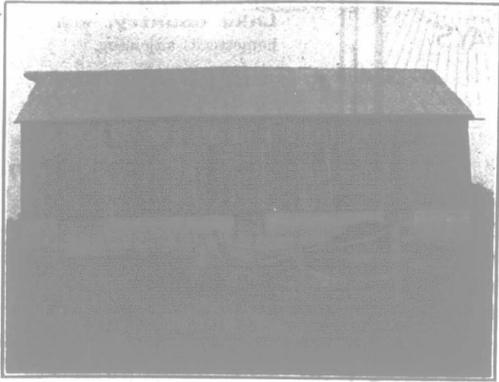


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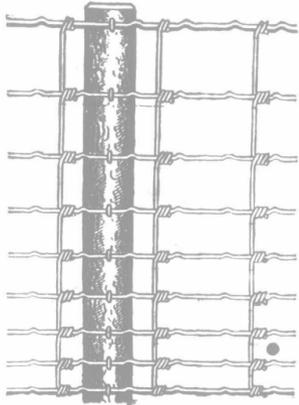
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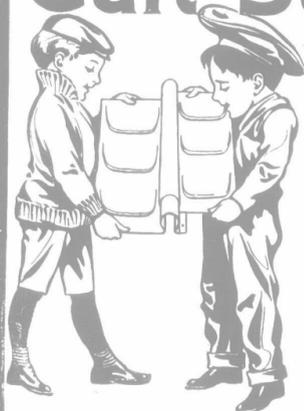
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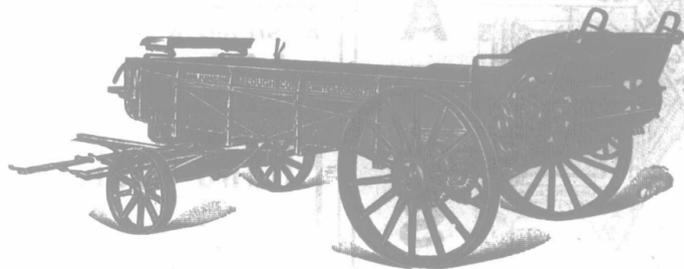
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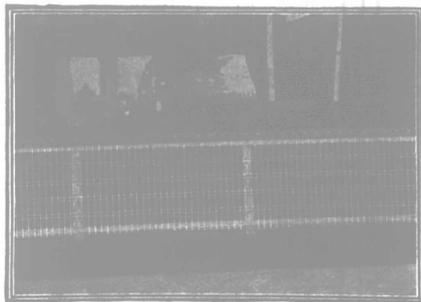
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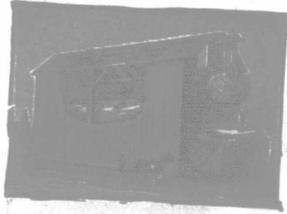
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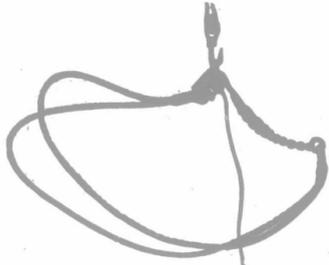
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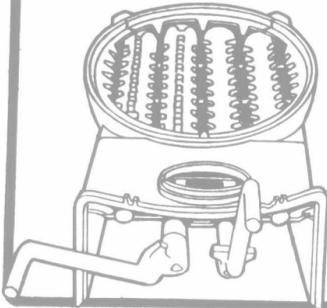


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a perfect wagon box, that is always on the wagon, that may be quickly and easily adjusted into a perfect hay, stock, wood, corn or fruit rack without the use of wrench, bolt, key, hook, rod, chain or rope.

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HOMESTEAD REGULATIONS.

ANY even numbered section of Dominion Lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres, more or less.

Entry may be made personally at the local land office for the district in which the land is situated.

The homesteader is required to perform the conditions connected therewith under one of the following plans:

(1) At least six months' residence upon and cultivation of the land in each year for three years.

(2) If the father (or mother, if the father is deceased) of the homesteader resides upon a farm in the vicinity of the land entered for the requirements as to residence may be satisfied by such person residing with the father or mother.

(3) If the settler has his permanent residence upon farming land owned by him in the vicinity of his homestead, the requirements as to residence may be satisfied by residence upon the said land.

Six months' notice in writing should be given to the Commissioner of Dominion Lands at Ottawa of intention to apply for patent.

W. W. CORY,

Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

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ALSO 480 ACRES PARTIALLY IMPROVED, with buildings and cultivation, 3 1/2 miles from Pasqua. This is A1.

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VOL. XLII.

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LONDON, ONT., MAY 31, 1906.

No. 714

EDITORIAL.

Denatured Alcohol.

The American Senate has been considering a long-deferred bill, finally passed by the House of Representatives, to remove the internal-revenue tax from denatured alcohol, i. e., alcohol which has been rendered undrinkable by the addition of some liquid, such as the pungent and poisonous wood alcohol. Great expectations are based upon the probable effect of tax-free alcohol in cheapening fuel, light and power. One gallon of alcohol will give as much light as two gallons of kerosene in an ordinary lamp, and, the cost being about the same per gallon, its use would cut in two the expense of lighting a farmhouse. Besides this, it can be used instead of gasoline in small motors, such as are employed to run light machinery on the farms and in shops. There are over 5,000 of these alcohol engines now used in Germany. Alcohol is much less explosive than gasoline; its vapor does not take fire so readily, and the burning alcohol can be put out with water, while a gasoline fire cannot. Besides being useful for lighting, heating and power, cheap alcohol would be of great advantage to many manufactures, such as hats, varnishes, smokeless powder, photographic material, celluloid, transparent soap, and the like. Probable sources of cheap alcohol include spoiled corn and beet-sugar molasses, cheap molasses from the West Indies, and lately it has been suggested that unsalable honey, partially fermented, could be turned to good account by conversion into denatured alcohol. Moderate estimates place the probable selling price of untaxed alcohol at from 15 to 25 cents a gallon. Hitherto its cost to the consumer has been increased by an excise tax amounting to about a thousand per cent., ad valorem. The tax was first imposed in the United States in 1862, to raise money to carry on the Civil War, but has since been repeatedly increased, so that while a gallon of alcohol can be made for from 20 to 25 cents, the manufacturer has to pay the Government \$2.08 if he sells or uses it. The only exception to this is that alcohol used to fortify light wines, making them more intoxicant, is not taxed. Last year the tax was remitted on 3,500,000 gallons of alcohol used for this purpose.

That alcohol for drinking should be highly taxed, is quite right, but no such arguments apply to the denatured article, to tax which is just as absurd as it would be to tax gasoline or coal.

The subject was very thoroughly investigated by the joint committee of the Senate and House of Representatives in 1896, while a mass of reliable information is contained in the British Parliamentary Report of 1901, and in the evidence recently taken by the Ways and Means Committee of the House at Washington. The bill, however, has met stubborn opposition in the person of Senator Nelson W. Aldrich, chairman of the Senate's Finance Committee, which now has the bill in charge. Senator Aldrich is father-in-law of John Rockefeller, Jr., and is himself interested in Standard Oil. Though there is no limit to this session of Congress, except what it chooses to set, he says it is too late for any action "based upon wise principles," and, on account of "faulty" work done in the House of Representatives, he finds it necessary to have extensive hearings on the bill. Of course, the main "principle" which worries the venerable statesman is the effect of cheap alcohol on the prices charged by the Standard Oil Company for coal oil and gasoline. One other "interest," probably of much less concern to him, is the industry of manufacturing methyl alcohol, or wood alcohol, of which 7,500,000 gallons a year are now produced. As most of our

readers are aware, there are thousands of alcohols possible and hundreds known to the chemist, who gives them such names as methyl (wood alcohol), ethyl, propyl, butyl, etc. Most people are acquainted with but two: ethyl alcohol, made from fruit, grain, etc., which forms the intoxicating element of wine and whiskey, and methyl alcohol, made by the destructive distillation of wood. The latter is entirely unpotable, and therefore is not taxed. It is used for many purposes in the arts, and its production has become a great industry, owing to the prohibitive tax on its rival. On behalf of this industry, it is suggested that, for some years at least, the English standard of 10 per cent. wood alcohol be required as a denaturant, instead of the 2½ per cent. used in Germany. It is not expected that much danger will result from the general use of denatured alcohol. A few persons may try to drink it, but, as one magazine points out, they will be those dipsomaniacs who now kill themselves by drinking red ink, perfumery and liniment.

Removal of the tax on denatured alcohol has been trifled with for years, but the demand is now stronger than ever, and the bill will not be so easily shelved as formerly. Meanwhile, American farmers are being urged to write their Senators, demanding to know which side of the fence they are on, the farmers' or the Standard Oil's. It is a little way they have on the "other side" of getting their individual representatives on record, and whipping their courage up, if need be, to the point of action.

Opportunity or Man?

That there is room for improvement in farming in this country is shown by the wide difference between the best and the poorest results, or, if you will, between the best and the ordinary. Contrary to the popular assumption, this difference is not due, in the majority of cases, at any rate, to unequal chances. It is mainly a question of the man. There are opportunities going to waste on almost every farm. Just in proportion as a man realizes the fact, and sets himself to discover his own, and make the most of them, will he rise above the dreary level of average accomplishment. We need more of the spirit of a certain business man who, boring for water to supply his house, was unfortunate enough, as it was then thought, to strike a sulphurous vein which rendered the use of the water for household purposes out of the question. Instead, he built a mineral-water plant over the well, and has been coining money out of it ever since.

Can such results be duplicated in agriculture? In the County of Ontario is a farm on which there are thirty-five or forty acres of steep clay hills along a stream on the east side of the farm. For years they were worked as many other acres of such land is worked—at a measly profit, if, indeed, there were any profit at all. An enterprising man secured the farm, and seeded the hills to permanent pasture. The spring-fed stream furnished an ideal watering-place for stock, and to-day that portion of the farm is as profitable as any. Similar land across the line fence has long since had its surface soil washed towards the lake, but still the tenant wrestles with the blue-clay knolls. Is it a difference of opportunities or a difference of men? Down in New Brunswick is a large area of land that is light, and has long been half-tilled by men whose energy was spent in the lumber woods. One man in particular, finding it necessary to depend more largely upon the farm for a living, subscribed for a couple of farm papers, and began to study improved methods of dairying. With a very ordinary farm, and handicapped by sickness in the family and by a heavy debt, he built his faith

upon the dairy cow. In a comparatively few years he doubled his herd, gathered implements about him, built a silo, paid for his place, and has a snug bank account besides.

Was it opportunity or man?

A Course in Roadmaking at Guelph.

Last week a correspondent complained of the lack of competent highway engineers in Ontario, and suggested the establishment of a course in roadmaking at the School of Practical Science, Toronto, where the best ideas in Europe, as well as America, could be taught systematically, with a view to turning out experts whose knowledge could be diffused and utilized by the community. We believe the idea is good, but as the matter of roads is mainly a farmers' problem, why not have the subject taught at the Agricultural College at Guelph? For a long time to come our principal road mileage must consist of ordinary earth roads (possibly surfaced in some cases with gravel), and their care will in all probability continue to devolve upon farmers. At any rate, the first step to improvement must come from an intelligent, accurately-informed rural opinion, and to this end it is necessary to educate the rising generation to know approximately what can be done, how it should be done, what the work should cost, and how it should be gone about. Otherwise, we run a grave chance to falling victims to incompetence, even though supposed experts were employed. For this reason, there should be at the farmers' college an efficient course of lectures, with demonstrations and object lessons, if possible, for the benefit of the regular students, and a few lectures might very well be given, also, to the short-course men in January. Forestry is being taught at Guelph, and we are pleased to note that a course of lectures in electricity has been put on. Quite as necessary is a practical training in roadmaking. Whether the O. A. C. should undertake to go into the subject exhaustively, with a view to turning out highway engineers, we will not attempt to decide. Possibly the professional end of it may as well be left to the School of Practical Science, though it seems as though there would be a better chance of having a first-class, up-to-date instructor for the agricultural students if the headquarters of the Provincial Good-roads Chair were established at the Agricultural College, and the likeliest material for experts in the science and practice of roadmaking are certainly to be found among the student-body of the Ontario Agricultural College. The only objection, in our opinion, is that the purely agricultural feature of this institution is liable to be weakened by a multiplication of professional opportunities afforded thereat. The importance of the roads question can hardly be overestimated. Good roads make the farmer's life pleasanter, and his business more profitable. It is all right to endeavor to raise farm products cheaply, but the advantage of cheap production on the farm is shorn of its blessing for the man who can haul only half a load to market, wearing out his vehicle, horses, and temper in so doing, and oftentimes missing a chance to realize good prices on account of impassable roads. Improvements in production and transportation should go hand in hand. Hitherto, rural transportation has been shamefully neglected. The good-roads crusade requires leadership, experiment, systematic instruction and persistent effort. This necessitates its localization at some point, like Guelph, which may then become a fount of inspiration and information, as it already has done in so many phases of advanced agricultural practice.

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,
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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. (52 issues per year.) 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.
2. TERMS OF SUBSCRIPTION.—In Canada, United States, England, Ireland and Scotland, \$1.50 per year, in advance; \$2.00 when not paid in advance. All other countries, 12s.
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Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

HORSES.

The Suffolk Horse.

There is probably no other breed of draft horses that can justly claim so much purity of breeding and uniformity of type and color as the Suffolk. Little attempt appears to have been made to complete a history of the breed previous to the founding of the Suffolk Horse Studbook in or about the year 1879.

