLONIST SLEEPERS** In which there is no extra charge for berths, passengers supplying their own bedding, will be used as far as possible in place of ordinary coaches.

Rates and full information contained in free Homesekers' pamphlet. Ask nearest C.P.R. agent for a copy, or write to

G. B. FOSTER, District Pass. Agt., C.P.R., Toronto

## ALBERTA

Offers Opportunities.

Northern Alberta is the garden land of the West. The district around MILLET is unsurpassed. The town presents many chances for business openings. For full information write:

**P. J. MULLEN,**

Sec. Millet Publicity Committee.

MILLET, ALBERTA.

## FOR SALE: SCOTCH COLLIE PUPS

Sable and white, at \$5 to \$10, f. o. b.

J. K. HUX, Box 154, RODNEY, ONT.

## Maple Leaf Shorthorns

Chancellor's Model now heads the herd, which contains Crimson Flower, Lady Fanny, Miss Ramsden, Rosemary, Matchless, Diamond, and Imp, Besie, Wenlock. Now offering a lot of choice calves, both sexes. Israel Groff, Alma, Ont.

For sale: the well-known bull, Scottish Beau (imp.) (36093), by Silver Lake. Seven years old. Active and sure. Price very moderate.

N. S. ROBERTSON, ARNPRIOR, ONT.

## Valley Home Shorthorns AND BERKSHIRES.

Offering 5 choice bulls, 11 to 14 months old. Young cows and heifers in calf, and yearling heifers. Young sows safe in pig and bears and sows three months old, of prolific strains.

S. J. PEARSON, SON & CO., Meadowvale, Ont.

Stations: Meadowvale, C.P.R.; Brampton, G.T.R.

## SHORTHORNS

One beautiful roan bull for sale, sired by Derby, Imp., the great stock bull. This is a grandly-bred bull, and will make a good show bull; and also a grand getter. We also have several first-class heifers of breeding age, also some cows in calf or calves at foot—imported and home-bred.

W. J. SHEAN & SON, Box 856, Owen Sound, Ont.

## White Hall Shorthorns

Missies, Cecillas, and Lady Victorias. 4 young bulls, 7 heifers, and a few older females. Bred right and will be sold right.

N. A. Steen, Meadowvale P.O. and Station, Peel Co.

## Shorthorns, Clydesdales and Shropshires.

In Shorthorns we have 100 head to select from, of both sexes and all ages. No fancy prices asked. Several choice young Clyde mares and fillies. 75 Shrop. lambs of both sexes. Small profits and quick returns is our motto.

EDWARD E. PUGH, Clarendon P. O. and Station. Telephone connection.

## MAPLE + GROVE + STOCK + FARM Scotch and Scotch-Topped SHORTHORNS

Present offering: Cows and heifers in calf to Lord Mysie—59627. Some good young bulls and prizewinning heifers at very reasonable prices. For particulars write to

L. B. POWELL, Wallenstein P. O., Wallenstein Station on the Guelph and Goderich Ry., C.P.R. Farm one-half mile from station.

## Queenston Heights Shorthorns

Two high-class Cruickshank herd bulls. Show animals in bull and heifer calves. Straight Scotch, Canadian and American registration. Easy prices.

HUDSON USHER, Queenston, Ontario.

## QUESTIONS AND ANSWERS. Miscellaneous.

### SOWING MILLET.

What is the proper time to sow millet, and the amount of seed required per acre? H. L. D.

Ans.—Any time after corn-planting season. It requires a warm soil and warm weather. It may be sown as a catch crop, as late as July. Sow two or three pecks of seed per acre.

### LINE FENCING.

A owns a farm from which there are village lots and a church lot sold. Who has to keep up line fences between said lots and farm? A SUBSCRIBER. Ontario.

Ans.—The adjoining owners; that is to say, the owners, respectively, of the farm, and of the church and village lots, in just proportions. If they cannot agree upon such proportions, then the fence-viewers of the locality should be called in to arbitrate and dispose of the matter.

### CASTRATING SUCKING COLT.

What is your opinion of castrating sucking colts? Would it be hurtful to their growth or development afterwards? Would some of your readers, who have had experience in this matter, please give their experience through the columns of your valuable paper? SUBSCRIBER.

Ans.—The testicles of a colt do not usually descend into the scrotum until he is six to ten, and, in some cases, twelve months old, and, unless this has taken place, the operation cannot well be performed. Otherwise, it would not be hurtful to the health of the colt. It is claimed that leaving colts entire till two years old ensures a stronger neck and crest, while one castrated at a year old or younger will have a lighter neck and more feminine appearance in front. Will some of our readers give their experience on this question?

### THUMPS IN PIGS.

Pigs act as if they had the heaves for two or three weeks and die. I have had some take it before weaned, others when they are about 100 lbs. First symptoms: rough, unthrifty coat; a hacking cough; then poor appetite, come to feed, take a little, then go back to bed, then miss a meal, and finally die as if starved; breathe with great difficulty after they have been sick a few days.

Ans.—We judge this is thumps, due to liberal feeding without sufficient exercise. Prevention is better than cure in this as most other cases, though it is difficult sometimes, especially in winter when snow is deep, to give the necessary exercise to keep pigs in good health. Keeping a mixture of ashes, or charcoal, salt and sulphur, where they can take it at will, is helpful in this respect, together with roots and bran as part of their rations.

### SOAP FOR OYSTER-SHELL BARK-LOUSE—SOFT-MAPLE PLANTING.

1. Is common soap as good for spraying for bark-lice in June as whale-oil soap, and how should it be mixed for spraying?

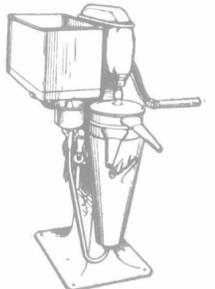
2. Which is the best time for planting soft maples, in the spring or fall? Where can they be procured, as I would like to set 1,000? ENQUIRER.

Ans.—1. Common household soap, when used to kill oyster-shell bark-lice, should be mixed with kerosene (coal oil). The soap holds the kerosene in suspension, and forms the well-known effective insecticide called kerosene emulsion. It is composed of: Kerosene, 2 gallons; rain water, 1 gallon; soap, ½ pound. Dissolve soap in water by boiling, take from fire, and, while hot, turn in kerosene, and churn briskly for five minutes. For use, dilute with nine parts of water. So that the above three gallons of stock emulsion will make 30 gallons of spraying mixture. Apply with a good spray pump.

2. Probably spring would be the safer time in your section. For trees, correspond with leading firms of seedsmen, or write to J. J. Zavitz, Department of Forestry, Ottawa, O. Guelph.

## Because You Need The Money

It's your business and if you don't attend to it, who will? You cannot afford to keep cows for fun. That isn't business, and, furthermore, it isn't necessary. There is money in cow keeping if you go at it right, and besides there is more fun in going at it right than there is in staying wrong.



You need a Tubular Cream Separator because it will make money for you; because it saves labor; because it saves time; because it means all the difference between cow profits and cow losses.

Look into this matter; see what a Tubular will do for you and buy one because you need it.