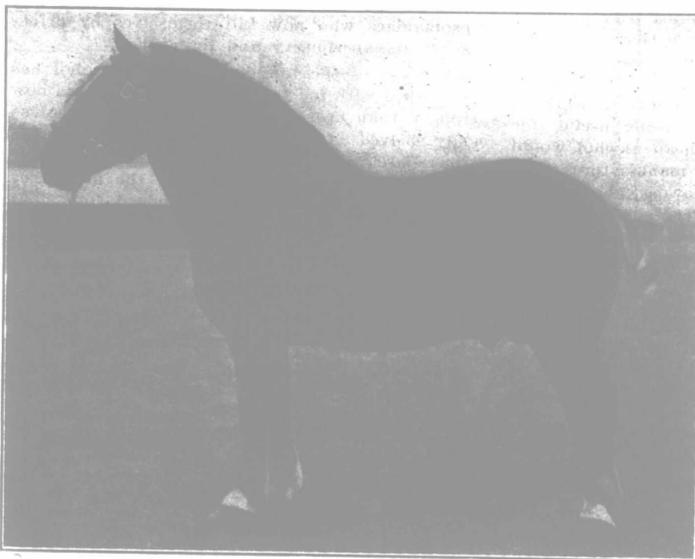
That ample material for such a history existed, the Studbook Committee proved, as in the first volume is recorded, in consecutive form, an account of the breed for about 170 years, with verified quotations, carrying the history as far back as the early part of the eighteenth century. Limited in the district of its origin, and local in its early development, there was little difficulty in getting at the historical facts which were in existence. In compiling the first volume of the Studbook, the Committee was greatly aided by the proprietor of the Epswich Journal, who had an uninterrupted file of his paper from the year 1720, which he placed at the disposal of the editor of the Studbook. Frequent mention of the Suffolk horse appeared in this organ. In the compilation of the history, recourse was had to advertising cards, sale announcements, records of auctions, catalogues of the Suffolk Agricultural Association, the Royal Agricultural Society of England, and the verbal accounts and descriptions from the oldest groomers and horsemen in the country. So far as the origin of the breed is concerned, little can be said. The Suffolk horse appears to have been present in Suffolk at a very early date. Care and selection in breeding have modified his character, but as regards his marked characteristics, few if any breeds have so tenaciously reproduced their chief features of identification. There is reliable evidence of the fact that many of the most decided points which distinguished them more than two hundred years ago are rarely absent in the Suffolk horse of today. The short legs, roomy middle, chestnut color, longevity, docility, and willingness to draw, are still strikingly characteristic of the breed. As far back as the middle of the eighteenth century allusion is made to the existence of the breed, advertisements of which are given in the first three generations and are still to be seen in the first date

was "the truest-bred cart-horse in Suffolk," being frequently met with. Modern writers claim that there was an element of Flemish blood in the forefathers of the present race of Suffolk horses. Beyond the fact that a breeder had a couple of Flemish horses, no record of any such introduction seems to be known, and the only authority for even this fact is that there are portraits of two such animals in the family collection. If these horses were used on the estate, it could have had simply a local effect.

No observer can fail to notice the uniformity of type and character of the Suffolk horse. There is something in the color, type, style and outline, varied, of course, but never obliterated, which speaks of a common origin. Whatever fault we may find with the breed, we cannot fail to observe the marked type of outward appearance and color that is always present in a marked degree. That there have been infusions of extraneous blood cannot be denied, neither can it be denied that these influences have failed to overcome the prepotency of the breed or alter either type or color. The produce of these crosses stood for some years, but sooner or later they died out, and, at the present time there is not a Suffolk horse which is not descended from the old breed.

It is claimed that there is not a single specimen of the breed in existence which is not descended from one single source of ancestry—a certain horse of the "old breed," a nameless sire, foaled in 1768, and advertised as the property of one Mr. Crisp, of Ufford. This is not a mere assertion, or the result of a fair conclusion from reliable data; it is a proved fact, which the pedigree chart of the Studbook proved beyond doubt.

The introduction of the Studbook speaks of the old Ufford horse: "The first notice we got of a



A Typical Suffolk Stallion. First at the Royal and Other Shows.

horse of the old breed, of whose undisturbed identity there is a printed record, belonged to a Mr. Crisp, of Ufford. The advertisement appeared in 1773. The following year he is described as a fine, bright chestnut, full 15½ hands high, with the additional notice that his owner has no occasion to say anything more in his praise, as he is so noted a horse for getting fine colts; and, moreover, those who were unsuccessful with the said horse last year, can have the use of him this year for 5 shillings." His route appears to have been in the district of Woodbridge, with excursions to Saxmundham and Framlingham, "so to continue the season, God willing."

The Studbook gives details of various introductions of outside blood, probably the most important being that of a Lincolnshire trotting horse, belonging to a Mr. Blake, and known as Blake's Farmer, and another Lincolnshire horse known as Might's Farmer's Glory, or the Attleboro horse. The influence of these and other outside crosses were more or less marked for a few generations, but it became extinct from no assignable cause. It was the same old tale, the fresh introduction striving in vain against the power of the parent stock, proving that the power of assertion, the tenacity of retention of its characteristics is in proportion to the antiquity and the purity of the origin.

CHARACTERISTICS OF THE SUFFOLK HORSE.

Head.—The head is rather small; ears small and pointed; forehead broad and flat; eye full, prominent and mild; nostrils large; muzzle fine, lips firm and compact; branches of lower jaw wide apart at their angles.

Neck.—Rather short, neatly attached to head, and carried well up; crest well developed and well arched, but not sufficiently heavy to turn to

either side; the whole neck heavily muscled, especially where it joins the body.

Withers and back.—Withers in line with the posterior part of the upper border of the neck, of medium height, and not falling too abruptly into the back; back short and strong; loins broad and heavily muscled.

Croup.—Not too drooping, of medium length, heavily muscled, with dock coming out rather high up, well clothed with straight and moderately fine hair, and well carried.

Chest.—Ribs long, deep and well sprung; false ribs long; body deep and close to the ground; deep through girth; breast wide and prominently muscled.

Shoulder.—Moderately oblique, and heavily muscled.

Forearm.—Not so long as in other draft breeds, muscles large, and extending well down the limb.

Knee.—Straight, large and strong in all directions.

Knee to Foot.—Cannon bone short, broad, flat and clean; ligament and tendons prominent, and not too much tied in below the knee, an absence of beefiness and long hair on the posterior border, a small tuft of long hair at back of fetlock pad not objectionable; fetlock joint large and strong; pasterns rather short, and of medium obliquity.

Foot.—Rather large, round, with strong wall, sole slightly concave; frog well developed; heels broad, strong, and not too deep; feet must be of equal size, and toes must not turn either inwards or outwards when standing. An absence of hardening or thickening of the lateral cartilages.

Haunch or Upper Thigh.—Strong and well muscled, thick through ham, hind quarters broad and strong.

Stifle.—Large, strong and compact.

Gaskin or Lower Thigh.—Shorter than in other draft breeds; muscles prominent, and extremely well down the limb; hamstring prominent and strong.

Hock.—Large and strong in all directions, clean, an absence of puffiness, point prominent, and posterior border straight.

Hock to Foot.—The same general characteristics as the fore leg from knee to foot.

Foot.—Not so round, and sole more concave than fore foot, wall strong, frog well developed, heels broad and strong. Feet to be of equal size.

In general conformation, he must be very blocky, a large, deep body upon short legs, which, on account of the absence of feathering, may appear to be deficient in bone, but if the bone be of good quality, there usually is sufficient.

Color.—The different shades of chestnut, a bright chestnut (often called a sorrel) preferable; a white coronet or two, or a few white hairs on forehead, not very objectionable, but a solid color is usually preferred.

Temperament.—Docile, energetic, not nervous. Style and Action.—General appearance attractive, good walker, must not roll or paddle with fore feet, nor go wide behind, but must not go close enough to interfere; should lift all feet fairly well from the ground, showing the soles plainly. When trotting, must have free and easy action.

Weight.—Say, 1,600 to 2,000 pounds.

Height.—Say, 15½ to 16½ hands.

The characteristics of the Suffolk mare or gelding are the same as those of the stallion, except that there is not such development of crest, nor the general masculine appearance particularly expressed in the head and neck; the withers are more clearly defined, and not so broad; the weight is usually not so great nor the action so heavy, and there is less impetuosity noticed.

"WHIP."

Use Brains with Feed.

There is a great difference in the amount of grain required by different men to keep a given horse in condition. Some teamsters seem to think that if they are shovelling into each manger half a bushel or three pecks of oats a day, and a little hay, they are feeding well, and cannot understand why the beast does not keep fat. Others feed scarcely any grain, and not a few farm horses get little of anything but grass all summer, yet always keep in good flesh. The usual comment is that such a horse must be an easy keeper. Often the credit belongs to the man, rather than the horse. We believe in feeding horses well, for

upon the efficiency of the team depends the economy of the farmer's and his hired man's time, but experience shows that the quantity of oats per meal is by no means the only important factor in keeping horseflesh in good shape. Judgment in working and increasing or diminishing the allowance of heavy feed, regularity in time of feeding, and working, also, as far as may be practicable, frequency of watering, and care in fitting harness and matching teams—in a word, that rare quality called "horse sense"—are the secrets of maintaining the teams in presentable shape and strong working condition. It is not so much what you feed as how you feed it; not so much what you do as how you do it. Horse sense without oats is better than oats without sense.

Economy of Horse Power.

A writer in an English exchange probably touches one of the main handicaps of Old Country agriculture when he refers to the waste of horse-power, indifference of teamsters and other laborers to the value of time, and failure to alter methods readily to meet changes in the times, as exemplified by the adherence to labor-expensive implements. "How is it," he says, "that we tacitly agree that an acre per day is too sanguine an estimate even for ordinary two-horse land, and remain content with from half to three-quarters of an acre? Nine-inch furrows are narrow enough, and loose land can be plowed with 10 to even 12-inch furrows. There is, therefore, no difficulty in plowing 1½ to 1-1-3 acres of loose land in a day, and yet it is generally thought that one acre a day is an overestimate of what may, on an average, be expected from plowmen. Single-furrow plows are gradually giving way to double and triple-furrow implements, drawn by two or three, and possibly, in the case of triple plows, by four horses. This is a great economy, as the double-furrow plow drawn by three horses (and many farmers use two) may be relied upon to turn over from 1½ to 2 acres per diem without any difficulty. On light land, or land already plowed, there is no difficulty in two horses drawing a double-furrow plow, and the saving in horse labor is then very considerable. The same principle holds good in all other tillage operations, so that, by using double-furrow plows, two-horse drills, light one-horse seed harrows, spring-tooth cultivators, etc., the number of horses may be reduced, or tillages can be more effectively performed."

Two-horse drills and one-horse harrows just coming in! No wonder British agriculture is depressed! The remedy is more energetic application of the principle the writer suggests. The same holds true, only in less degree, in Canada. The moral of the age is surely plain.

How and When to Water.

A good deal of discussion has taken place and considerable diversity of opinion still exists regarding the best order in which to feed and water horses. Many have advocated watering before feeding, to avoid washing the grain ration out of the stomach, an organ which, as we all know, is relatively small in the horse. A difficulty is generally met, however, in the fact that many horses cannot be induced to drink much in the morning until they have eaten for a while. The writer has found that the best way is to let the horse eat enough to make him thirsty, and then water and give the grain allowance. This is in accordance with the animal's appetite, and approaches what we might expect his habits to be under natural conditions. People are yearly less inclined to attempt to make nature conform to men's theories, and more inclined to adapt their practice to nature's demands, as indicated by the preferences of the animals in their care. Of course, if we were to press this point too far, we might be at a loss to justify certain methods commonly considered essential. Theorizing is interesting, but not always assuring. However, in this matter of watering, we feel pretty certain of the soundness of our doctrine, having tested it as well as we could in the school of experience, and our advice is to feed hay first thing in the morning; then, just before breakfast, water, and feed grain. When taking the team out, water again after breakfast; once, if possible in the middle of the forenoon—on hot days particularly; then again at noon, before going in to dinner; and after dinner, when going out to work. Divide the afternoon, like the forenoon, if practicable, and water again on coming in at night. In the evening, after a good cleaning, give them another drink, and leave them with enough hay to eat during the night. It doesn't take long to hold a pail up to a horse, and if he doesn't drink promptly, it may be taken for granted that he is not thirsty. When watering thus frequently, there is no harm done if he misses once in a while.

One point more, do not stand a sweltering, throat-parched horse in a stuffy stable, and expect him to eat hay all the noon hour, with nothing to drink. Think how you feel yourself. When you come in hot and tired from the field, do you sit down and eat a dry dinner, and then take a

drink just as you are going to the field? Not if you are wise. You may take care not to swallow down all the ice-water you would like, but you take a cupful from the well, at least. So with the horse. There is a deal of exaggerated fear about watering horses when warm. In the first place they should not be brought in from the field lathering wet, but if they are, water is the very thing they need. A large amount of perspiration has been secreted while working. This leaves the system parched. A fair amount of water of moderate temperature is the best thing that can be given, and it should, ordinarily, be given at once. If the water is very cold, take the chill off it by having a drawn pailful or two standing ready when you come in. Horses prefer water not too cold, and if precautions are taken about the temperature, a pailful will not hurt a horse in the least, but rather refresh and do him good. As Dr. Reed, of Guelph, has very well put it, "When a horse is thirsty, he wants a drink."

The Winner of the King's Plate.

The annual racing events, under the auspices of the Ontario Jockey Club, which opened at the Woodbine track, Toronto, on Saturday, May 19th, drew a larger crowd of spectators than usual. The principal contest of the day was, as usual, that for the King's Plate, with \$4,000 added, for which, on this occasion, there were originally thirty-seven entries, which, from one cause or another, had dwindled to nine on the programme, and three of these were withdrawn, leaving six to start, the same number as last year, and less than in any other year for the last quarter of a century. Of the six, two wore the colors of



Slaughter.

Winner of the King's Plate, at the Woodbine, Toronto, May 19th, 1906. Bred and owned by Joseph E. Seagram, M. P., Waterloo, Ont.

Jos. E. Seagram, M. P., of Waterloo, Ont., and four of the six were productions of the Waterloo Stud, which has won more victories than any other in the history of the Club. The favorite with the crowd was Mr. N. Dymont's Court Martial, who, in appearance and in his preparatory work, gave promise of being the probable winner, but, as has not infrequently occurred, so on this occasion, a comparatively dark horse proved the winner of the coveted trophy, as Mr. Seagram's three-year-old colt, Slaughter, by Havoc, after a spirited and hotly-contested race, won out by five lengths ahead of Court Martial, who was second, four lengths ahead of Mr. Seagram's Haruko, who was third.

LIVE STOCK.

Stock Bloating on Clover.

There is always more or less danger of loss of cattle and sheep from bloating when turned upon clover in spring. Care should be observed not to turn the stock into clover when it is wet with dew or rain, or when very hungry; better put them in at midday, or soon after noon, until they get well used to the new pasture. Prevention is much better than cure in this, as in other cases, but when bloating occurs in cattle a simple remedy is 2 ozs. turpentine and 1½ ozs. raw linseed oil, given slowly and carefully as a drench. For a sheep half the quantity may be given, and if the oil is not on hand the turpentine may be given in water. Sometimes relief is gained by simply placing a round stick in the mouth, fastened there by means of a rope attached to each end, and tied over the head, back of the ears. This device may also be used for a bloated sheep. In cattle, if the case is a very severe one, the breathing difficult, the animal moaning and

slaving, and there is danger of death from suffocation, tapping with a trocar and canula should be attended to without delay. The trocar is a sharp-pointed instrument, while the canula is its sheath; the place to tap is in the middle of the depression between the last rib, the backbone and the hook bone on the left side; the puncture is made about equidistant from each of these points, the trocar being withdrawn and the canula or sheath left in the opening while the gas is escaping. If this instrument is not on hand, or promptly available, the next best thing in a serious case is to take a common goose quill, cut off the point and the feathered portion, and take out the pith; then with a sharp-pointed penknife make an incision deep enough to go through the skin and lining of the stomach, insert the quill and hold it firmly while the gas escapes. A little carbolized oil should be applied to the wound to prevent flyblow, and to heal the sore.

Expert Judges.

When the powers that be proposed that expert judges should be provided for our annual agricultural fairs, not a few exhibitors and patrons of such exhibitions thought that a decided step in advance was about to be taken. They believed that such judges would ensure, not only justice to each exhibitor, but that the spectators and all who cared to listen would be enlightened by a brief running comment that would make clear to all why the various awards were given, or why, in some instances, the prize was withheld. In this way, it was hoped, the agricultural fair would become, in practice, what it was intended it should become—an educator in agricultural pursuits.

Some societies have been disappointed in this, and are, regretfully, abandoning expert judges. Some of the causes for their doing so are these:

1. The experts promised, in some instances, have not been forwarded, and the fair directors have, at the last moment, been obliged to take someone whom they did not choose, and whom they did not care to have. Satisfactory reasons for the changing of judges have not always been given.

2. Other so-called experts have proven to be men whose rulings were not consistent one with the other, and who, when questioned, failed utterly to explain why they used one standard in one instance, but another standard in another instance.

3. Others, again, have been lacking in the ability—or in the willingness—to give the running comment so much to be desired.

4. The rate of payment is too high for the value of men. It is thought that five dollars per day is quite sufficient for any judge whose labors rarely extend over a few hours.

Now, it will be a pity if any backward step should be taken.

It will be a greater pity if our system of judging should lose in efficiency in any way. If the agricultural fair is to come to its own, it can do so only by stimulating all who attend or patronize it to both think and work towards an ideal. It is surely a judge's business to indicate, not only the strong points of the animals exhibited, but to indicate the ideal that is sought for in such a class of animals. The same rule applies in all the exhibits. Ability to do this does not come in a day, but is, in most cases, the result of long practical experience and of hard thinking and working. One notes with satisfaction the general improvement in some of our smaller fairs, both in exhibits and in management, and this letter is written, in order that those whose business it is to manage such matters, should give more attention to the kind of men who are sent out with the high-sounding title of "expert" judges. Few complaints may have reached the Department. That isn't the point. What is wanted is a body of judges whose work will be so satisfactory that they will be regarded as a necessity at any price. O. C. Wentworth Co., Ont.

Railroad construction, and the opening up of new territory, will make horses so scarce that we will excuse the man who puts the harness on the clothes-horse. You may be late starting to prepare for the demand, but there is no reason why you should not start.

A drink of water in the field on a hot day is sometimes as good as a quart of oats in the stable. At any rate, it is cheaper.

Ventilation Better than Tuberculin.

In his evidence, recently, before the Parliamentary Committee on Agriculture, at Ottawa, Dr. J. G. Rutherford, Chief Veterinary Inspector, stated that, so far, no change has been made in the policy of the Department re tuberculosis. Cattle of any kind coming from other countries, were tested in quarantine. With the exception of animals comprising a few herds which were under the control and supervision of officers of the Department, no official testing with tuberculin is now undertaken, although subject to certain conditions, it is supplied free to qualified veterinarians when employed by owners of cattle.

While no one was more firmly convinced than himself of the value of tuberculin as a diagnostic agent, yet it was subject to certain limitations which justified his attitude in counselling a policy of comparative inertia, now being followed. So far no satisfactory and intelligent method of dealing with bovine tuberculosis has been evolved, and he considered it better to await results of investigation being conducted by scientists in different parts of the world, in order that they might be sure of achieving reasonable results, and thus making some progress in the eradication of tuberculosis before deciding upon a policy which would involve universal and promiscuous testing. He believed firmly in tuberculin, when honestly used, as a diagnostic agent, and for specific and definite purposes, but the fraudulent methods adopted by many owners to prevent the occurrence of a typical reaction, the time which must necessarily elapse after infection before it is possible to obtain from the animal a reaction from tuberculin, would require frequent and repeated tests before it is safe to pronounce free from tuberculosis any herd infected, as well as other limitations which must be allowed for and overcome before compulsory testing should be resorted to. In the meantime, no effort should be spared to induce owners of cattle to adopt every possible means of combating the disease by practical common-sense methods. Thousands of animals were yearly becoming affected, owing to unsanitary conditions under which their owners insist in keeping them, and the importance to live stock of thorough and effective ventilation was of infinitely greater value than tuberculin. To put the case plainly, he stated that stockmen were breeding tuberculosis a great deal faster through neglect of this important subject of ventilation than it would ever be possible to stamp it out by promiscuous use of tuberculin and the slaughter of diseased animals. He was carrying on experiments at the present time which he hoped would be productive of results of value to the stock-owning public.

Dip the Lambs.

When the ewes of the flock are shorn, any ticks that may be upon them will transfer themselves to the longer fleeces of the lambs, where they will find more congenial quarters, and will fatten on fresh young blood. The dipping of the lambs, therefore, in a solution of one of the advertised dips, or of tobacco, a few days after shearing the ewes, should be among the certainties on no account to be neglected. And the ewes, also, will be the better for a dip, or, at least, of having some of the solution that is left over poured on their backs and rubbed on their sides to clean the skin and allay any itchiness that may affect them. A tank or vat made for the purpose of dipping, with a dripping board or platform at the going-out end on which to squeeze out the surplus of solution and carry it back into the tank, should be provided where the flock is of any considerable size, but in the case of small flocks the lambs may be dipped in an ordinary vinegar barrel, and stood in a washtub for the dripping and squeezing-out process. The dipping solution, for best effect, should be warm, though this is not essential, and soft water should, if possible, be used. As a rule, we believe the dipping of the lambs in the spring is the only treatment Canadian flocks receive for the destruction of vermin, but we know from experience that it pays well to treat again in the late fall or early winter, by either dipping or pouring, to guard against the sheep suffering from ticks or lice towards spring, and failing in condition at a time when treatment is impracticable, and the suffering must be endured all through the warm spring months till the usual shearing time, as early shearing (unwashed) is unsafe in the case of in-lamb ewes or sheep in ordinary condition; therefore, to keep a clear conscience and ensure the comfort and thrift of the flock, make it a fixed rule to treat for ticks both in spring and fall. The cost will be doubly repaid in increased growth of wool and gain in weight, and in the general health of the flock.

While some are talking about the sins of the pork-packer, the fellow with hogs to sell is getting the high prices. Prices for hogs may go down, undoubtedly will; but it is not part of the bitterness of the criticism by some due to the fact that hog prices are good, and they have no way to sell?

Notes from Ireland.

THE NATIONAL CATTLE SHOW.

This letter must principally deal with the great annual spring show of the Royal Dublin Society, which took place at Ballsbridge, in the Irish capital, about the middle of April. Of late years this event has been assuming increased importance in stock-breeding circles, not only in Ireland, but also in the whole of the United Kingdom. This year it aroused, as usual, keen interest all over the country, and its offcoming appeared to possess more than customary attractiveness for our cross-channel neighbors in England and Scotland, who were strongly represented, not merely as spectators, but to a larger extent than ever before, as exhibitors in the different sections. Not so very many years ago discussion was rife regarding the advisability of allowing English and Scotch breeders to exhibit in open competition at this show, for the simple reason—let it be confessed—that, as an invariable rule, the visitors had the better of the argument, and took home with them the most coveted trophies and honors of the ring. It then appeared that it was a forlorn hope to expect Irish breeders to compete successfully with the old-established British herds; the best that the Emerald Isle contained were no match for the tip-top specimens of the different breeds brought across the water to put in array against them. It is, however, strikingly significant of the change that has come over Irish stock-breeding during the past few seasons, that this year, at any rate, so far as the Shorthorn is concerned—and this breed is practically the backbone of our cattle industry—our cross-channel rivals have been kept in their place. In all close on 30 English specimens of the red, white and roan were present, and of these only three succeeded in winning first prizes, although they made claim in every class; while all the championships and special prizes for the breed were secured by Irish exhibitors. However, as I may not occupy unlimited space, I must be more

subsequently happened, the rare honor of championship of the show, was bestowed upon a wonderfully symmetrical roan, named Linksfield Champion, owned and exhibited by a prominent lady admirer of the breed, Miss Staples, of Durrow, Queen's Co. This bull last year made what is called in theatrical language, "a tour of the Provinces," and at every show exhibited he met and defeated all comers. He was bred in Scotland by Col. Johnston, of Elgin, and brought over to Ireland a couple of years ago at the not too extravagant price of 50 gs. When exhibited at Dublin he aroused a great amount of attention, and his grand, evenly-fleshed frame, his rare substance and excellent quality, pleased the critics immensely. Ere the show had been many hours in progress he passed into the possession of Mr. F. Miller, of Birkenhead, at the very handsome figure of 500 gs.—ten times his original cost! The photograph reproduced herewith will convey a very fair idea of the general conformation of this bull, although in some respects it hardly does him justice, for he stands closer to the ground, and is fuller and better rounded behind. Reserve for the championship fell to another richly-fleshed roan, in Diamond Link, also bred in Scotland, but now owned by Mr. H. J. C. Toler Aylward, of Cokelanny. This bull won the first prize as the best two-year-old in the show. In the big class of 140 "young" yearling bulls, the place of honor was filled by an exceedingly promising youngster, Extra Stamp by name, bred and exhibited by Sir H. H. Smiley, Bart., of Lorn Co., Antrim. Other successful Shorthorn exhibitors included: Mr. Geo. Harrison, of Gainford Hall, Darlington; Mr. H. S. Leon, Blethley, Bucks; Mr. R. G. Nash, Lucan; Mr. A. Smith, Ballacolla; Mrs. E. Walsh, Cootehill, and the Earl of Bessborough.

Never before has such a fine display been made by the Herefords. All told, 104 of the picturesque white-faces appeared, and special interest and tone were imparted to the section, by reason of the fact that His Majesty the King sent over from his choice herd at Windsor

five grand specimens, which did a good deal of winning. Sir J. R. Cotterell, Bart.; Mr. Peter Coates and Mr. A. E. Hughes, three other well-known and successful English breeders, were also strongly represented; but still the visitors had by no means a monopoly of the honors, as Col. Everard (of tobacco-culture fame), Major Hillas and Major Hamilton creditably upheld the honor of the home country. For use on the great grazing tracts of the midlands, Herefords have much to commend them, and no doubt the excellent turnout of the breed at this show will give them increased favor in the eyes of Irish farmers. An outstanding animal was the King's great champion bull, Fireking,



Linksfield Champion (86401).

Shorthorn bull; born, May, 1903. Winner of Chaloner Plate as champion, Royal Dublin Show, 1906.

specific in my remarks and come directly to the salient characteristics of the show. The fixture, which, as indicated already, was very largely attended, was twice visited by His Excellency Lord Aberdeen, who evinced very keen interest in the proceedings. In all respects the show may be said to have reflected an all-round improvement in the cattle kept in the country; indeed, on no previous occasion has a better collection of breeding stock been seen in any Irish show-yard—this applying not only to the quality, but also to the numerical strength of the exhibits. The services of several prominent English and Scotch breed experts were requisitioned for the judging.

Speaking generally, it was for its magnificent display of Shorthorns that the show was particularly noted. In nine classes this breed was represented by no less than 553 specimens, some of the individual classes containing exceptionally large entries; thus the two provided for "young" and "old" yearling bulls attracted 140 and 130 entries, respectively—the others also being well furnished. The all-round standard of merit attained by the exhibits was gratifyingly high, and needless to say, competition for places proved exceedingly keen. One of the healthiest signs apparent in the section was the increase in the number of "tenant farmer breeders" among the exhibitors, especially from the north, where the breeding of Shorthorns is rapidly becoming a favorite business. Some of these men have already made a great success of the work, and not a few animals have been brought out by them that have sold in public auction at prices running well over 100 gs. But this is digressing, and we have not yet finished with the show. The section set apart for great bulls is always a notable one at Ballsbridge, inasmuch as it succeeds in attracting some of the best "big-buck" in the country. This year the class contained only 50 splendid bulls, which formed quite a fine feature. After a considerable amount of discussion the leading position, and together with it, as

which is as typical a specimen of the breed as has been seen for a long time. He carried all before him in English shows, nor were his colors lowered at our Irish fixture. The comely black Aberdeen-Angus mustered to the extent of 153, and this section contained a notable group of well-bred and symmetrical females from a prominent Scotch herd—that belonged to Mr. Kerr, of Harviestoun Castle. The display, all in all, was a most creditable one, and a very good standard was attained, even in the comparative absence of cross-channel exhibits to strengthen it. Among our Irish exhibitors the most successful were: Mr. E. H. Woods, of Skerries; Mr. E. J. Beaumont Nesbitt, of Edenderry; Mr. A. J. Owen, of Shanvagh; Mr. E. Coey, of Lorne, and Mr. Hum Bland, of Greystones.

These are the breeds that will doubtless appeal most to Canadian readers, and for the remainder it will suffice to merely mention that some excellent specimens of the following breeds were also exhibited: Norfolk and Suffolk Red Polled, Keries, Dexters, Jerseys and Ayrshires.

A good feature was also formed by the several classes for agricultural horses, where Shires and Clydesdales were entered for; while in the section set apart for breeding swine there was a fine representation of quality, even though the entries were not so numerous as they should have been in a country which ranks so prominently in the production of bacon. An interesting development, however, was the appearance for the first time of some specimens of the Large Black breed. Hitherto, the Large Yorks have been alone at this show, but now the Blacks have made their debut, and it would seem as if the latter had promise of a good future in Ireland. At any rate, several specimens have recently been imported, and this usually means business. Before closing my remarks on this show, I would like to mention that in the class for young yearling bulls the prizes offered by the society are: 1st, £30; 2nd, £25; 3rd, £20; 4th, £15; 5th, £10; 6th, £5. Is it any wonder that an entry of 140 is secured? Although

I know that you do things on a big scale across the Atlantic, I would like to learn if you have a show that can beat this.
EMERALD ISLE.

Good Breeding.

The foundation of good breeding with plants and animals is judgment. Better breeding of animals and larger yields per acre of grain and grass is demanding a better breed of farmers. New systems and much thought are required to make farming pay on high-priced land. The successful breeder will never think he knows it all, but will be ready to learn from every reliable source. If he is a beginner in the breeding of stock he will start on a small scale and grow in the business. As the stock improves through better breeding, and the farm crops receive better attention, it will be but a short time before the effect of good judgment will be felt.

Good breeding of animals means clear thinking, and lots of it. It is that kind of work on our farms that is needed. The time to start is right now. Find out in which department of live stock on the farm you are the most familiar and improve it, then carry the work on with the other stock and there will be no doubt of ultimate success.

There is another advantage in breeding good stock on the farm, which appeals, however, to some more than others, and that is the personal satisfaction it gives the farmer. It is a pleasure to count the farm animals as being among the best in the community. Children raised under such environments grow up with a better view of farm life. They will take a greater interest in the things about the farm.—[Successful Farming.

THE FARM.

Cause and Cure of Bad Roads.

Editor "The Farmer's Advocate":

It was with a feeling of great pleasure that I read your editorial on "How not to make roads, and as for your illustrations, they were simply grand, and I hope every farmer and municipal officer that has eyes to see may see them. "To start the ball rolling," I am pleased to answer your three questions.

1st. Similar road conditions to those your camera so faithfully portrayed may be observed in Peel County.