How would you like our book "Business Dairying" and our catalog B. 18 both free. Write for them.

The Sharples Separator Co.

West Chester, Pa. Toronto, Can. Chicago, Ill.

### FOR SALE

## 8 SCOTCH SHORTHORN BULLS

Aged 6 to 14 months. Marr Beautys, Campbell Claret, Bessies, Claras and Rosebuds, got by the Broadhooks bull, Broadhooks Prince (imp.) 55072. Also cows and heifers in calf or with calves at foot or being bred to same bull. Prices lowest and terms easy.

DAVID MILNE, Ethel, Ont.

## J. BRYDONE,

Breeder of pure Scotch Shorthorns. Breeding females imported. Headed by the pure Cruickshank (Duthie-bred) bull, Stittyon Victor (imp.) 50063 = (87397). Young stock from imp. dams for sale. Prices reasonable. Telegraph, Telephone, R. R. Sta. and P. O., Milverton.

## WILLOWBANK SHORTHORN HERD

ESTABLISHED 51 YEARS. FOR SALE: Young bulls and heifers from imp. sires and dams, of most fashionable breeding and type; exceedingly choice. Prices to suit the times. JAMES DOUGLAS, Caledonia P.O. and Sta.

## Glen Gow Shorthorns

Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp. Joy of Morning, and out of Imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance phone. WM. SMITH, Columbus P.O. Brooklin & Myrtle Stns.

## Young Shorthorn Bulls!

Am now offering 3 grand ones from Scottish Peer (imp.). Will make show animals. A few Berkshire boar pigs 3 months old. Also Leicester sheep. JAS. SNELL, Clinton, Ont.

ARLINGTON SHORTHORNS AND LEICESTERS Present offering: 3 bulls 8 and 11 months old, by Christopher's Heir 45459; also a few females of different ages, some from imp. sires. No sheep for sale at present. Stock guaranteed as represented. John Lishman, Hagersville P.O. & Sta.

## SCOTCH SHORTHORNS

For sale: 7 young bulls, also my stock bull, Royal Prince = 31241 = (roan), sire of the two noted females, Fair Queen and Queen Ideal, World's Fair champion. H. K. FAIRBAIRN, Thedford, Ont.

High-class Shorthorns Royal Chief, a son of Mildred's Royal, at head of herd. We are offering a few choice heifers of show-ring form. Pure Scotch. Terms reasonable. A. DUNCAN & SONS, Carleton Place.

Maple Ridge Shorthorns For sale: One 15-month-old, red bull by son of Imp. Prince Louis, and out of a top cow (a wonderful milk), and a 5-mos. old full brother; also a red yr.-old, with Imp. sire and dam—a show bull; half a doz. 1 and 2 yr. old heifers. Show stuff. D. CURRIE, Black's Corners P.O., Crombie Sta.

# Shorthorns!

## BELMAR PARC.

John Douglas, Manager. Peter White, Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls:

- Nonpareil Archer, Imp. Proud Gift, Imp.
- Marigold Sailor. Nonpareil Eclipse.

Females. Imported and from imported stock in calf to these bulls.

An unsurpassed lot of yearling heifers.

# AT "MAPLE SHADE"

Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds, and some that should produce the best prime steers. We have a bull catalogue. Send for one.

**JOHN DRYDEN & SON, Brooklin, Ont.**  
Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephone.



## Special Offering of Scotch SHORTHORN BULLS

2 just past two years old; 15 just over one year old; 7 just under one year old.

The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.

**John Giancy, H. CARGILL & SON, Cargill, Ont.**  
Manager.

## Pure Scotch Shorthorns

We are offering 10 young bull's, fit for service, all from imported sires and dams, among them some choice herd bulls. Cows and heifers of all ages, including some excellent show heifers. One imported Clydesdale mare, four years old, with an extra good foal at her side. Young Yorkshires of both sexes. Long-distance telephone.

**W. G. PETTIT & SONS, Freeman, Ont., Burlington Jct. Stn.**

## Shorthorns and Clydesdales

I am now offering 6 young bulls from 8 to 30 months old, all Scotch bred, two of them from extra good milking families, and a few registered fillies of good quality.

**JOHN MILLER, Brougham, Ont.**  
Claremont Sta., O.P.R.; Pickering, G.T.R.

**JOHN LEE & SONS, Highgate, Ont.**



### SHORTHORNS & LINCOLNS

The champion herd of Elgin Kent and Essex counties.

For Sale: 6 choice young bulls 8 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

## Glover Lea Stock Farm SCOTCH SHORTHORNS

Superior breeding and individual excellence. For sale: Bulls and heifers—reds and roans, some from imp. sire and dam. Visitors met at Ripley station, G. T. R.

**R. H. REID, PINE RIVER, ONTARIO.**

## The Salem Herd of Shorthorns

IS HEADED BY JILT VICTOR (IMP.).

It contains a number of the most noted matrons of the breed. Write for what you want.

**R. A. & J. A. Watt, Salem, Ont.**  
Elora station, G. T. R. and C. P. R.

## MAPLE GROVE SHORTHORNS



My present offering consists of imported and home-bred cows and heifers, also four young bulls bred by Lord Banff's Conqueror. He is one of the best stock bulls of his breed. Terms and prices to suit the times.

**C. D. WAGAR, Enterprise Stn. & P. O., Addington Co.**

## A. EDWARD MEYER, Box 378, Guelph, Ont.,

Breeds SCOTCH SHORTHORNS of the following families: Cruickshank Bellonas, Mysies, Brawitt Buds, Villages, Broadhooks, Campbell Claretts, Miras, Urys, Bessies, Bruce Mayflowers, Augustas, Marr Missies and Lovelaces, and others. Herd bulls: Scottish Hero (imp.) =55012= (90065), Sittytan Lad =67214=. Correspondence solicited. Visitors welcome. Long distance phone in house.

## SHORTHORNS

Six superior yearling bulls, some of them out of great milk cows; heifers of all ages. A lot of very big yearlings and a few heifer calves cheap.

**CLYDESDALES**

Two pure 5 years old, one an extra good one and a pair of geldings 4 years old.

**JAS. McARTHUR, Gobles, Ont.**

## Glencro Shorthorns and Lincolns

Imp. Marr Boan Ladys, Missies, Miss Ramsdens and Urys. Strictly high-class in quality and breeding. Winners at Canada's leading fairs. Five grand young bulls, from 9 to 12 months old. Two from great milking dams (over 60 lbs. per day). Prices right. Come and see them, and you will buy. One hundred head of Dudding-bred Lincolns. Grand crop of lambs from imp. sires and dams.

**A. D. MCGUGAN, Rodney, Ont.**

## DOMINION SHORTHORN HERDBOOK WANTED.

The Dominion Shorthorn Breeders' Association will pay \$1 each for the following volumes of their herdbooks: Volumes 8, 9, 12, 13, 14, 15, 16, 17 and 19. Parties having these volumes to part with, write for wrappers and mailing instructions to

**W. G. Pettit, Sec.-Treas., Freeman, Ont.**

## Pleasant Valley Shorthorn:

Herd headed by Imp. Ben Lemond =45160=, assisted by Bud's Emblem, 2nd-prize senior bull at Toronto, 1906, son of Old Lancaster 50068. Correspondence solicited. Inspection invited.