2nd. The frost is partly responsible for the bad roads; but the greater part of the responsibility lies with the farmers themselves, because it is by them that most of the work is not done, and work is done that ought not to be done. Then, too, if the councillors and officers do not do their duty to the roads the farmers have it in their power to give them a free pass at the next election to stay at home.

3rd. (a) The ratepayers could improve the roads by mixing a little brains, interest and enthusiasm with their work; by meeting in Farmers' Institute clubs and discussing the question of good roads, making plans of the work to be done, etc. (b) Municipal councils can improve the roads by the manufacturing of cement tiles for culverts, drains, etc.; by getting the proper road machinery, and being sure to put it in the hands of competent workmen. (c) Provincial Governments could aid very materially in the purchasing of road machinery; by the making of short stretches of permanent road in the different townships as object lessons; and, I might say, shame lessons, because a piece of real good road in the middle of one of those bad stretches would surely shame the people that they would try to improve the latter.

I would like to hear, through the columns of your valuable paper, from some of the presidents or secretaries of farmers' clubs, as to how often they hold their meetings, what they have found to be the best means to get farmers interested so as to attend and take part, and of anything that has been done by the club to better the condition of the farmer.

Peel Co., Ont.

E. E. W.

Endorses the Wind-power Mill.

Editor "The Farmer's Advocate":

I notice in your issue of May 3rd an item headed, "What is the Farmers' Best Power," wherein the writer, who signs himself Farmer, strongly condemns windmills for any other use than for pumping water. He says they are very expensive to keep up, and that people owning them take over 50 per cent. of their grain to the mill to be ground, etc. Now, I have erected on my barn a 14-ft. windmill, and am pleased to say I find it a very satisfactory and cheap power. I have used it since December, 1903, and it has not cost me anything for repairs as yet, and it pumps water for over 40 head of horses and cattle, cuts chaff, grinds nearly all the grain I grow on a 200-acre farm, and cuts the roots—as roots will keep nicely cut two days ahead and if you are doing chores around the barn there is scarcely a day there is not wind enough to cut roots some time in the day. It is true some plates will not last very long, owing to being cast untrue, but I have only happened on one pair of those. I always run my plates close enough together to catch all the small seeds in any kind of grain, and I grind peas or barley into a flour, which I can do with a good wind. A pair of plates lasts me from 10 to 12 months, barring accidents with nails. This is my experience, and I know others who will say the same.

A HOPE TOWNSHIP SUBSCRIBER.

A Test Auger.

We are indebted to Wallace's Farmer for the following description of how to make a simple, inexpensive tool, called a test auger, for boring into the ground to determine the character of the subsoil:

"Take a common inch auger, cut the shank in two and have threads cut on each piece. Then add sections to it, using half-inch gas pipe and connections, which any blacksmith can make at a very small expense. These sections of gas pipe should be about two feet long for convenience. Then by adding section after section he can go down to any depth that he wishes. An inch auger is large enough, as in very tough clay soils a larger auger will be difficult to pull out. Our first test auger was a two-inch auger. While it did very well in light soils, it was not satisfactory in heavier ones. A test auger is simply a common auger extended.

"An arrangement of this kind will not cost more than a dollar or two, and its use will give the farmer a very clear and definite idea of what is under the surface of any particular part of his farm.

"Quite a number of our readers are asking us whether it is possible to dig a well and drain small areas into it, where no outlet is available. An auger of this kind will enable them to settle this point. If on boring down they find within any reasonable distance that there is a bed of gravel or sand, it is possible that a scheme of this kind will work. They can also ascertain the depth at which water may be found, and save the trouble and expense of digging a well as an experiment. These are some of the advantages that result from providing yourself with an auger and finding out what you have in the way of soil."

or point, and that road to the other place or point, and thereby saving time and trouble to the travelling public.
DAN. R. CHISHOLM.

Antigonishe Co., N. S.

How to Improve the Roads.

Editor "The Farmer's Advocate":

That there will have to be a radical change from the present method of making and mending country roads is obvious. The probability is that there will in the near future be a large amount of money spent on our concessions and side roads. Surely that money ought to be spent in the most beneficial and profitable way. Our old method of statute labor was not the best in the world; still, with all its drawbacks, it is preferable to the present. Although I voted for the present commutation, if I had to vote again I would vote for the old way, hoping some better way than either may come about.

This letter is not to have reference to governing of the work, but to show how the roads should be made to be the most beneficial, at the least expense. The first work to be done is draining, which is the foundation of good roadmaking, as it is the foundation of good farming. When I say draining, I do not mean open ditches at each side of the road, but a tile drain, tiles to be not less than three inches in diameter, put in to the depth of two feet and a half right along the center of the road, and run out at the culverts. The next work after draining is to grade the road from each side, not making the road high, with deep ditch on each side, as is usually done, because those high-graded roads are the worst kind that can be made, as I will endeavor to explain. Suppose there is no tile

drain, do your side ditches take away the bottom water from the road, which it is very necessary should be done? I would say no. They may take away the surface water, and that is all they will take. The side ditches are dangerous, both in summer and winter, when teams have to pass each other. Roads that are rounded in the middle, without ditches, give people the privilege of the whole width without being dangerous. In winter, when the roads are full of snow, the ditches are worse than ever, as it is dangerous to take one side or the other because of the ditches. There is something worse about the high-graded road that very few have thought



King Christian of Denmark (86316).

Young Shorthorn bull sold for \$4,720 at the dispersion of the herd of the late Mr. Philo L. Mills, Nottingham, England, May 3rd, 1906.

Flax Fiber for Twine.

There is a good prospect that flax fiber is to take the place of sisal and manila in the manufacturing of binding twine. One twine company is now negotiating with farmers throughout the flax-growing district, with a view of buying this year's flax crop in the bundle. They have spent some years experimenting with flax as a material for binding twine, and claim to have perfected a process which is now in operation that gives results which are entirely satisfactory. They also claim they can produce a binding twine that is in every way equal to sisal or standard twine, and at a much lower price. As running the straw through the threshing machine destroys it for making first-class twine, they are contracting to buy it in the bundle. Flax for this purpose should not be less than twelve inches in length from the butts to the lowest branches. It should be reasonably free from weeds, and should be cut with a self-binder as close to the ground as possible, thereby giving it the greatest length of fiber. The instructions to the farmers who propose to grow flax for fiber are to carefully shock, and leave it in the field until it is well cured. When sufficiently dry for baling or for stacking, it will be delivered in bundles at the nearest railroad station, where it will be received and paid for according to its quality. The twine manufacturers will buy the entire crop. They can only use the straw when it has been kept straight.—[The Farmer, St. Paul, Minn.

Finger-boards at the Crossroads.

Editor "The Farmer's Advocate":

I notice with pleasure your very practical suggestion in the matter of farmers, and others, having their names written on the road gate leading to their houses, and trust it will be adopted and become general. I beg to make another suggestion, and one which, I think, should be taken up by our municipal boards, viz.: In Nova Scotia and every Province of the Dominion the country is intersected with roads, leading almost in every direction. Would it not be useful to have a signboard showing that this road leads to this place

of. Imagine a high-graded road from the center down the grade to and below the bottom of the ditch, probably two feet. Where is the bottom water that is cased into the middle of the road to escape? Nowhere but to the surface, in the middle of the road, where the frost first comes out of the ground in the spring, to make bog-holes for our expensive gravel to be buried in. Would not a tile drain be a good investment there?

Someone may say, are we to dig up the middle of the road where it is graded and gravelled? I will say yes, and it will be cheaper than putting gravel in a mud hole year after year, and still the roads are bad. What I have written is from practical knowledge and observation, and I will give two illustrations in point for proof. On the Wellington road, south of London, was a place that used to be almost impassable at the time the frost was coming out of the ground in spring. The bog-hole was done away with by a tile drain up the center of the road, and that section of the road has been good ever since, in all kinds of weather. Another instance: On the fifth concession of Westminster, Mr. Cousin, then a Township Councillor, caused a piece of drain to be dug down the center of the road and tile put therein to take water from a low place in the road. It could have been dug for half of the money down the ditch at the side of the road. That is a part of the road that has needed no repairing since, while many a load of gravel has been put on both east and west of it. After the work was done some people pronounced the councillor crazy, but the extra money laid out on the tile drain has been redeemed long ago, in the saving of gravel, and this is a better part of the road to-day than that east and west, where new gravel has been used.

Now, what I would suggest to township councils is to try the tile draining on the parts of the road most needing draining, if they doubt the practical working of the tile-drain method for saving gravel.

I hope to hear more from fellow farmers, so that the powers that be may have a thorough knowledge of what is good roadmaking from the farmers' standpoint.
Middlesex Co., Ont.
JOHN LAWSON.

Turnip Culture.

While turnips need not be sown before the middle of June, and are generally safer from attack by the fly if sown between the 15th and 20th of that month, the land should be worked in the meantime, to start and destroy as many weeds as possible while they are young, and also to aid in conserving moisture in the soil. It is almost essential to success in turnip-growing, on most soils, that the land shall have been plowed in the fall, having had the benefit of the effect of the frost of winter in rendering it friable. If manure has been applied in the fall or winter all the better; but if not, fresh manure from the barnyard at this season may be spread, plowed under, and incorporated with the soil by cultivation. By frequent use of the roller, harrow, and other implements, the land should be reduced to a very fine tilth before ridging or drilling up for sowing. A double-mouldboard plow is a great advantage in ridging, but a good plowman can make neat work with a single-mouldboard plow, and, where the acreage is small, this answers the purpose very well. The ridges should be not less than 26 inches apart, and 30 inches may be preferable. These need not—and had better not—be high, but must be sharp at the top to fit the ordinary turnip drill, in order that the seed may be sown at a uniform depth of about an inch or an inch and a half, and the ridges may be flattened by the use of the roller after sowing. Two pounds of seed per acre is abundance to sow, and where there is plenty of moisture in the land, a half pound less is quite sufficient, and will facilitate the process of thinning the plants, though it is considered safer to sow liberally, in case the fly should make a heavy siege on them. If there is considerable moisture in the land, it is a good plan to sow in the evening of each day the ridges that have been prepared that day; but in clay soil, especially, unless there is considerable moisture present, it is better to wait for a shower, and sow after the rain, as the packing of the land by the rain, and the tendency to crust the surface is liable to prevent the tender plants from coming through, and delays their growth, while if sown after the rain, they come up in a few days, and, having plenty of room, moisture and air, grow rapidly, without any check.

As soon as the plants are well up, especially if crust has formed, the scuffer should be started to destroy young weeds and admit air, to aid the growth of the plants and help retain moisture in the soil. For the purpose of breaking the crust, it is sometimes well to use the roller, but the most effective implement for this, and for destroying young weeds is the wheel hoe, a light hand implement, which straddles the row, and has sharp knives which cut the crust on both sides of the plants. This, no doubt, with a little ingenuity, may be arranged to be drawn by a horse; but next to this, the common horse hoe, going a round to a row, answers the purpose well. Too much importance can scarcely be attached to this matter of preventing crust formation, and of breaking the crust and frequently moving the surface soil early after each rain, as upon this depends largely the success of the crop. Singling the plants to a distance of 10 to 12 inches apart should be commenced soon after they are in the rough leaf, and, with a little practice, this can be done rapidly with the turnip hoe, with the blade set square to the handle, and with a pulling and pushing motion, without touching the plants with the hands, but cutting out with each stroke the full width of the hoe, and selecting the strongest plant to be left. A second hoeing later on may be necessary, in order to cut out any weeds that may have escaped, and will pay well for the doing, though if well done at first, and the horse hoe used frequently, and especially after rains, the crop will, as a rule, go on well, and prove one of the most profitable on the farm for feeding purposes.

Sow Clover.

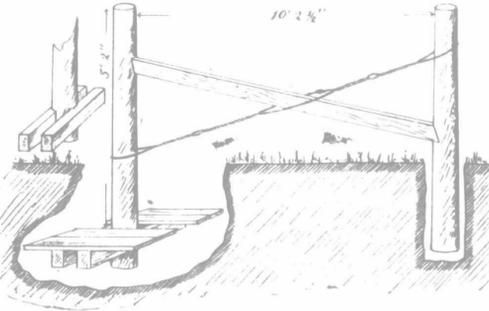
Many weeds are now showing themselves around our buildings and lanes and fence corners, and this is the time of the year for the farmer to see that these pests are destroyed. In a very short time the rush of farm work will be in again, and no time will be available for anything but pressing duties. The old-fashioned grub hoe or a "spud" with a foot attachment is the burdock's foe. A pocketful of clover is a splendid thing for the farmer to take with him on his campaign of extermination. For every weed uprooted let a few seeds of clover be sown in its place. This will mean later on not only that colts and cows will be free from troublesome seeds and burrs, but that many a mouthful will be available for cattle and hogs and fowl, and that the farm will be freer from those pests who find in the weeds their most congenial hiding place. A very few hours' attention now will accomplish what will look like a formidable task in a month or six weeks. C. J. Wentworth Co., Ont.

The wealth, beauty, fertility and healthfulness of the country largely depend upon the conservation of our forests and the planting of trees.—J. G. Whittier.

How to Anchor and How Not to Anchor Corner Fence Posts.

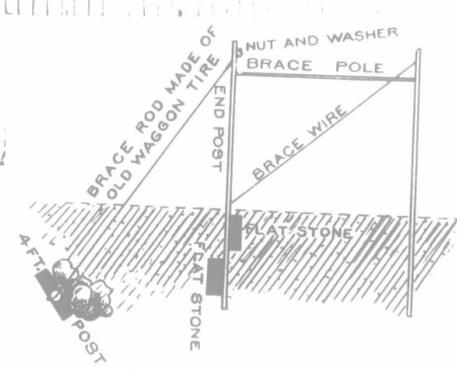
Editor "The Farmer's Advocate":

My experience and observation has taught me some methods to adopt and some things to avoid in the anchoring of wire fences. One method in very general use of which I do not approve is style No. 1, shown



No. 1.

herewith, as those mortises for scantling will soon rot off, and that brace pole placed on a slant, as in cut, gives the end post a lifting tendency, and throws a heavy strain on the brace wire. Observers, see if in nine cases out of ten where a fence is braced in this way, the end post is not more or less raised? A speedy and economical way I find is as shown in cut 2.



No. 2.

Keep the brace pole straight. Put 4-foot post through ring at lower end of brace rod, 2 1/2 ft. below ground, and load with stone. Bore hole for brace rod in end post nearer the side on which fence wire will be put, and use a heavy washer. E. C. R. Perth Co., Ont.



First-prize Yorkshire Boar.

Ayr Show, Scotland. Exhibited by Mr. Wallace, Broomhouse, Midlothian.

Use of the Weeder.