**Geo. AMOS & SON, Moffat Sta. & P. O., C. P. R.**  
Farm 11 miles east of City of Guelph.

## John Gardhouse & Sons

Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses, and Lincoln sheep. Call and see us.

**Highfield P. O., Weston Station 3 1/2 Miles. Telephone**

## Spring Valley Shorthorns

Bulls in service are: Bapton Chancellor (imp.) =40359= (78286), Clipper Chief (imp.) =64220=. Stock for sale at all times.

**KYLE BROS., Afr. Ontario**

**SHORTHORNS, YORKSHIRES and S.-C. WHITE LF GHORNS.**—I have sold all my young bulls advertised, but can offer straight Scotch-bred heifers of the noted \$2,000 bull, Joy of Morning (imp.) =32070=, and young cows bred to him. Also choice Yorkshires, 5 months old, imp. sire and dam. Leghorn eggs supplied at 75c. per 13. **Geo. D. Fletcher, Binkham, Ont., Erin Station, C. P. R.**

## Scotch Shorthorns

Claretts, Stanfords, English Ladys, Mildreds, Nonpareils. Present offerings by Springhurst 44864 and Mildred's Royal. Prices moderate. **F. W. EWING, Salem P. O., Elora Station.**

## Blm Park Shorthorns, Clydesdales & Berkshires

Herd headed by the choicely-bred bull, British Flag (imp.) 50016. Stock of all ages for sale.

**JOHN M. BECKTON, Glencoe, Ontario.**  
G.T.R., C.P.R. & Watash. Farm adjoins town limits.

**MAPLE HILL STOCK FARM—High-class Scotch Shorthorns.** Herd headed by Rose Victor =64835= and Victor of Maple Hill =65490=, both sons of the Duthie-bred bull, Sittytan Victor (imp.) =50093=, and from richly-bred imported cows. **W. R. Elliott & Sons, Box 426, Guelph.**

## QUESTIONS AND ANSWERS. Miscellaneous.

### COMFORT FOR HIRED MAN—BARN PAINT.

1. We intend building a horse barn this summer, and when through, intend giving it one or two coats of paint, and would like to know what would be the cheapest and best sorts to use to get a good job. Would it be best to buy the material and mix it myself, or would it be better to buy the ready-mixed, put up in cans?

2. We also intend having a room in basement where the hired man can rest during stormy weather, and would like to know if there is any way of heating it without danger of firing the buildings.

Ans.—1. Venetian red, lead and oil is the mixture commonly used, with a white paint made of lead and oil for window casings and other trimming. Hardware dealers tell us a good ready-made barn paint can be obtained equally good, if not better and cheaper. A card, addressed to A. Ramsay & Son Co., paint-makers, Montreal, mentioning "The Farmer's Advocate," would bring you information on the subject.

2. Hot-water systems are regarded as most up-to-date, but whether one could be utilized at reasonable cost for heating the quarters where the hired man is to take the rest cure, we could not undertake to say. It would probably be safer and more economical to rest in the house, if there is no inside barn work to be done while the storm is on.

### MILLETS.

1. What time of the year should millet be sown?
2. How much should be sown per acre?
3. Which is the best for horses and cattle, millet or Hungarian?
4. What kind of soil would be best suited for these grasses?

Ans.—1. Millet is a hot-weather crop, and should not be sown till the ground is mellow and warm, say the last of May, or along in June. It is often grown as a catch crop, and if the seed-bed is properly prepared, it may be sown with success as late as July.

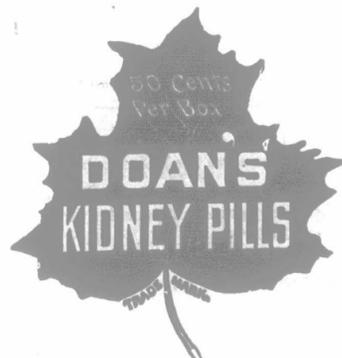
2. Of the ordinary varieties of millet grown for hay or soiling, two or three pecks of seed per acre is an ample allowance; when grown for pasture, three or four pecks should be used.

3. Hungarian grass is one of the many varieties of millet. The Department of Astrology, at Washington, D. C., classifies millets into four groups, viz., the Foxtail, the Barnyard, the Broomcorn and the Pearl millets. The Foxtail group includes the common millet, the German, the Hungarian and the Golden Wonder. The Barnyard group includes the Japanese varieties, which are of much larger and coarser growth than the Foxtail millets. The Pearl millets are also very large and rank-growing—something like corn or sorghum. On rich soil, these will grow to a height of eight or ten feet. At the Ontario Agricultural College, the following average yields have been obtained in a series of eleven years' testing several varieties:

	Tons green fodder (11 yrs.)	Tons hay (10 yrs.)
Holy Terror	10.98	4.72
Japanese Panicle	10.62	4.67
Golden Wonder	11.38	4.54
Magic	10.20	4.19
Japanese Barnyard	10.11	4.01
German or Golden	9.57	3.75
Hungarian Grass	8.87	3.59
Common	8.60	3.54
California	7.81	3.16
White French	6.16	2.49
Red French	4.98	2.10

Although some of the other varieties outyield the Hungarian, one can make no great mistake in using it for hay or green feed.

4. Millet does best on soils rich in humus, such as drained swamps and slough lands and muck soils not too wet or too dry. It will, however, do fairly well on almost any kind of soil, if sown on a good, well-prepared seed-bed.



## CURE ALL KIDNEY TROUBLES.

Mrs. Hiram Revoy, Marmora, Ont., writes: "I was troubled for five years with my back. I tried a great many remedies, but all failed until I was advised by a friend to use DOAN'S KIDNEY PILLS. I did so, and two boxes made a complete cure. I can heartily recommend them to all troubled with their back. You may publish this if you wish."

Price 50 cents per box or 3 for \$1.25, at all dealers, or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, Ont.

## Maple Lodge Stock Farm 1854-1907.

Am now offering a grand lot of young Shorthorn Bulls, several from choice milking strains. Also a few extra good heifers.

**A. W. SMITH, MAPLE LODGE, ONT.**

## Six Red Shorthorn Bulls

19 to 15 months old, got by Proud Gift =50077= (imp.); also cows and heifers, imported and home-bred. Inspection solicited. We think we have as good Shorthorn cattle as we have Lincoln sheep. 14 firsts out of a possible 19, our record at Chicago, 1906.

**J. T. GIBSON, Denfield, Ont.**

## GREENGILL HERD of high-class SHORTHORNS

We offer for sale 8 young bulls, a number of them from imp. sire and dam; also females with calf at foot or bred to our noted herd bull, Imp. Lord Roseberry.