It has been noted that the Breed weeder, as well as other makes of this useful implement, are less talked about than some years ago. Some men have bought it, or tried it, and been disappointed, saying that it was not all it was cracked up to be. In those cases the dissatisfaction arises from a misunderstanding of its utility. The farmer on heavy land, who lets a solid crust form in his cornfield before working it, need not expect the weeder to do effective work. The utility of the weeder is to prevent crusts from forming, not to break up stubborn ones after they are formed. For the former purpose it is worth nearly, if not quite all that the manufacturer claims for it. About the only land, we believe, on which it is not satisfactory is a stiff clay, and even here it can be employed to some good purpose. The weeder is a fast-working implement, highly profitable to use, and even though a discredited at present seem to be increasing in popularity, it is not to be appreciated and put to use by and-by, unless something

better comes to take its place. The up-to-date corn-grower's motto is, "Don't let the crust form," and the weeder is a valuable means of serving the purpose.

Our Western Letter.

It rained all night last night in the Province of Alberta, and to-day it still threatens to continue. Everybody looks glad, for the earth was dry, and, in the poetic language of a local paper, "The golden raindrops fell from heaven all night, and the thirsty earth reached up and licked it in." Even flowers grow in the newspapers after such refreshing showers! The question of farming in this Province is largely one of moisture. We only have an average of from thirteen to twenty inches rainfall, but you have to reckon that that does not come as it does in Ontario. We have no big April floods or November rains. The most of it gets here in May and June, and that's when we want it, and when it does the most good.

The Calgary spring sale is the big event in the live-stock world out here. Prices this year are away ahead of last year, or, in fact, of any year since the inception of the sale. Better quality is one reason. Keener demand is the other. The people are more optimistic this year than ever, and right good cause they have for feeling so, for everything looks rosy just now.

The first Legislature is over. It was quite a novelty to us for some time to have a Government of our own, but the newness will wear off in time. The estimates look big, but when simmered down to actual facts, agriculture has come out pretty much at the small end of the horn. There has been a good big appropriation to bolster up the sugar-beet industry, but live stock and other things are expected to look out for themselves.

Preparations are being made for the summer shows. We have them pretty early in the West. Last year the exhibitions were proverbial for the accumulations of mud, raked up in the form of side-shows. This year there will be a change. The shows will be cleaned up, and the Pike and Midway have seen their best—I beg your pardon—worst days.

Land values continue to appreciate steadily, especially along the new lines of railway. The C. P. R. has recently raised the price of its land along the line of the G. T. P. and C. N. R. to exorbitant figures. This is a piece of downright cussedness, inspired by the one object of putting a choke-band around the throats of these two railways, by preventing settlement in country tributary to them. Such conduct is detrimental to the country as a whole, and the C. P. R. should learn the fact that it is a dangerous policy to muzzle the ox that has been so patient in treading out the corn, as the people will tire after a while, and the C. P. will find the mistake it has made. After all, it is the people who rule.

R. J. D.

How the Seed Control Act Works for the Farmer.

Editor "The Farmer's Advocate":

Please permit me a small space in your valuable farm paper just to explain how the Seed Control Act appears to the farmer. It has controlled the little profit that was in growing timothy and clover seed right out of our reach, and will be the cause of more weed seeds being sown than was before, as farmers cannot afford to pay the big price for seed that comes out of a bag with a tag on it, and he will buy his seed from a neighbor who sells his seed dirt and all. I don't know of timothy seed bringing more than \$1.00 per bushel this spring to the farmer, and re-cleaned seed is held at \$3.75 per bushel, and we don't know if it is any cleaner than our own. Who gets the \$2.75? It is not the farmer. Red clover was bought from farmers last fall for \$6.50, right from the huller, dirt and all, without seeing it, and farmers cleaned seed that tested 94.18, and in 16 grams of which there were only three curled docks and one catch-fly (two weeds that are on most every farm), only brought \$7.25, and Government-stamped seed was held at \$12.00. Now, who got the \$4.25, and what did they get it for? It was not the farmer. Why don't they pay the farmer according to how his seed tests, and re-clean it or sell it out again accordingly? It is no encouragement for a farmer to grow clean seed, and it is an encouragement for the buyer to buy dirty seed. Someone is making money out of the Seed Control Act our Government framed for us; but it is not the farmer. But what does the Government care for the farmer? We are not dragging after them for a job. Thanking you for this space, I hope to hear how it suits the re-cleaner.

Lambton Co., Ont. LAMBTON FARMER.

Insurance inspectors, to be acceptable to some of the companies, should be picked from amongst a company of blind men.

THE DAIRY.

Facts About Moisture and Its Effect on Butter.

Editor "The Farmer's Advocate":

Water is one of the constituents of butter; in fact, butter-fat would not be palatable without it. Of course the question naturally arises, what percentage is advisable to incorporate? The law of the United States and some other countries has fixed 16 per cent. as the maximum. A great deal of discussion has taken place during the last three or four months, through the dairy press, on the effects of high and low moisture on keeping qualities of butter. No doubt a lot of butter was put in storage last year that had very poor keeping qualities, and some of this butter had a high per cent. of moisture. A New York Produce Review editorial claimed that water not only caused poor keeping qualities, but that it was actually responsible for "fishy flavors" also. When challenged to produce statistics to prove his contention, the writer had to admit that he had no facts to substantiate the accusations.

The enormous amount of poor butter that has reached many of the Eastern markets has, no doubt, been made largely in some of our central plants. It was customary, before the grading of cream was adopted, to make two grades of butter in some of the central plants. The best grade of cream was worked up by itself, and about 15 or 15½ per cent. of water was incorporated. In the second grade of cream a very high per cent. of water was incorporated to offset the loss in quality, as this cream had cost the owner the same price as the first grade. When this second-grade butter found its way to the Eastern markets it naturally lacked keeping qualities, owing to the fact that the cream was partly spoiled before it was made up. As this butter contained a high per cent. of moisture, the natural conclusion, by a person not knowing much about the causes of deterioration of butter, was that the high per cent. of water found in this low-grade butter was the cause of its deterioration, so some facts on this subject may interest your readers.

A good grade of butter cannot be made where old, stale or rotten cream is used. Anyone who has the interest of the great dairy industry of the country at heart would not be disloyal enough to advocate a method that he knew would be injurious to the finished product. Quality is the essential thing, therefore everything else should give way to quality. The question of moisture has always appeared to the writer as one of common sense and business. If a maker can incorporate 14 or even 15 per cent. water, and make a uniform high grade of butter, it is to his best interest, and to the best interest of the patrons, for him to do so.

The Ames (Iowa) Dairy School has done more work along this line during the last five years, possibly, than any other school in the world. The work has been done by well-trained scientists, and a detailed record has been carefully kept. A little history of the moisture question might be interesting to some readers. During the year 1901, the writer made a trip to Europe for Secretary Wilson, to look up some matters pertaining to dairying. His first attention was called to moisture in London. Two weeks were spent there examining butter, where the writer had access to many of the leading cellars or butter rooms. It was very interesting to study the requirements of that famous market, and notice the wide variation in prices. The writer while there fitted up a crude laboratory, and made a number of tests of butter from different countries. It was found that the highest selling butters in that market were the French rolls and the Danish selected. Both lots of butter showed a quite high water content.

In going to Denmark, and still further pursuing the study of butter, it was found that their butter, as a whole, was inclined to run quite high in moisture. Making inquiries of some of their leading scientists, it was found that some samples of their highest-scoring butter had actually in exceptional cases run as high as 18½ per cent. in moisture, and at the same time had shown remarkably good keeping qualities. The writer, on coming back to America, started an investigation in connection with Prof. Larsen of our school. After being thoroughly convinced that moisture content could be controlled, an educational scoring contest was started, in which fifty-five of our leading creameries participated.

This was about as severe a test on the keeping qualities of butter as could be inaugurated. The butter was shipped to the College by express, and was scored here by the writer and P. H. Kieffer, after which it was held here for two weeks, at a temperature from 55° to 60°. It was then shipped to Gude Bros., of New York, and re-scored by Mr. Healy, the well-known butter expert. In all, 222 tubs were examined in this way, and there was not one case where Mr. Healy reported "fishy flavor."

A careful scrutiny of the following table will disclose some startling facts on this point:—

Date Butter Made.	Score by McKay and Kieffer.	Score by Healy.	Average score for high moisture.	Average score for low moisture.	Points lost at N. Y. high in moisture.	Points lost at N. Y. low in moisture.	Fat.	Moisture.	Curd.	Salt and Ash.
May 22.....	93	88	0	91½	0	7	86.26	10.64	1.09	2.01
Aug. 22.....	95	91	93	0	4	0	83.69	14.70	.90	1.71
Jan. 9.....	85½	84	0	84½	0	1½	85.42	11.25	1.33	2
Aug. 22.....	90½	90	90½	0	0	0	81.44	14.81	1.52	2.23
Jan. 4.....	89½	89	0	89½	0	0	83.17	12.75	1.71	2.37
Aug. 22.....	79	82½	80½	0	3½ gain	0	81.83	14.91	.77	2.49
Jan. 5.....	92½	90	0	91½	0	2½	86.02	11.26	1.64	1.08
May 22.....	96	92	94	0	4	0	82.52	14.32	1.00	2.16
Jan. 7.....	91	88	0	89½	0	3	86.09	10.26	1.36	2.29
May 22.....	93	93	93	0	0	0	81.87	13.88	.99	3.26
Jan. 9.....	89	87	0	88	0	2	85.35	10.64	1.75	2.26
May 22.....	91½	80	90½	0	2½	0	82.40	13.40	1.49	2.71
May 22.....	92½	83	0	87½	0	9½	85.89	11.07	1.44	.90
Nov. 11.....	91	89	90	0	2	0	81.18	14.58	1.37	2.97
Jan. 7.....	97	87	0	92	0	10	84.18	12.77	1.53	1.52
May 22.....	98½	93	95½	0	5½	0	83.05	13.92	.92	2.11
May 22.....	96	92	0	94	0	4	87.10	10.92	.84	1.23
Nov. 11.....	95	91	93	0	4	0	82.47	13.68	1.19	2.67
Mar. 12.....	90½	90	0	90½	0	½	87.48	9.93	1.60	.99
Nov. 11.....	92½	89	90½	0	3½	0	82.37	16.39	.87	.37
Mar. 12.....	91½	86	0	88½	0	5½	88.69	10.00	1.21	1.00
Aug. 22.....	97½	89	93½	0	8½	0	81.27	16.08	.96	1.69
Mar. 12.....	89½	82	0	85½	0	½	85.92	10.70	1.58	1.69
Aug. 22.....	87	84	85½	0	3	0	83.92	13.52	.93	1.68
Jan. 7.....	91	87	0	89	0	4	87.87	9.34	1.49	1.30
Aug. 22.....	92	89½	90½	0	3½	0	82.75	15.32	.94	.99
Jan. 3.....	96	91	0	93½	0	5	84.09	11.93	1.49	2.49
Nov. 11.....	95½	91	93½	0	4½	0	80.88	15.30	1.40	2.42
Mar. 12.....	96½	90	0	93½	0	6½	85.08	11.76	1.04	2.12
Jan. 1.....	95	89	92	0	6	0	76.65	20.08	1.88	1.39
Jan. 3.....	90	84	0	87	0	6	86.12	10.10	2.58	1.20
Mar. 12.....	90½	88	89½	0	2½	0	82.76	14.24	1.90	1.10
Mar. 12.....	91½	83	0	87½	0	8½	86.13	11.59	.84	1.44
Nov. 11.....	92	88	90	0	4	0	76.79	18.76	1.98	2.47
Jan. 9.....	90	87	0	88½	0	3	85.96	10.82	1.48	1.74
May 22.....	95½	94	94½	0	1½	0	81.70	13.61	1.35	3.34
Nov. 11.....	91½	89	0	90½	0	2½	86.03	10.69	1.51	1.77
Jan. 1.....	96½	89	92½	0	7½	0	75.60	20.67	1.09	2.64
Nov. 11.....	95½	89	0	92½	0	6	84.77	10.36	1.56	3.31
Aug. 22.....	98	92	95	0	6	0	82.46	14.19	1.09	2.26
Jan. 3.....	91½	87	89½	0	4½	0	80.96	14.51	1.58	2.95
May 22.....	92½	89	90½	0	3½	0	77.82	17.27	.97	3.94
Aug. 22.....	96½	91	93½	0	5½	0	80.95	15.56	.88	2.61
Nov. 11.....	96½	91	93½	0	5½	0	79.96	16.42	1.27	2.35
Mar. 12.....	94	88	0	91	0	6	87.52	10.34	1.14	1.00
Mar. 12.....	90	86	0	88	0	4	91.20	7.56	.64	.88
Jan. 7.....	92½	88	0	90½	0	4½	87.39	10.09	1.48	1.04
Jan. 5.....	98	91	0	94½	0	7	86.4	10.07	1.42	1.48

Average score for high moisture butter.....	91.42
Average score for low moisture butter.....	89.90
Total points lost in keeping quality, high moisture butter.....	88½
Total points lost in keeping quality, low moisture butter.....	116½
Loss per tub on high moisture.....	3.26
Loss per tub on low moisture.....	4.84
Average water content of high moisture butter.....	15.42
Average water content of low moisture butter.....	10.75

The writer took from our book of records the result of 48 chemical analyses and scorings. The first forty of these, high and low, were from the same creameries. The butter showing the highest and that showing the lowest per cent. of moisture, from the same creamery, were used for comparison. Here it was found that the high per cent. moisture not only scored the highest, but actually showed one point per tub better keeping qualities than the low moisture. In one case the water content ran up to 18.77, and the loss was only four points in keeping qualities. The greatest loss in keeping qualities was on entry No. 12, showing 12.77 water and losing 10 points in keeping qualities. The next greatest loss was on No. 11, showing 11.67 of moisture, and losing nine and a half points. While the loss was only 7½ on entry 43, the water content ran up to 20.67.

It will be found that in this contest the average water content varied from 7.56 to 20.67. When this contest first began the water content varied from 7.56 to 14 and a fraction, and only one this high. About 90 per cent. of this butter contained nearly 11 per cent. of moisture. During the entire contest the makers were endeavoring to increase the moisture content to a reasonable amount without injuring the quality.

Of the 222 samples analyzed, only eight went above the water limit, and the average was 12.73 in moisture content. In samples shown in table it will be found that the average water content of the lowest-scoring butter and poorest-keeping butter was 10.75, while that of the highest-scoring butter had an average water content of 15.42. One maker in this contest, who had a moisture content of over 14 per cent. to commence with, averaged for the entire year 15.20. He scored third place in the contest, and fourth place in the State convention the following fall. His butter was made in a whole-milk creamery, and was sold at a two-cent premium the most of the year, and was recognized as one of the best creameries in the State. Twice during the contest his butter went just beyond the limit of 16 per cent., so the water in this case could not have had any serious effect on the quality of butter.

I am not writing this article for the purpose of increasing the moisture content of butter, but merely to show the facts as they exist. It was reported some time ago in the Chicago Produce that a speaker in Michigan had told his audience how the Iowa butter had deteriorated so much in keeping qualities, owing to high water content, that it was being refused in Eastern markets. He asked his audience to pause and let his statement "soak in." We would earnestly ask those who have been making statements of the same kind without facts, to pause and let the facts as they exist get through their craniums.

We must confess that we are not familiar with all the changes that take place in butter while in New York. It was reported by a writer of the last Creamery Journal that some Hebrew retail men were loading butter with 40 per cent. water at the rate of 250 tubs per day. This, we presume, is on a par with some of the other wild statements made on this subject. We also read of the English merchant loading the colonial butter with water, as a lot of this butter contained only 7 or 10 per cent. of moisture on its arrival. We believe it would be better for the average maker to incorporate as much as 14 per cent. of water, and then there would not be the same temptation for retail men or commission men to do it.

Some writers contend that butter with high water content must necessarily contain more bacteria, therefore it would be lacking in keeping qualities. It is true that many germs are found in ordinary well water, but it has not been demonstrated that all of these are injurious to keeping qualities of butter. Many putrefactive germs found in wash water, no doubt, would have an injurious effect if placed in pasteurized cream or sweet cream, where they would be greatly in the majority, but in the presence of cream having a preponderance of lactic acid bacteria, they die off very rapidly. On the other hand, with partly decomposed, old, overripe cream, which contains a high per cent. of injurious micro-organisms, it would be folly to pasteurize wash water, as the germs are already present that will cause the butter to further deteriorate.

With butter containing 10, 12, 14 or 16 per cent. water, we believe the effect of the germ content would be so slight that it would be scarcely noticeable. In fact, we think it would depend largely on the condition of cream used in the butter.

Some bacteriologists are even skeptical about bacteria found in water having any injurious effect on butter made from good, well-ripened cream, as the bacteria already present would overcome the effect of the germ content in the wash water.

Theoretically speaking, it would seem that pasteurization of wash water would be beneficial to the keeping qualities of butter. During last winter we had water sent in from three different places that was supposed to be injurious to butter. We tested this, by inoculating our wash water with it, and also inoculated the cream direct, but in no case did we find any injurious effect; therefore, we believe that ordinary well water has possibly little effect on butter. We must confess that we were surprised on looking up the records above mentioned, as we did not expect to find any difference in keeping quality in butter with high water content and low water content, and we still are a little doubtful if there actually is any difference, as we found good-keeping qualities to exist in both cases.

Poor-keeping qualities of butter are the outcome of overripe cream and unsanitary methods pursued some place between the time the milk is drawn and its manufacture. There is no danger of any maker incorporating too much water, who churns his butter in a granular condition, and does not resort to abnormal methods, such as churning at high temperatures, washing with warm water, over-churning, or working the butter in water.

G. L. McKAY.

Dairy Department, Iowa Agricultural College.

Danish Butter Export Associations.

Although the great bulk of the butter trade in Denmark is handled by butter exporters, many creameries in recent years have formed themselves into butter-export associations, doing business direct with buyers in Great Britain. They find that a slightly higher price can be obtained, and it becomes possible to handle the business on the only sound basis—that of quality. The creameries supplying the best butter get the highest price.

There are some half-dozen of these associations, including nearly two hundred creameries, and the modus operandi is usually that each organization is self-governed, the business being handled by a qualified managing director and a salesman, appointed by the representatives of the various creameries holding membership.

The butter is shipped weekly from the creameries to the central storage station of the association. Three packages of butter are picked out promiscuously from each creamery's shipment. The packages, being opened, are covered by a hood, so as to conceal their identity, and then scored by two creamery managers and the salesman of the association.

The managers of all the creameries in the association officiate as judges, in turn.

This method of scoring the butter is considered an absolute guarantee of impartiality, and gives the individual creamerymen an excellent opportunity to see and judge their own butter in comparison with that from other creameries, and in acting on the information and experience thus gained they may be able to effect a great improvement in the quality of their butter, and consequently realize the highest price for it.—[C. Marker, Dairy Commissioner's Branch, Ottawa.

Shelter the Calves.

Calves that are being raised "by hand," if allowed to run out on pasture, should be provided with a shed or shelter of some sort to protect them from the rain and sun; and if the shed can be darkened, to protect the youngsters from the plague of flies in hot weather, it will be all the better, as calves suffer much if exposed during the day time to this torture. The shed, however, should be kept clean and well bedded, or the cure may prove worse than the complaint.

The ideal arrangement for calves is to keep them in a comfortable, well-bedded box stall or shed during the day, feeding some bran and chopped oats, with good hay and water at will, and give them the run of a pasture lot at night. The exercise will serve to strengthen their bone and muscle, and they will thus be kept improving without any check or backset. If it is not convenient to give them the benefit of both the pasture and shed, we would much prefer to keep them in during the summer, feed so as to keep them growing steadily, but a run out in the yard for a while, night and morning, can generally be provided for, and will be helpful in creating stamina and strengthening the constitution.

Received reading glass and microscope a few days ago. Please accept thanks. Your paper and premium are highly appreciated, and I hope I will be able to forward more new subscribers in the future. Wishing you success.

Victoria Co., Ont.

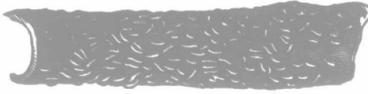
THOS. HANDLEY.

GARDEN & ORCHARD.

Oyster-shell Bark-louse.

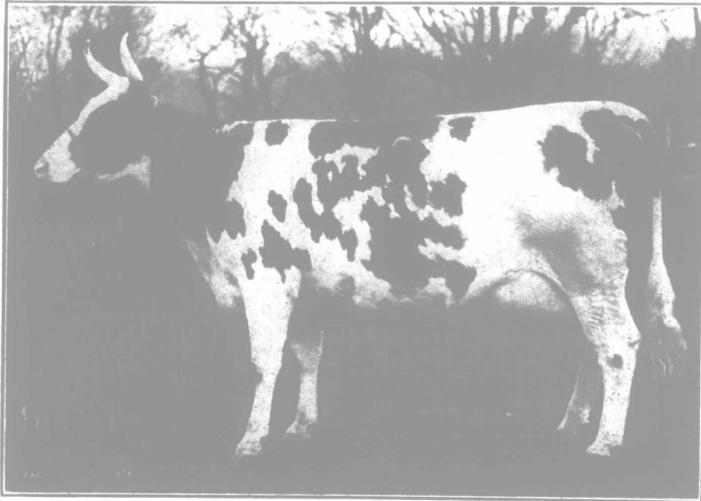
Trees of a young orchard, five years set, are badly infested with scale, sample of which I enclose. Please tell what it is, and how to treat it. R. J. McR.

Ans.—This is oyster-shell bark-louse. At least a dozen people have sent us specimens of it for identification within the last year. It occurs nearly, if not quite, all over the Dominion. Though troublesome and



somewhat injurious to the trees, it is not liable to kill them. Its prevalence and the widespread interest it has aroused warrant us in reprinting an illustrated description, by Dr. Jas. Fletcher, Ottawa, which appeared in our columns last year.

There is only one brood of oyster-shell bark-louse in the year. The young bark-lice emerge from beneath the old scale in Ontario and British Columbia about the end of May, and in the Maritime Provinces about the end of June. At that time they are small, six-legged insects, resembling mites. After emerging they wander about the trees for a few hours, looking for a suitable place to attach themselves to the bark, which they do by means of their slender beaks. Once having attached themselves, they never move from that place; gradually their legs disappear, with the increase in the size of their bodies, and a waxy scale is secreted over



Bertha.

Champion female Ayrshire, Ayr Show, Scotland, 1906. Exhibited by Messrs. Hunter, Adamhill, Craigie.

them. By the middle of August the female bark-louse has practically changed into a bag of eggs protected by a scale. Little by little the body of the mother dries up; and, when all her eggs are laid, the scale is well filled with these minute white objects, and the mother's body is merely an empty skin at the small end of the scale. The scales of the male bark-lice are seldom noticed. They are of different shape, and, as a rule, occur on the leaves. They are much smaller than those of the female, and are long, narrow and white. The perfect male is a tiny-winged insect which is able to fly well.

Trees upon which this insect occurs are weakened by being robbed of their sap by these small insects, which frequently occur in such enormous numbers as almost to coat the trees and entirely hide the bark. Although so destructive in all parts of Canada, the oyster-shell bark-louse is not a particularly hard insect to control where trees are attended to regularly. The first step to take when an orchard is found to be attacked is to invigorate the trees by plowing around them and feeding them with some quick-acting fertilizer, such as manure or a dressing of wood ashes. When trees have been standing in sod, it is well to break this up. Trees which are planted too closely should be pruned and cleaned out, so that they may be easy of access for spraying and other operations. As soon as the winter has set in the trees should be sprayed thoroughly with thin lime wash, one pound of lime in each gallon of water. Two coats must be applied, the second immediately after the first is dry. Where the lime-sulphur or the lime-sulphur-and-salt wash is used to protect trees against fungous and insect enemies, there will never be any trouble with the oyster-shell bark-louse. The young bark-lice emerge from their mother's scales during June, the exact date should be watched for, and, immediately the dust-like yellow mites are noticed, the trees should be sprayed without delay with weak kerosene emulsion,

or a whale-oil soap solution, using one pound to six gallons of water.

In south-western Ontario excellent work has been done in preventing the spread of this scale by a minute chalcid parasite, *Aphelinus mytilaspidis*. It is bright yellow in color, with golden eyes, and measures one-thirty-sixth of an inch in length, being so small it can hardly be seen with the naked eye. The parasite is sometimes so abundant that it destroys more than half the scales that are formed."

Potato Spraying.

Nowadays nearly every potato-grower uses Paris green, or some other insecticide, to "doctor" the chronic pest, the Colorado potato beetle. Some are unconscious that there is another enemy, less conspicuous, but more insidious and scarcely less general, which requires an application of blue-stone, or some other fungicide. We refer to blight and rot. There are two kinds of blight—the early and the late blight. Both injure the foliage and reduce the yield just as surely as consumption of the tissue by bugs. The late blight, however, does more. It causes rot. Spores ripen upon the leaves, fall upon the ground, and are washed upon the tubers by rains, and thus, it is believed, gain entrance to the tissue of the tuber, grow through it, and cause the familiar trouble called potato rot. The mycelial or threadlike growth, which constitutes the vegetative portion of the fungus, may also reach the tuber by working down through the stalks. Thorough spraying for blight prevents this prolific source of loss. It should be mentioned, however, that the blight rot is not the only kind of rot which may affect this useful vegetable. Last fall there appeared in our issue of October 19th a description of a particular kind of rot, caused by a specific bacterium, which grows rapidly in the tissues of the potato, and cannot be got at or prevented by spraying. This fact, however, is no reason why one should not do what he can to prevent loss by blight and its attendant form of rot. We run enough risks in farming after everything in our power to reduce them. Of the two kinds of blight, the early blight, appearing usually the last of June or early in July, does the greater injury to the leaves. It is particularly prolific during dry weather, and in unthrifty patches. It is often present, and causes premature dying of the vines, without its presence being suspected.

There is this difference between spraying for bugs and spraying for blight: Bugs may be combated by poisoning their food supply after they begin to appear. Blight, like all fungous diseases, gains entrance to the plant, permeates its tissues, and does not appear on the surface till the spore-forming stage, by which time it has done some of its injurious work, and is, moreover, largely immune from the effect of fungicides. Spraying for blight and rot must be preventive. Potatoes should be sprayed for blight whether they appear to need it or not. The grower cannot tell whether they will need it until too late to combat the blight.

Does potato-spraying pay? The question was convincingly answered last year in an article quoting some "business experiments," conducted on quite a large scale by fourteen New York State potato-growers, under the supervision of the State Experiment Station. The average gain per acre from spraying was 62½ bushels; the average cost of spraying per acre was \$1.98; the average cost per acre for each spraying being 93 cents; average net profit per acre, \$24.86. Both Paris green and Bordeaux mixture were used.

At the Central Experimental Farm, Ottawa, the average annual increase in yield per acre in three years' experiments, spraying with Bordeaux, was 94 bushels, the cost being from four to six dollars. Three to four sprayings were found sufficient.

Prof. L. R. Jones, of Vermont Experiment Station, in 1903, gave as the average result of 13 years' experiments, a yield of 286 bushels when sprayed, as against 171 when unsprayed, or an average difference of 115 bushels as the result of spraying with Bordeaux.

Besides the gain in yield, we must credit spraying with a great improvement in the edibility of the tubers. Blight, by affecting the leaves, and causing premature dying of the tops, interferes with starch formation, and instead of permitting

the potatoes to develop a mature, mealy consistency, it results in a soggy, watery and less nutritious flesh. It would probably pay a man growing potatoes for his own use to spray for blight for this reason alone.

There are other reasons why the use of Bordeaux is advisable. Paris green alone is liable to injure foliage, particularly if the drug be of inferior quality, containing much free arsenious acid. To neutralize any such acid present, and also to make the poison adhere better to the leaves, it is necessary to use lime. In fact, Paris green should never be used without lime. Cases of serious injury to the foliage from the use of Paris green alone came to our notice last summer. Since it is advisable to use the lime anyway, why not add the bluestone, which, with lime and water, forms Bordeaux mixture, and thus have a fungicide? It really costs little or no more to combat bugs with Bordeaux and Paris green than with the latter alone, for the reason that the lime in the former causes the spray to adhere so much better, and the applications need not be so frequent. Bordeaux mixture and Paris green are also the best remedy for the cucumber flea-beetle, which sometimes, in hot, dry summers, eats many small holes through the leaves, reducing them so that they cannot fully perform their functions. The above mixture is a much more effective means of combating this insect than is Paris green alone.

The practical directions to be deduced from the foregoing are these: When the potato beetles first appear, spray with Bordeaux mixture and Paris green; repeat at intervals of ten days or two weeks, so as to keep the vines coated with the mixture. When insects cease to be troublesome, omit the Paris green, but continue the Bordeaux spraying as long as the plants remain green. Be especially careful to keep the foliage well coated during damp, muggy weather, for then the blight spreads fastest.

Directions for preparing Bordeaux have been often given in these columns, but we repeat in brief. The usual formula recommended is: bluestone, 5 lbs.; lime, 5 lbs.; water, 40 gallons. To this, add for the bugs, 4 ounces Paris green. Slake the lime, and dissolve the bluestone in separate vessels. Mix the Paris green with water to a thin, soupy paste, and stir into the barrel into which has previously been put the milk of lime, some of the water and the diluted bluestone solution. Add enough water to make 40 gallons. The foregoing formula is based upon the American gallon. Some Canadians recommend, bluestone, 6 lbs.; lime, 6 lbs.; and Paris green, 6 ozs. Experts do not precisely agree upon these spraying formulas, but one will not go far astray in following either of the above.

Spray pumps, with special attachments for potato and mustard spraying, may now be purchased, and no farm is complete without one. It is a far more important implement than the self-binder. A man can hire his grain cut, but everybody should have his own pump. Using a borrowed pump, or one that has been loaned to a careless neighbor, is too much of a trial on Christian patience. A spray pump will be more than paid for, in many cases, by the increased and improved potato crop the first year.

POULTRY.

A Mysterious Chicken Disease.