**R. MITCHELL & SONS, Nelson P. O., Ont.; Burlington Junc. Sta.**

## T. DOUGLAS & SONS STRATHROY, ONT.



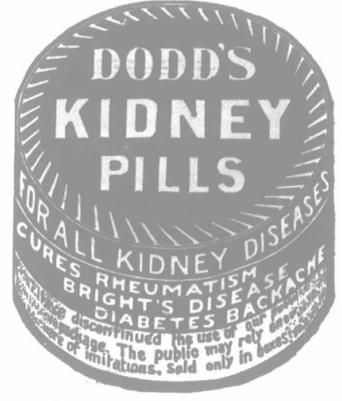
Breeders of Shorthorns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion, imp. and home-bred fillies. Write us what you want or come and see our stock. Farm 1 miles north of town.

## KENWOOD STOCK FARM. SHORTHORNS.

Headed by (Imp.) Jilt Victor =45157=. Offerings are two bull calves, an 11-months Miss Ramaden, from imp. sire and dam; a 19-months Missie, by Blythesome Brier, and other bulls; also heifers of choice breeding. A few choice Berkshire pigs just off the sow.

**HAINING BROS., Highgate, Ont. Kent Co.**

Never say anything wrong of anyone if you are not quite sure about it; and if you are, ask yourself, "Why do I say it?"—Lavater.



## Farm Labor Problem

The question with every farmer is what shall be done to solve the Farm Labor Problem?

The scarcity of help has made it necessary that every possible means for facilitating the work be employed.

We would like to help you out and would suggest that you buy a

## National Cream Separator

It will save time and labor in your dairy, as well as increase the quantity of your cream.

### The National

is easily operated, easily cleaned, and a perfect skimmer.

Manufactured by

**The RAYMOND MFG. COMPANY OF GUELPH, Limited**  
GUELPH, CANADA.



NATIONAL  
National style B.  
National style No. 1.  
National style No. 1A.  
National style No. 5.

## AYRSHIRES AND YORKSHIRES



We offer several young calves of either sex, of choice dairy breeding a few young cows and heifers in calf. We are importing several head of both sexes from Scotland. Our John Retson has already selected 1st and 2nd winners of "The Derby," 1906, and 1st and 2nd in the Official Milk Record by Highland and Ayr Society, 1906. He is bringing out young stock of the same stamp and breeding, which will be for sale. Write us if you want something right at a reasonable price. Young boars fit for service. Young sows just bred. Feb. and April pigs for sale.

**ALEX. HUME & CO., MENIE, ONT.**  
Long-distance 'phone (Campbellford).



**ROCK SALT**  
for horses and cattle, in ton and car lots.

**TORONTO SALT WORKS**  
TORONTO

**SPRINGBURN STOCK FARM, North Williamsburg, Ont.,** Ayrshires, both sexes and all ages; Berkshires, both sexes and all ages; Oxford Down sheep, a few choice ones left; Buff Orpington fowls, eggs \$1.00 per setting, \$4 per hundred. **H. J. WHITTAKER & SONS, Props.**

**SHANNON BANK STOCK FARM FOR AYRSHIRES AND YORKSHIRES**  
Young stock of both sexes for sale from imported stock.

**W. H. TRAN, Cedar Grove, Ont.**

**AYRSHIRES FROM A PRIZEWINNING HERD**  
Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON, Campbellford Stn., Menie P.O., Ont.**

**STOCKWOOD AYRSHIRES FOR SALE**  
All ages, from imp. and Canadian bred stock. Prices and terms to suit purchaser.  
**D. M. WATT, St. Louis Sta., Que.**

**Ayrshires 3 prizewinning bulls fit for service at reasonable prices also younger ones for quick buyers.**  
**N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. and Tel., Clappison, Ont.**

R. H. Reid, Pine River, Ont., writes: "Notwithstanding the scarcity of feed and the backwardness of the spring, our herd of Shorthorns have come through in excellent condition and the best of health. Although prices have ruled low the past season, we have been able to dispose of our surplus stock at a living profit, and I am pleased to say we have a lot of satisfied customers, and receive many kind words in letters of satisfaction, which is very encouraging. During the past winter, we have had upwards of 300 visitors to see our herd, a fact, which, alone, should speak for itself. We have on hand at present 12 young bulls, from 3 to 9 months, and also several heifers, the very best we have ever bred. Parties wanting a show bull or heifer at a fair price, or a good, strong bull for a grade herd, can be supplied with such well worth the money, and if, after having seen what we are offering, visitors say they are disappointed, we will pay their expenses here."

## Hillview Herd of Prizewinning AYRSHIRE CATTLE.

All animals bred and carefully selected for size, constitution, long teats and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

**A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont. Winchester Station, C. P. R.**

**Spring Brook Holsteins and Tamworths**  
Herd headed by the first-prize bull, Nannet Pietertje Paul, whose dam and sire's dam and g-dam have official butter records averaging over 25 lbs. in 7 days. Females bred and young bulls sired by him for sale. Tamworths of all ages and both sexes. Come and see, or write at once for prices.  
**A. C. Hallman, Breslau, Ont.**

**QUEEN CITY HOLSTEINS**  
If you would like to purchase a young Holstein bull whose sire's dam has an official record of 550 pounds of milk and 25 pounds of butter in seven days, write to **R. F. HICKS, Newton Brook P.O., York Co.**

## Lyndale Holsteins

Two bulls fit for service, sired by a son of De Kol 2nd's Butter Boy 3rd; also a number of bull calves, out of Record of Merit cows.

**BROWN BROS., LYN, ONTARIO.**

## Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

**G. W. Clemons, St. George, Ont.**

**Greenwood Holsteins and Yorkshires**  
For sale: A few richly-bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex.  
**D. Jones, Jr., Caledonia P. O. and Sta.**

**Grove Hill Holstein Herd**  
Offers high-class stock at reasonable prices. Only a few youngsters left. Pairs not akin.  
**F. R. MALLORY, Frankfort, Ontario, G. T. R. and C. O. Railway connections.**

## Holsteins and Yorkshires

**R. HONEY, Brickley, Ont.,** offers a very choice lot of young bulls, also boars and sows fit to mate.

## Imperial Holsteins

Bull calves for sale.

**W. H. SIMMONS, New Durham P. O., Ont.**

When Writing Please Mention this Paper

## GOSSIP.

P. O. Collins, Cedar Lodge Farm, Bowesville, Ont., writes: "I have received a large number of inquiries for Yorkshires as a result of my advertisement in 'The Farmer's Advocate,' and the majority of these inquiries were followed by orders, which proves the efficiency of your valuable journal as an advertising medium."

## MAPLE RIDGE SHORTHORNS.

In our advertising columns, Mr. D. Currie, Black's Corners P. O., Ont., six miles from Shelburne, and one mile from Crombie's Station, C. P. R., is offering for sale any or all of his small but well-selected herd of Shorthorns, among which is the ton-weight cow, Miss Tina, whose granddam was Imp. Duchess of Vittoria, of the great English dairy Waterloo strain. She was never beaten in the show-ring, and is now raising 2 calves; an extra heavy milker. Out of her, for sale, is a red yearling bull, by a son of Imp. Prince Louis, also a full brother, about five months old, and a splendid two-year-old heifer. There are also for sale a couple of half-sisters of hers. Another bull for sale is the red yearling, Maple Ridge Cronje, by Imp. Cronje 2nd, dam Imp. Celia, a Marr Clara. This is a grand good bull. Several one and two-year-old heifers are for sale, and are the right kind—Scotch and Scotch-topped. Parties interested should write quickly, or see the stock, as the advertisement will only appear a few times.

## TRADE TOPIC.

**WHERE TO BUY FIRST-CLASS ASHES.**—The indifference with which Canadian farmers have allowed their ashes to be bought up and exported to the United States is nothing short of criminal. Good unleached hardwood ashes at 10c. a bushel, a frequently-quoted price, are by far the cheapest commercial fertilizer we have, and the day is coming when farms from which ashes are now being sold will have to be enriched with German potash salts, compared to which wood ashes at 10c. a bushel would be a bargain. Wood ashes are the ideal fertilizer for clover, alfalfa, and all kinds of leguminous crops; while for orchards, gardens and lawns, to say nothing of such field crops as corn and potatoes, they are very valuable, especially when used in conjunction with barnyard manure. The ashes are not a complete fertilizer, but they supply a great deal of potash as well as some phosphoric acid and lime, and by applying them to land on which clover is regularly grown, they greatly invigorate its growth and thus enable it to entrap more nitrogen from the air, a part of which will be subsequently available in the form of clover sward, and the manure made by feeding the hay on the farm. Of recent years, there is a great demand growing up for good wood ashes, and many farmers and horticulturists would gladly buy if they knew where to obtain them. All such we have great pleasure in referring to Mr. Chas. Stevens, of Napanee, Ont., who has built up a big business in buying household ashes and exporting them to the United States, because the Americans have been shrewd enough to buy the "Canada unleached hardwood ashes" that we have been foolish enough to sell. He is, however, quite willing to dispose of his product in this country. Mr. Stevens started business in 1870, shipping to the New England States. Soon the value of ashes became more generally known, and his business has spread till it takes in Nova Scotia and Quebec in the east, Wisconsin, Illinois, Indiana and Ohio in the west, Florida and South Carolina in the south, and New York, Pennsylvania, Maryland, Delaware, New Jersey, and all the New England States. His output for the first six months of 1906 was over 1,200 tons. We believe Mr. Stevens is entirely reliable, and trust the Canadian sales may soon absorb his whole output. Write him for prices. He handles a superior grade of goods, as shown by expert-station reports.

Luck lies in bed and wishes the postman would bring him news of a legacy. Labor turns out at six o'clock, and with busy pen or ringing hammer lays the foundation of a competence—Selected.

## Ring-Bone

There is no case so old or bad that we will not guarantee  
**Fleming's Spavin and Ringbone Paste**  
to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of  
**Fleming's Vest-Pocket Veterinary Adviser**  
Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durably bound, indexed and illustrated. Make a right beginning by sending for this book.  
**FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario**

## ANNANDALE FINE STOCK FARM TILLSONBURG, ONT.

Premier sire, Prince Posch Calamity, whose dam and sire's dam average in official test 86 lbs. milk in 1 day and 26 lbs. butter in 7 days.

No stock for sale at present.

**GEO. RICE, Tillsonburg, Ont.**

## HOLSTEINS FOR SALE



Four imported and one home-bred bulls, from 8 to 13 months old; also our entire crop of spring bull calves, from week old up, sired by

the grandly-bred imp. bull, Sir Howijs B. Pieterje, whose dam's record is over 52 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers from one year up; 75 head to select from. Cheese 13c. Don't delay if you want one from this herd.

**H. E. GEORGE, Crampton, Ont.**

## LOOK HERE



Have on hand bull calves from choice dams, and sired by son of greatest cow in Canada, Boutsje Q. Pieterje De Kol; 643 lbs. 7 days; 26 lbs. 1 day. His sire's dam and granddam have rec'ds averaging over 26 lbs. butter week. Also choice bulls fit for service. Prices right.  
**FRED ABBOTT, Fairview Stock Farm, Harrietsville, Ont.**

## MAPLE GLEN HOLSTEIN HERD

Quality Tops for Sale

In A. R. O. test a Sylvia female has just made 606 1/2 lbs. milk and 26.04 lbs. butter for 7 days. Who wants her son by Sir Alta Posch Bees? Four other of his sons for sale. A sister to his dam has just made over 32 lbs. butter in 7 days. Prices right.

**G. A. GILROY, Glen Buell, Ont. Brockville Stn., G. T. R. or C. P. R.**

## Fairview Herd Holsteins

Home of Pontiac Rag Apple, the cow that sold a few days ago for \$8,000. Highest price ever paid for an A. R. O. cow. I have her sire, Pontiac Korndyke, the greatest living sire of the breed, and also over 40 of his daughters, sisters to the one that brought the top price, and they are all good ones. Also bull calves by the best sires in the States. Write me, or come and look the herd over. Only seven miles from Prescott, Ont.  
**E. H. DOLLAR, Heuvelton, St. Lawrence County, N. Y.**

## RECORD OF MERIT HOLSTEINS



Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest bred bulls in Canada at head of the herd. For sale: 13 bulls, from 2 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

**P. D. EDE, Oxford Centre P.O. Woodstock Station.**

## "THE MAPLES" HOLSTEIN HERD

Is made up of Record of Merit cows and heifers with large records, and headed by Lord Wayne Mechthilde Calamity. Bull calves from one to five months old for sale.

**Walburn Rivers, Folden's, Ont.**

## "GLENARCHY" HOLSTEINS!

43 head of big, deep-flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Have only bull calves for sale now. A straight, smooth lot.

**G. MACINTYRE, Renfrew P. O. and Stn.**

### Dunrobin Stock Farm

### Clydesdales, YORKSHIRES, Shorthorns

We are booking orders for breeding stock from our grandly bred Yorkshire sows. Twenty-five sows to farrow in the next few weeks. Unrelated pairs a speciality. Write for prices and particulars.  
**DONALD GUNN & SON,**  
INSPECTION INVITED. **Beaverton, Ontario.**  
G. T. R., C. N. O. R. stations 1 1/2 miles from farm. Customers met on notification.