A few days ago I happened at a farm where the chickens were dying from no apparent cause. They looked to me like fowls overrun by lice, but when I suggested this, the owner assured me that they were not lousy. I was not satisfied, for I have frequently seen lousy chickens in coops which the owners were sure were free from lice. I picked up one that was drooping and too listless to get out of the way. Upon examination I found that it was having the vitality sapped out of it by a variety of louse which is much more slender and active than the common gray louse. When the feathers are parted these lively fellows immediately make for cover, and unless one parts the feathers rapidly, moving the hand on a line along the fowl's body, so as to follow them up faster than they can run, they will keep out of sight, and leave the impression that there are none there.

To defend his fowls from the ravages of lice, a poultry-keeper must learn the habits and tricks of these pests. The common gray louse is easy to discover, as it is slow in its movements, and usually is found upon the head or under the wings. It is a common mistake to suppose that when an examination of head and wings reveals no lice that the bird is free from them. But there are several other kinds of lice. One sort is more commonly found under the throat than anywhere else. There are others that do not collect in any one place. Another kind of louse which is almost sure to escape those who do not look closely is the louse which lives upon the feathers, not on the bird's body. It is as hard on the fowls as any other kind, for it kills the feathers, and either consumes them or causes

them to fall out. This keeps the fowl constantly producing new feathers as long as it has vitality enough to do so, and when its vitality becomes run down it becomes ragged looking and partly naked. This keeps a hen in a constant state of moult, which makes her unable to lay and breaks down her constitution.

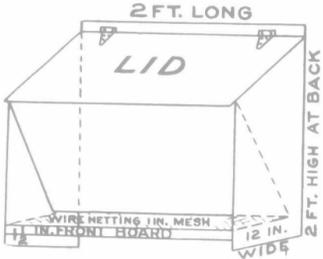
In warm weather, red mites are usually discovered running about the roosts and nests, but when it is too chilly to be out with comfort they keep under cover in the day time and swarm out to pester the fowls at night. If you ever spent a night in a little town where there was but one poorly-kept hotel, and the bedbugs woke you up just as you got to sleep, and new swarms came out to take the place of those you killed, you know how your chickens spend the night if there are red mites in your henhouse. If you remember how much you felt like work in the morning, you know how much the hen feels like hunting for the necessary articles to put into the eggs you expect her to lay.

A good poultry raiser must be an expert louse-hunter, and he must not blame his hens for not laying, nor get out of sorts because his young chicks die, if he does not learn to spot the wily louse wherever it puts in its appearance.

W. I. T.

Hopper for Feeding Chickens.

At your request I am sending you drawing of feed hopper for feeding hens or growing chicks. It is especially valuable for feeding chickens on free range. It will hold over one bushel feed, which should consist of wheat screenings and cracked corn, and the chickens are allowed to help themselves. It is necessary to



have wire netting—one-inch mesh will answer—to cover front opening, or chicks are apt to waste feed on the ground. A division can be put in to feed beef scrap, which is important, unless chickens have free range where they can find plenty of bugs and insects. It requires about 13 feet of lumber to make one, and it can be made in a few minutes by anyone at all handy with tools. A soap box can be easily converted into a smaller-sized one, which will answer the purpose.

Brant Co., Ont.

J. W. CLARK.

THE FARM BULLETIN.

A co-operative fruit-shipping association has been organized in the district of Oshawa, Ont., with Elmer Lick as secretary.

Members of Ontario Farmers' Institutes are requested to watch for local announcements regarding annual meetings and seed meetings to be held in June.

Mr. Percy A. Campbell, a graduate of the New Hampshire Agricultural College, and a post-graduate student in the Animal Husbandry Department at the Iowa Agricultural College, has recently been elected to the position of Assistant Professor of Agriculture and Animal Husbandry in the University of Maine.

Foot-and-mouth disease seems to have secured permanent footing in Argentina, consequently free hides would place live stock of the United States in jeopardy. Recent cable advices reported the issue of a decree by the Argentine Government prohibiting the export of cattle, sheep and pigs from the Republic. The reason the order was issued was another outbreak of foot-and-mouth disease.

French laws, says the Live-stock World, wisely provide that every land-owner who possesses mountain slopes is obliged to reforest them if denuded. If he neglects or refuses to do this, the Government has the right to take that part of his land and replant it for the good of the community. The results have been good, for the timber trade has been regulated, the water supplies from springs made more regular, and the damage less.

The construction of additional metallic lines by the Bell Telephone Company of Canada has just been completed between Toronto and Brockville, and between Toronto and Ottawa. This will greatly facilitate telephone connections from Montreal and Ottawa to Toronto and points west. The rearrangement of circuits rendered necessary by the construction of these lines will also greatly improve the service between intermediate points.

Canadian National Record Board Constitution.

A meeting of the National Record Board was held in Toronto on Tuesday, May 15th. The following are the members of the Record Committee appointed:—Chairman, Robert Miller, Stouffville; heavy horses, Wm. Smith, Columbus; light horses, Robert Beith, Bowmanville; beef cattle, A. W. Smith, Maple Lodge; dairy cattle, Robert Ness, Howick, Que.; sheep, J. M. Gardhouse, Weston; swine, J. E. Brethour, Burford.

The following constitution was adopted, with the exception of clause 3, which was left to the Record Committee to redraft, so as to allow for a larger representation if thought wise after consultation with the Dominion Department of Agriculture.

CONSTITUTION NATIONAL RECORD BOARD AND THE RECORD COMMITTEE.

1. The National Record Board is organized in accordance with subsection (g) of section 5 of the "Act Respecting the Incorporation of Live-stock Record Associations."

2. The Board shall be composed of representatives of each affiliated Record Association, appointed by the directors of said associations at the close of the annual meetings each year.

(a) An affiliated Record Association is one which, by agreement with the Dominion Department of Agriculture, has arranged to have Section 14 of the Act respecting the incorporation of live-stock record associations take effect in so far as the said association is concerned.

3. Each affiliated record association shall be entitled to appoint in the manner described in section 2, to represent the association on the National Record Board, two persons for one hundred members or under, and one additional person for each subsequent five hundred members. The previous year's membership shall be the basis of calculation.

4. A meeting of the Record Board shall be held as early as possible after the appointment of the representatives to the Board by the various affiliated Record Associations, at a date to be decided by the Record Committee. At least ten days' notice shall be given of the meeting of the Record Board. Said notice shall consist of a printed or written notice, mailed by the Secretary to each member whose name and address have been supplied by the Secretaries of the affiliated Record Associations, in accordance with section 15.

5. Business at meeting of Record Board: 1. A Chairman shall be appointed. 2. There shall be presented a report of the Record Committee for the preceding year. 3. (a) The Record Committee shall be appointed. Suggestions may be made regarding the keeping of the records, and such other matters as the Record Committee may refer to the Board, may be dealt with. (b) The Record Committee shall consist of the Chairman and six other members of the Record Board, one each to represent the following classes: Heavy horses, light horses, beef cattle, dairy cattle, sheep and swine. The members of the committee shall remain in office until their successors are appointed.

6. A special meeting of the Board may be called by the Record Committee by giving fifteen days' notice in the manner described in section 4, except that the notice shall define the object for which the meeting is called.

7. Seven persons shall constitute a quorum at the meeting of the Board.

8. Duties of the Record Committee: (1) The Record Committee shall carry out the rules and regulations adopted by the various affiliated Record Associations regarding the records in which they are interested; and shall be responsible for proper work in the record office.

(2) They shall make such office rules as may be deemed necessary to define the duties of officials and to properly carry out the rules and regulations of the various Record Associations, and where one official is employed to do work for more than one association they shall work out an equitable proportion for each association to pay towards the salary of said official, according to the number of registrations received. They shall make a requisition each year to each Record Association, giving an estimate of the amount to be paid monthly by each association during the current year. Said amounts, however, shall be finally adjusted at the end of the year, in accordance with the amount of work done for each association in the record office. They shall see that sufficient help, accommodation and supplies are provided to properly carry on the work.

(3) They shall also appoint an official, to be known as the accountant, who shall also be the chief clerk in the record office. They shall fix the salaries of officials doing work for more than one association, and when officials are employed to do the work of one association only, shall make such recommendations as may be deemed necessary. They shall make an agreement with each official in the record office covering the matter of salary, duties to be performed, and term of office.

(4) They shall suspend or discharge any official for improper conduct, and in case of suspension, or vacancy from other causes, they shall make temporary arrangements for continuing the work, and shall immediately report same to the association or associations for final action.

(5) A Secretary-Treasurer shall be appointed, who shall remain in office during the pleasure of the committee.

(6) a. They shall issue a monthly statement to each member of the Record Board, and to the Secretary of each affiliated Record Association, giving the following information duly audited regarding each record: (1)

Number of animals recorded; (2) number of transfers recorded; (3) number of duplicate certificates issued; (4) amount of money received and placed to the credit of each association.

b. They shall also in January of each year prepare a report of the work of the record office during the preceding year, which shall include a statement in detail duly audited, regarding receipts on account of all registration and membership fees placed to the credit of each affiliated Record Association, and shall also include a financial statement, showing receipts from various Record Associations paid to the Record Committee, for salaries and expenses of the record office; and also the disbursements paid out of these receipts; also a statement showing final adjustments in accordance with the number of registrations for each association. A copy of this report shall be supplied each member of the Record Board, and to the Secretary of each affiliated Record Association, and copies shall also be supplied for the members of the affiliated Record Associations at their annual meetings.

(7) They shall also prepare a requisition for the Dominion Department of Agriculture as to the requirements of the records for each year, and any grant given by the Dominion Department shall be used by them in accordance with the requisition prepared, and according to such instructions as may be given from time to time by the Department of Agriculture.

(8) They shall assist any of the associations in obtaining prices for printing of volumes of records, and also assist in establishing records for breeds of live stock not at present recorded in Canada, and do such other work as they may consider in the interests of the Board of the National Live-stock Records.

(9) Instructions from Record Associations to officials in the record office shall be given through the Record Committee, in order that the Committee may be properly held responsible for the work.

(10) All money received at the record office shall be immediately deposited to the credit of the association to which it belongs, in a chartered bank to be arranged for by the committee, and said money shall be under the control of said association only, and withdrawals shall be made by cheque signed as said association may direct.

(11) They shall appoint annually an auditor, or auditors, to audit the books of the record office and of the Treasurer, and to make such statements as may be required.

(12) They shall adopt such by-laws and regulations as may be expedient and not inconsistent with the constitution.

9. Four members shall form a quorum at a meeting of the Record Committee.

10. Meetings of the committee shall be called by the Chairman. Notices shall be mailed by the Secretary to each member of the committee at least five days previous to the date of each meeting.

11. It shall be the duty of the Chairman to preside at all meetings of the board and of the committee; to decide all questions of order, and to render such other services as the board or committee may require.

12. It shall be the duty of the Secretary to attend all meetings of the Record Board and of the Record Committee; to keep correct minutes of the same; to conduct all correspondence; to issue all press and other reports, and prepare reports for publication. He shall have the power of managing director, acting under the control and with the approval of the committee.

13. It shall be the duty of the Treasurer to receive and forthwith deposit in a chartered bank, authorized by the committee, all moneys placed in his hands as Treasurer of the Record Committee, and shall pay all accounts passed by the Chairman by cheque, countersigned by the Chairman. In the absence of either or both the Chairman and the Treasurer, cheque shall be signed as the committee may direct. All accounts paid must be submitted to the committee at the first meeting held afterwards. The Treasurer, as required, shall furnish a bond from some guarantee company, approved by the committee, and for such sum as the committee may decide.

14. A bond from some guarantee company, approved by the committee, shall be furnished by the Accountant for the faithful discharge of his duties, and for such sum as the committee may decide.

15. The Secretary of each affiliated Record Association shall, immediately after their appointment, notify the Secretary of the Record Committee in writing of the names and addresses of the representatives appointed to act on the Record Board for said association; and shall also supply the Secretary of the Record Committee with a certified statement, giving the number of members of said association for the previous year.

16. At the meeting of the Record Board the Secretary shall submit a list of the representatives, together with the association which each one represents; said list shall be in accordance with the notices received from the Secretary of each Record Association. Only those properly authenticated as above shall have the privilege of taking part in the meeting or voting on any question which may be submitted to the meeting.

17. A copy of any suggested addition or amendment to the constitution shall be sent to the Secretary in writing at least sixty days prior to the date of meeting of the board at which it will be voted on. A copy of the proposed addition or amendment shall be sent by the Secretary to each known member of the board, to

his address as furnished by the Secretary of the Association which he is elected to represent.

18. Any addition or amendment to the constitution shall require a two-thirds vote of the members present to pass.

Ontario's May Crop Bulletin.

The Ontario Department of Agriculture's May Crop Bulletin:

Fall Wheat.—The remarkably open winter, affording little or no covering of snow most of the time, and changes of temperature varying from extremely mild

than for several years. In various quarters a number of old plum trees are reported as having succumbed, but opinion was expressed that the severe winters of the two or three years immediately preceding was the cause. Except in a few localities in the Lake Erie counties, peaches appear to have sustained but little injury. There has been a generous amount of blossoming on nearly all classes of orchard trees, and should heavy rains keep off during the period of "setting" a large fruit crop may be looked for. Complaints of the presence of San Jose scale, the oyster-shell bark-louse and black knot are made, and orchardists will have to continue the good fight against them if the best results are to be had.

Live Stock.—The open winter appears to have favored live stock. There was sufficient provender of all kinds, except roots (many of the turnips rotted), although the backward spring caused an outlook for a raid upon surplus fodder. Horses came through the winter in splendid condition, except where troubled with a light form of distemper, and the cool, dry weather kept them in good condition during spring work. More mares have been bred of late than formerly, and while some speak of an unusual mortality among colts, the general tone of the reports are favorable in this regard. Owing to the high prices prevailing for horses they are commanded better care and closer attention. Cattle are described as being rather thin, but healthy. Several correspondents claim that this class of live stock was turned out upon the grass this season before there was a good bite for them. Sheep are now more into favor, and are giving good satisfaction. They would be much more largely kept but for the dog nuisance. Lambs are coming in good and strong, to quote a correspondent. Swine are kept in large numbers, and have wintered well, but there are reports of heavy mortality among spring litters, a large number of young pigs dying when about a month old. But for the fact that many farmers have lost confidence in the stability of the market, the output of hogs would be immensely increased. Most of the fat cattle have been disposed of, but a considerable number of store cattle are on the grass for July and September delivery. Several correspondents claim that there will be left only a sufficient number of cattle on hand for butchers' needs, looking to the future.

Spring Seeding.—Except in the more eastern counties along the St. Lawrence, seeding was well advanced, and in many cases completed, by the middle of May. The seed bed was generally in excellent condition, and although growth has been slow, the general opinion was expressed that the "catch" would turn out to be first-class. The acreage of spring grains is estimated to be fully up to the average, with an enlarged area of oats and peas. In the Essex district an increased acreage of tobacco is also expected.