### MAPLE LEAF BERKSHIRES!

Large English breed. Now offering King of the Castle sows, and Polgate Doctor sows, bred to British Duke (imp.). Also young boars and sows for sale, 10 and 12 weeks old. **Joshua Lawrence, Oxford Centre P. O., Woodstock Station.**

### ORCHARD HOME TAMWORTHS

Herd headed by Newcastle Warrior. This hog won first prize and silver medal at Toronto, 1905, and defeated his sire, Colwill's Choice (1949), who has won these honors three years in succession. Our brood sows are large and of the same high quality. If you want choice stock, we can satisfy you at a reasonable price. Some choice young pigs. Also offering a pair of yearling boars at a very special price—good ones. Also a choice yearling Yorkshire boar. Express prepaid and satisfaction guaranteed.  
**GRANDALL BROS., Cherry Valley, Ont.**

### Newcastle Herd of Tamworths and Shorthorns.

We have for quick sale a choice lot of boars and sows from 2 to 6 months old, the produce of sows sired by Colwill's Choice and Newcastle Warrior, both our own breeding, and winners of sweepstakes and silver medal at Toronto, 1901-02-05. Several very choice sows due to farrow in March and April. Pedigree furnished with every pig. Several choice heifer calves and heifers in calf to our present stock bull. All of high show quality. Prices right. Daily mail at our door.  
**COLWILL BROS., Newcastle, Ont.**

### Mount Pleasant Tamworths and Holsteins.

For Sale: Pigs of either sex, from 6 weeks to 7 months; pairs not akin; also bull and heifer calves under 5 months. Phone in residence.  
**BERTRAM HOSKIN, The Gully P. O.**

### Yorkshires and Tamworths—Either bred any age, both sexes; sows bred and ready to breed.

Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not akin. As good as the breeds produce.  
**CHAS. CURRIE, Morriston P.O., Schaw Sta., C.P.R.**

### IMPROVED LARGE YORKSHIRES—Herd headed by the famous Summer Hill Gladiator 9th and Dalmey Topman 2nd (imp.), and some imported sows of good breeding and quality. Stock for sale at all times.

**GEO. M. SMITH, Hayville, Ont., New Hamburg, G.T.R., or Bright on Buffalo & Lake Huron R.R.**

### LARGE ENGLISH YORKSHIRES

Pigs of the most approved type of both sexes all ages, for sale at all times. We have more imported and bred than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.  
**D. G. FLATT & SON, Millgrove, Ont.**

### Meadowbrook Yorkshires

Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmey Topman. Everything guaranteed as represented.  
**J. H. SNELL, HAGERSVILLE P. O. & STATION**

### PINE GROVE BERKSHIRES!

Bred on aristocratic lines and from high-class show stuff, sired by the Toronto winner, Willow Lodge Leader. For sale are young animals of both sexes—4 and 6 months of age; of choice bacon type and showing form. **W. W. BROWN-RIDGE, Ashgrove P. O., Milton Sta.**

### LARGE ENGLISH BERKSHIRES

Choice young pigs from March and April litters. A few fall pigs and two young Shorthorn Bulls.  
**JOHN RACEY, Lennoxville, Quebec.**

### For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; peddle trees and safe delivery guaranteed. Address

**E. D. GEORGE, Putnam, Ont.**

### QUESTIONS AND ANSWERS. Miscellaneous.

#### HOGS TRESPASSING.

A and B are two farmers, neighbors, one living across the road from the other. B's hogs have been troubling A for some time, rooting up newly-seeded field of red clover terribly. A has asked B several times to take care of hogs, still he allows the hogs to cross the road and damage the crop.

1. What action will it be necessary for A to take to get pay for damage done?
  2. Must the hogs be driven to pound?
  3. Can they be loaded?
- Ontario. SUBSCRIBER.
- Ans.—1. He may proceed either under the Act respecting pounds (Revised Statutes of Ontario, 1897, chap. 172), or by suit in the Division Court.
2. Not necessarily.
  3. Yes.

#### SHORTHORN HERDBOOKS.

Having established a Shorthorn herd last fall, I now have several calves to register, so am desirous of a little information regarding such. I sent my membership fee to the secretary of the Dominion Shorthorn Breeders' Association about January, and asked for the latest volume of the herdbook, also application forms and transfer blanks. I have received nothing but receipt for membership fee. Please let me know what is the number of the latest volume, and if I am not entitled to it.

Ans.—As we understand it, a member of the Dominion Shorthorn Breeders' Association is entitled to the volume of the herdbook for the year or years in which his annual membership fee is paid, so the probability is that you will, in due time (or some time) receive Vol. 24, as volume 23, the latest published, was issued during the past winter, and is dated 1906. Volume 22 has not yet reached this office, and the explanation, in a letter from the Accountant, dated April 12th, 1907, is that this volume was placed in the hands of another printing house and had been delayed in the binding, but was expected to be ready for distribution by April 15th. Possibly members have received it before this date. If you asked for blank forms, you should have received them by return mail. As to the herdbook, it will probably suit you best to receive the volume in which your calves are recorded.

#### MISCELLANEOUS QUERIES.

- Please answer the following questions:
1. How to make a self-feeding box for condiments to be used by pigs?
  2. How to make charcoal, and which kind of wood makes the best for feeding purpose?
  3. Is hardwood ashes good to feed horses as a corrective? What effect would softwood ashes have?
  4. Is the insertion, "Peas Pay," a contribution from a personal standpoint, or is the editor the author of it? For the public benefit, I can endorse the words, as I believe the pea crop promises to be a good one.
  5. Can you give the address of the army pension office of the United States?
- NEW SUBSCRIBER.
- Ans.—1. The hopper feeders illustrated and described in "Poultry" department of our June 6th issue, page 950, might easily be modified to answer this purpose.
2. Any kind of wood may be used, but probably pine limbs are best. Sticks are piled up in conical shape, wide at bottom and narrow at top, and covered with sods and earth, a small opening being left vertically in center from bottom to top for a chimney, and another opening horizontally in the bottom, extending to central chimney. The object is to burn to blackness without consuming, and it requires judgment to manage it so that the fire does not blaze too strongly. Corn cobs, partially burned, and the fire extinguished by water, are said to make a useful charcoal for feeding to hogs.
  3. A small handful of sifted hardwood ashes fed to horses occasionally may have a good effect, especially where worms are suspected.
  4. This was an advertisement ordered by a canning factory.
  5. Chief Pension Bureau, Washington, D. C.

## MILBURN'S HEART and NERVE PILLS SAVED HER LIFE

Mrs. John C. Yensen, Little Rocher, N.B., writes: "I was troubled with a stab-like pain through my heart. I tried many remedies, but they seemed to do me more harm than good. I was then advised by a friend to try Milburn's Heart and Nerve Pills and after using two boxes I was completely cured. I cannot praise them enough for the world of good they did for me, for I believe they saved my life."

Price 50 cents per box or 3 boxes for \$1.25, at all dealers, or mailed direct by The T. Milburn Co., Limited, Toronto, Ont.

### FOR SALE: PURE-BRED Chester White Pigs

Ready to wean in two weeks. Price for single pig, either sex \$4; pairs, \$7. Also thoroughbred Shorthorn bull 10 months old, and one 3 years old. Two Ayrshire bulls, one 16 months and one 2 year; past. All registered and highly bred. I have also a number of high-class Holstein cows Ayrshires and Shorthorns all ages. Everything in the herd for sale.  
**D. ALLAN BLACK, Kingston, Ont.**

### Willowdale Berkshires

Young boars and sows, 5 and 6 months of age, out of imp. sows, and sired by Imp. Polgate Doctor, Royal Masterpiece, a son of the \$9,500 boar, Masterpiece, and some of them imp. in dam. Satisfaction guaranteed.  
**J. J. WILSON, Milton P.O. and Sta.**

### Glenhodson Yorkshires

Sows bred or ready to breed. Young pigs from three to six months old. Pairs not akin. Satisfaction guaranteed.  
**GLENHODSON COMPANY, Myrtle Station, Ont.**  
Long-distance phone at farm. Lorne Foster, Mgr.

### Maple Grove Yorkshires

are among the leading Canadian herds for size, quality and true-ness to type, and are prize-winners all around. For sale are both sexes. All ages. Bred from imp. and home-bred stock. There are none better.  
**H. S. McDIARMID, Fingal P. O., Shelden Station Breeder and Importer.**

### Fairview Berkshires

Are second to none. My herd has won high honors wherever shown. Am now offering sows bred and ready to breed and younger ones of both sexes, the get of Masterpiece and Just the Thing. An exceptionally choice lot.  
**JOHN S. COWAN, Donagall P. O., Milverton Sta.**

### SUNNYMOUNT BERKSHIRES.

Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale: A few choice boars from 5 mos. up to 15 mos. old.  
**JOHN McLEMP, Milton P.O. and Sta., C.P.R. & G.T.R.**

### Fairview Berkshires

Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars.  
**HENRY MASON, SCARBORO P. O.**  
Great news near the door

### ELMFIELD YORKSHIRES

Have 40 young pigs from 2 to 5 mos. Some young boars ready for service; also young sows bred and ready to breed. Pairs supplied not skin. Prices right.  
**G. B. MUMA, Ayr, Ont.**

### Duroc Jerseys.

Sows ready to breed. Young pigs, either sex, ready to ship. Canada Boy (imp.) 1907 heifer our herd. **MAC CAMPBELL & SON, Harwich, Ont.**

### Advertise in the Advocate

### I Will Import for Showing and Breeding SHROPSHIRE, GOSWOLDS, HAMPSHIRE, OXFORDS, SOUTH DOWNS.

or any other of the English breeds of Sheep, Cattle, or Horses, for those wishing to make an importation, large or small, this season. The best of care in selecting and delivering will be exercised, and the commission will be reasonable. Write me at once for what you want.  
**ROBERT MILLER, STOUFFVILLE, ONTARIO.**

### Brampton Jerseys

Unbroken record of several years success at all leading Canadian exhibitions is unequalled by any other herd of any kind or breed of live stock on the American continent. When buying a family cow, a steer or a dairy herd, buy only the best. Our public record proves that we have them.  
**B. H. BULL & SON, Brampton, Ont.**

### JERSEYS FOR SALE

One cow five years old—fresh; one bull calf five months old, of 1-land breeding. All choice stock—registered. Write or call on  
**B. LAWSON, Crumlin, Ont.**

### High Grove Jerseys—Choice young bull for sale, 12 months; fit for service; a prizewinner at Toronto last fall, "Bim of High Grove" 73688.

**ROBT. TUFTS & SON, Tweed, Ont.**

SHIP US YOUR **WOOL**  
Or write:  
**E. T. CARTER & CO., Toronto, Ont.**

Sheep and Cattle Labels. You will need them soon. See about them now. Write to-day for circular and sample.  
**F. G. JAMES, Bowmanville, Ont.**

### Fairview Shropshires

Orders now booked for shearlings and lambs of both sexes, fitted for showing or field condition. Don't forget that this flock has produced more winners than any other flock in all America, and stock sold at high prices.  
**J. & D. J. CAMPBELL, Fairview Farm, Woodville Ont.**

250,000,000 Sheep Every Year Dipped in  
**COOPER DIP**  
Has no equal. One dipping kills ticks, lice and nits. Increases quantity and quality of wool. Improves appearance and condition of flock. If dealer can't supply you, send \$1.75 for \$2.00 (100 gallons) packet to  
**National Drug and Chemical Co., Limited, Toronto and Montreal.**

**SOUTH DOWNS** AND **Sootch Collies.**  
**Robt. McEwen, Byron, Ont.**  
Long-distance Phone.

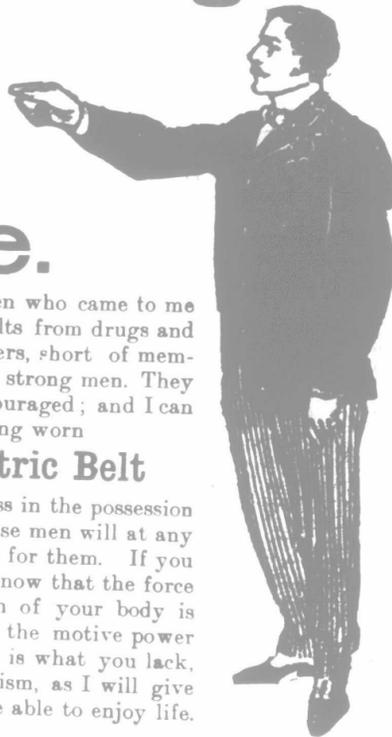
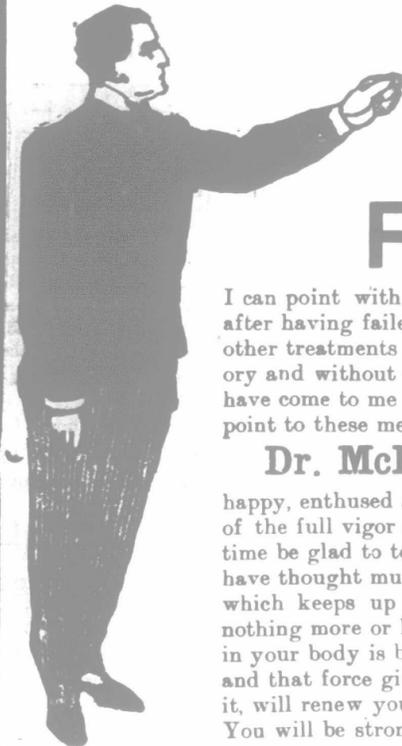
### Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world.  
**G. Howard Davidson, Pres., Millbrook, N. Y.**  
Address correspondence to **MORTIMER LEVY, BERING, Secretary, Lafayette Indiana.**

### SHROPSHIRE

Can sell about 20 Ram Lambs. Mostly by an Imp. Butter bred ram  
**GEO. HINDMARSH, Allea Craig, Ont.**

# I Restore Strength To Sick People.



I can point with pride to hundreds of men who came to me after having failed to get the craved results from drugs and other treatments; men broken down, sleepers, short of memory and without the courage and energy of strong men. They have come to me almost without hope, discouraged; and I can point to these men to-day, after their having worn

## Dr. McLaughlin's Electric Belt

happy, enthused and shouting with gladness in the possession of the full vigor of perfect manhood. These men will at any time be glad to tell you what I have done for them. If you have thought much of your trouble you know that the force which keeps up the health and strength of your body is nothing more or less than electricity. All the motive power in your body is born of electricity. That is what you lack, and that force given to your weak organism, as I will give it, will renew your strength. You will be able to enjoy life. You will be strong again.

Markdale, Ont.

Dr. McLaughlin:

Dear Sir,—I wore your Belt steady for two months, for I had a lame back and pain in the muscles of the arm. After about a month, all pain ceased, and I have not been troubled since. I can say I had no lame back since I put the Belt on. A good many parties have written to me about the Belt, and I answered them the same as I do you.  
JOSEPH LITTLEJOHN.

If you haven't confidence in electricity, let me treat you at my risk. I will give you the Belt on trial, without one cent of risk to yourself. Give me reasonable security, and I will take your case, and you can

### PAY WHEN CURED

If you have pains in your back, if you feel tired and listless, if you are nervous and weak, if you are growing old too soon, if you have lost vigor and courage of youth, if you have rheumatism, a weak stomach or any evidence of breaking down, you are wasting time. Get Dr. McLaughlin's Belt with Free Electric Attachment.

MY BELT not only cures weakness, but Rheumatism, Sciatica, Lumbago, Backache, Kidney Trouble, Nervousness, Constipation, Indigestion and Stomach Trouble. I have a beautiful 84 page illustrated book, which I will mail, sealed, to any address, FREE. This book is full of lots of good, interesting reading for men. Call to-day. If you can't call, send coupon for Free Book.

Dr. McLaughlin:

Dear Sir,—I am going to let you know how things are with me now. I do not know when I felt so well as I do now. I have not had an ache or a pain since I began to use your Belt. I sleep well, and when I awake in the morning, I am ready to spring out of bed. I feel so happy and well that I can hardly believe that I am the same person. Thanking you very much for your kindness and your Belt, I remain,  
C. H. MELVIN.

Aylesford, N.S.

Dr. M. S. McLaughlin, 112 Yonge St., Toronto, Canada.  
Gentlemen.—Please send me, prepaid, your Free Book.

NAME .....

ADDRESS .....

Office Hours: 9 a.m. to 6 p.m. Wednesday and Saturday

## QUESTIONS AND ANSWERS. Miscellaneous.

### AGE OF BEARING.

How long before a Snow-apple tree should bear fruit? I have had one in for ten years, and it is now a tree about 20 feet high and 5 inches in diameter, healthy and well pruned, but has not yet borne fruit, although this year it has two blossoms, the first it has had.  
A. W.

Ans.—The age at which apple trees come into bearing varies considerably with the different varieties, and even with the same variety upon different soils. On some soils, I have seen Snow (Fameuse) apples beginning to bear in five or six years. On others, which encourage more vigorous growth of wood, the trees may be even twice that time in coming into bearing. From the fact that yours has begun to bloom, that is evidence that from this on the tree will likely bear more heavily year by year.  
H. L. HUTT.

### GASOLINE ENGINE HORSE-POWER.

What is the formula generally used in determining the horse-power of a gasoline engine?

Ans.—To arrive at the horse-power of a gasoline engine, the following rule is used: Make D equal the diameter of the face of the pulley; B, the length of lever, in feet, from center of shaft to point of scale suspension; A, the radius of pulley; R, the number of revolutions of the shaft per minute. The weight used in formula must be the net weight of power stress, or the gross observed weight, less the weight of the lever.

B

$$D \times 3.1416 \times R \times A \times \text{Weight} = \text{H.P.}$$

33,000

### GOULD, SHAPLEY & MUIR CO. CULTIVATING AND MANURING AN ORCHARD.

What is the correct way to keep an orchard in good shape? Should it be plowed between the trees or not, and how should it be manured?

SUBSCRIBER.

Ans.—There are two good and many bad ways of caring for orchards. The two good ways are (1) sod culture, (2) cultivation with cover crop. Sod culture consists in leaving the land perpetually in grass and cutting this grass once or twice a year, and spreading around the trees as a mulch. On no account be tempted to remove the grass. Leave it there to prevent evaporation, and, by its decay, to finally enrich the soil. In addition, apply more or less barnyard manure and wood ashes. The second method is the one favored by far the largest number of growers. It consists in plowing shallowly early in spring, and then working frequently, once every week or ten days, with disk or drag harrow, or any kind of implement that will keep the surface loose. Then, in July, sow a cover crop of cover, hairy vetch, buckwheat, rape, rye or oats. This will serve three purposes. It will use part of the moisture and plant food that would otherwise be taken up by the trees. Thus it will tend to check the growth of new wood, giving it time to mature before winter. Otherwise the late sappy growth of new wood would probably winter-kill. The cover crops will also serve to protect the tree roots to some extent by holding snow and reducing the depth to which the frost penetrates. Finally, when plowed under early the following spring, as it should be, it will enrich the soil by increasing its humus content, and returning to it plant food that would otherwise have been leached away during winter. If the cover crop is a legume, such as vetch or vetches, it will also add a good deal of nitrogen taken from the air. By repeating this system of cultivation and cover crops year after year, using an occasional dressing of wood ashes, and, if available, a little barnyard manure, the orchard may be kept in thrifty condition and bearing highly-pronitable crops of fruit. If the growth of wood becomes excessive, this tendency may be corrected by sowing down for a few years to grass.

## Large White Yorkshires

Am offering at the present time a number of choice boars and sows of breeding age, also some imported sows in pig. Also young pigs of spring farrow direct from imported stock. Pairs and trios supplied not akin. Write for what you want.

H. J. Davis, Woodstock, Ont.  
Breeder of Shorthorns & Yorkshires

## MONKLAND Yorkshires

Imported & Canadian-bred  
We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS, FERGUS, ONT.  
G. T. R. and C. P. R. Long-distance Phone.

## Glenburn Herd of Yorkshires.

Winner of gold medal three years in succession. Young boars and sows of different ages. Also a grand good Shorthorn bull (roan) 7 months old, fit to head any herd.

David Barr, Jr., Box 3, Renfrew, Ont.  
CHESTER WHITE SWINE and SHROPSHIRE SHEEP. Right in quality; right in price. Come and see, or apply by letter to W. E. WRIGHT, Glenworth, Ont.

## YORKSHIRES of Choicest Type and Breeding.



I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin.  
J. W. BOYLE, P. O. Box 563, Woodstock, Ont.



## Woodstock Herd of Large English Berkshires

For sale: Boars fit for service. Sows ready to breed. March and April pigs supplied in pairs and trios not akin; bred from my imported and home-bred sows. My pigs are all bred on prizewinning lines, and true to type. Come and see, or write for prices.  
DOUGLAS THOMSON, Box 1, Woodstock, Ontario. C. P. R. and G. T. R. stations.



## Rosebank Berkshires.

Present offering: Boars fit for service. Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Sallie's Sambo (Imp.), a Toronto winner.  
Lefroy, G.T.R. JOHN BOYES, JR., Churchill, Ont. Long-distance Phone



OAKDALE BERKSHIRES Largest Berkshire herd in Ontario. Imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prizewinning lines and true to type. Everything guaranteed as represented. Long distance phone.  
L. E. MORGAN, Milligan P.O., Co. of York.

## Elmhurst Berkshires

Motto: "Goods as Represented"

With our recent importation, personally selected from the best herds in England (some of them prizewinners), we have the most select herd of Berkshires in Canada. A grand group of breeding and show matrons. Our new imported boar, Stall Pitts Middy won 1st under 1 year at Oxford, 1907, also Compton Duke, Imp. and Compton Swell, Imp., head the herd. Mail orders receive careful attention. Brantford shipping station.  
H. M. VANDERLIP, Cainsville P. O., Brant Co., Ont.

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