Farm Labor.—The quality and cost, and not the quantity of labor, is the great question facing the Ontario farmer to-day. The exodus of native sons to the Canadian West and to New Ontario has drained the older parts of the Province of a large number of skilled agricultural workmen, and while the tide of immigration has brought in many to take their place, few of the newcomers prove to be up to the mark from a Canadian standpoint. However, some of them are reported to be "making good," and a more hopeful tone regarding the promise of raw labor is observed in the remarks of correspondents. Rates of wages continue high; in fact, many report that farmers cannot pay such wages and succeed. Enlarged implements and the use of more horses in the field work help some out of the difficulty. Domestic servants are, if possible, harder to secure than ever before.

Fair Dates for 1906.

Winnipeg Horse Show	May 23-25
Brantford Horse Show	May 24-26
Galt, Ontario, Horse Show	May 31-June 1
Toronto Open-air Horse Show	July 2
Inter-Western Exhibition, Calgary	July 10-12
Winnipeg-Industrial Exhibition	July 23-28
Brandon Exhibition	July 31-Aug. 3
Cobourg Horse Show	Aug. 14-16
Canadian National, Toronto	Aug. 27-Sept. 6
St. John, N. B.	Sept. 1-7
Canada Central, Ottawa	Sept. 7-15
Western Fair, London	Sept. 7-15
Sussex, N. B.	Sept. 7-15
New York State, Syracuse	Sept. 10-14
Michigan West, Grand Rapids	Sept. 10-15
Chatham, N. B.	Sept. 10-14
Dominion Exhibition, Halifax, N.S.	Sept. 14-21
Prince Edward Island Agr. and Industrial Exhibition	Sept. 20-Oct. 5
Ontario Winter Fair, Guelph	October 8-12
	Dec. 10-15



An Argument for the Silo.

Photo taken April 26th.

conditions to intense cold, led growers of fall wheat to fear the outcome. The cold, dry and generally backward spring was also unfavorable to the crop. However, the general situation in the third week of May may be described as being better than was expected, although reports vary greatly in describing the condition of the fields. High lands did well, compared with flat or low-lying places, and rich, sharp, well-drained soils also prospered. Fields sown early did much better than those got in later, and wheat sown on sod was markedly ahead of that grown on stubble land. A considerable area at scattered points has been plowed up and resown to other crops, but in many cases barley will be drilled into the "patchy" spots. The presence of the wireworm was pointed out by a number of correspondents, but no serious injury was reported from that or other insects. The most favorable reports, relatively, regarding fall wheat come from Lake Erie and Lake Ontario counties.

Clover.—Like fall wheat, clover suffered from lack of



T. G. Raynor.

Ontario Representative of Seed Commissioner's Branch, Department of Agriculture, Ottawa.

protection of snow during the winter, and much of the crop was heaved, resulting in considerable loss. Low-lying spots were also badly winter-killed, and some had to be plowed up. Old fields showed most injury, the young clover coming through in remarkably good form. Notwithstanding the many complaints of poor fields, there are nearly as many favorable accounts of a splendid showing. In fact, the two winter crops of clover and fall wheat never have called forth more varied reports as to prospects, correspondents in the same localities widely differing as to the condition of both.

Fruit.—Winter losses of orchard trees are smaller

Agricultural Legislation in Ontario, 1906.

The past session of the Ontario Legislature will go down to history as the most fruitful in important legislation of any session on record. Its duration was exceeded by that of 1904. That session lasted for 103 days, while this year the time which elapsed between the meeting of the Legislature and prorogation was 88 days. Not only has the amount of constructive legislation put through never been equalled in any one session, but it has probably never been equalled in any one Legislature. The following is a synopsis of the more important enactments which directly affect the agricultural portion of the community:

AGRICULTURAL SOCIETIES.

As foreshadowed in our columns a year ago, the re-organization of the entire agricultural societies system has been provided for. The old Agriculture and Arts Act, which formerly controlled these and other agricultural and horticultural organizations, has been divided into three separate Acts. One of these relates to agricultural societies alone. From the time this Act goes into operation, in January, 1907, the distinction between township and district societies will no longer exist. Each society will take its name from the name of the place where its headquarters is situated and its exhibition held. The method of dividing the grant is entirely changed, and the \$70,000 voted by the Legislature for agricultural societies will be apportioned in accordance with the amount of money expended by each society during the previous year for agricultural purposes. This, in the meaning of the Act, will include prizes for agricultural products, expenditure for seed fairs, crop and good farms competitions, plowing matches, the holding of spring horse shows, the importation of pure-bred stock, the destruction of noxious weeds and pernicious insects. On the amount expended for such objects the grant will be based, but the running expenses of a society, officers' salaries, payments for special attractions, will not be included. In New Ontario the grants will be on the basis of double those in the organized counties. Horse-racing, other than trials of speed, is prohibited. Not only may officers permitting horse-racing and persons participating in it be fined as before, but in the event of a fine being imposed, the society will be debarred from receiving a grant for the following year. As was the case under the old Act, circuses and acrobatic performances are permitted if properly regulated by the society, but with respect to gambling and games of chance, the new Act provides that "the officers of any society shall prevent all immoral or indecent shows and all kinds of gambling and all games of chance," and the Act specifies what is meant by these games. No society will be permitted to sell intoxicants on the fair grounds, under a penalty of forfeiting its grant. The framers of this Act believe that it will work for the gradual elimination of weak societies and the strengthening of those that are of real service to agriculture.

HORTICULTURAL SOCIETIES.

By the Act respecting Horticultural Societies, any relationship that may have existed between agricultural and horticultural societies will no longer continue, and horticultural societies will hereafter be in a class by themselves. The measure provides for their organization in cities, towns and incorporated villages. Instead of sharing with the township in the division of the grant, the sum of \$8,000 is set apart to be divided among these societies in strict accordance with the amount expended for horticultural purposes. This Act comes into force at the same time as the one respecting agricultural societies.

AGRICULTURAL ASSOCIATIONS.

The Act respecting Agricultural Associations provides for the continuance of all organizations recognized in the Agriculture and Arts Act, including the Ontario Vegetable-growers' Association, which was organized a year ago. So far as the horse-breeding industry is concerned, this Act makes an important departure, by providing for the organization of the Ontario Horse-breeders' Association, which association will be restricted to breeders only. The Canadian Horse-breeders' Association changes its name to the Canadian Horsemen's Association, and will comprise, as at present, a number of local associations of horsemen who are interested in show work. These associations formulate their own constitutions, subject to the approval of the Minister of Agriculture. This Act provides for the organization of an Advisory Board on Live Stock, to advise with the Minister on matters relating to the industry. It is thought that under the machinery provided the various associations will be brought into a somewhat closer relationship with the Department than has been the case heretofore. The Act goes into operation at once.

ONTARIO AGRICULTURAL COLLEGE ADVISORY BOARD.

By an amendment to the Act respecting the Ontario Agricultural College, it is provided that the members of this board shall consist of the Deputy-Minister of Agriculture, who shall act as chairman; the President of the College; three graduates or associates of the College; and two practical farmers who are not graduates. Under the old Act this board was composed of not more than seven practical farmers, and no provision was made for the representation of the graduates and associates of the College.

SANITARY INSPECTION OF CHEESE AND BUTTER FACTORIES.

The amendment to the Act to prevent fraud in the

manufacture of cheese and butter provides for the appointment of sanitary inspectors, as asked for by the Dairymen's Associations. These inspectors are to be under the direct supervision of the Department of Agriculture, and they will not be in any way connected with the instructors in dairying. The Act also provides that all cheese factories and creameries shall be kept in a clean and sanitary condition, and that the patrons of factories must take precaution to properly cleanse and keep in a sanitary condition all milk houses, milk stands, and the utensils used for the storing or carrying of milk and cream.

FOUL BROOD AMONG BEES.

The Act for the suppression of foul brood among bees provides for the repeal of the old Act and the substitution of the present measure. The only important change is that the appointment and direction of apiaary inspectors is taken out of the hands of the Ontario Beekeepers' Association, and will in future be under the control of the Minister of Agriculture. For carrying on the work more than one inspector may be provided, and the appointments are to be made by the Lieutenant-Governor-in-Council instead of by the association.

THE ACT TO REGULATE THE SPEED AND OPERATION OF MOTOR VEHICLES.

This measure provides that the maximum speed for such vehicles on country roads shall not be more than 15 miles an hour. Within the limits of a city, town or village the highest speed allowed is 10 miles per hour. When meeting or overtaking other vehicles on country roads, 7 miles only is permitted. In passing a rider or driver, the person operating the car shall signal his desire to pass, and give the driver an opportunity to turn out to a place of safety. He shall also stop on request, and remain stationary as long as may be necessary. In addition to this, it is provided that persons in charge of cars shall use every reasonable precaution not to frighten horses, and are prohibited from driving in a careless and reckless manner. Section 11 provides that in the case of an accident, the car shall return to the scene of the accident, and, upon request, the operator shall give his name and address in writing; also that of the owner and the number of the license. In the event of an offence against this section, arrest may be made without a warrant. In all cases of accident the onus is cast on the owner of the car. The Act also provides that the license number shall be displayed on the front of the car as well as on the back, and "headlights" are prohibited. The Act comes into force on July 1st.

THE COUNTY COUNCILS ACT.

This Act does away with the present system of representation by districts, and returns to the old system of municipality representation, with the modification that the unit of such representation will be 1,000 municipal voters for each reeve or deputy-reeve. The chief criticism of the existing system is that it creates a governing body for counties which is not in touch with the village, town and township councils, and is in some cases actually antagonistic. The new measure, which comes into force in 1907, will restore the continuity of policy which was such a valuable feature of the former Act.

THE ACT TO PROVIDE FOR THE EXEMPTION OF WOOD-LOTS FROM TAXATION.

This Act is designed to encourage the preservation of existing wood-lots and the planting of forest trees on the farms in the settled portions of the Province. It gives township councils the power to exempt from taxation farm woodland to the extent of one acre in ten of the farm area, but not more than 25 acres under any one owner. The conditions are that the land so exempted shall contain trees in suitable quantities of the varieties named in the Act. Grazing of the wood-lot is absolutely prohibited. Unless the conditions are complied with and the wood-lot properly looked after, the owner is liable to have all back taxes charged against him. Application for exemption must be made in writing to the township clerk on or before the first day of February of the year in which it is desired that the exemption shall take effect; whereupon it becomes the duty of the assessor to examine said wood-lot and determine whether it comes within the meaning of the Act.

AN ACT TO REGULATE THE WIDTH OF SLEIGH RUNNERS.

This Act repeals all previous legislation on the subject, and no restrictions now exist in regard to the manufacture or use of vehicles on runners.

AN ACT RESPECTING LOCAL MUNICIPAL TELEPHONE SYSTEMS.

This measure provides that the council of any municipality may, upon petition of persons desiring to become subscribers, provide by by-law a telephone system at the expense of the said subscribers.

OTHER MEASURES.

The Railway Taxation Bill will practically double the taxation of railways for Provincial and municipal purposes, but exception was taken during the debate because railways are taxed far below farm property, proportionately. "Farmer's Advocate" readers are already familiar with the main outlines of the Education and University Bills. The Patent Medicine Bill was withdrawn after a sharp debate, and the Pharmacy Act was amended so as to require the majority of the directors of a company to be certified chemists, one of whom must manage the drug department, and prevents

the use in the corporate title of the company of the name of any member who is not a druggist.

APPROPRIATIONS.

The following statement gives the total amount voted for agricultural purposes in Ontario for 1906:

Civil Government	\$ 25,128.00
Agricultural Societies Branch	95,020.00
Live-stock Branch	80,411.95
Farmers' Institutes' Branch	26,812.00
Dairy Branch	55,700.00
Fruit, Vegetables, Honey and Insects.....	19,800.00
Experimental Union	2,500.00
Bureau of Industries	5,500.00
Reports, Bulletins, etc.	22,000.00
Agricultural College, Macdonald Institute and Experimental Farm, services and maintenance	196,363.00

* Total

Capital Account

\$549,579.95

* Note.—From this amount the revenue for the year will be deducted. In 1905 the revenue amounted to \$88,162.50 from all sources.

The vote to agricultural societies is slightly increased this year, largely on account of the growing demand for expert judges.

In the Live-stock Branch there is an increase of \$1,725 to the Winter Fair at Guelph; \$500 for a live-stock advisory board; \$500 for grants to local poultry associations; \$4,000 towards the construction of a dairy building at the Ottawa Winter Fair; also some minor increases.

An increase of \$2,000 has been provided for Women's Institutes, on account of the increased number of institutes and of institute meetings. It is proposed to hold more judging classes in live stock in connection with Farmers' Institutes this year, and to extend the work to the newer portion of the Province.

In the grant for dairy work, \$2,500 is provided to cover the salaries and expenses of the two dairy inspectors who will be appointed. Their work will be to inspect the sanitary condition of cheese and butter factories, and will be entirely apart from the work of instruction in cheese and butter making, which is carried on by a staff of some thirty instructors.

Two thousand dollars has been provided as a start towards the establishment of an experimental fruit farm in the Niagara District, on the property donated to the Department by Mr. M. F. Rittenhouse.

The Ontario Experimental Union receives an additional grant of \$500, to enable it to extend its work.

For the Ontario Agricultural College and Experimental Farm somewhat larger votes have been taken this year, on account of the rapid growth of the institution. The increases in salaries are in accordance with the regular scale which was adopted by the Department a few years ago. The same applies to the Macdonald Institute and Hall. In the various departments of the farm the votes are practically the same as last year.

Under the head of capital account, \$10,000 is provided for building an addition to the chemical laboratory of the College. This is called for by the increased attendance of students from Macdonald Institute. For repairing and rebuilding greenhouses, \$5,000 is provided. For a building in which farm mechanics will be demonstrated, \$33,095 has been provided, together with \$4,000 for a glass house for the study of insects and botany from living instead of from dead specimens during the winter months, when the classes are in attendance. This building will also enable students to carry on practical work in grafting, pruning, planting, etc., and to study soil physics under natural conditions, which could not be done formerly.

For equipment for experiments in testing the baking qualities of flour, \$1,500 is provided.

Ontario Winter Fair Prize List.

The following additions and changes have been made in the prize-list of the Ontario Provincial Winter Fair, Guelph, December 10th to 14th, 1906, making a total increase of \$519:

SHEEP DEPARTMENT.

The class for grade sheep is made into two classes, one for long-wool grades and one for medium-wool grades. The prizes offered in each class will be the same as offered in the grade class for 1905, except that the sections for ewes will be struck out.

A section for three wethers is added to the classification for Hampshires and Suffolks, and for three ewes in the class for Dorset Horns.

In each pure-bred class there is a championship prize of \$10 offered. These changes will add to the prize-list \$189 in this department.

DAIRY DEPARTMENT.

A section was added to each class in the dairy department, making the classification as follows: "Under 3 years," "3 years and under 4," "4 years and over." This will mean an increase of \$270 in these classes.

POULTRY DEPARTMENT.

Classes have been added for Rhode Island Reds, Birchen Game Bantams, Birchen Games, three classes for Cavies, a class for Squabs, and additional classes for dressed poultry. This will add \$60 to the prize-list for poultry.

Notes from the O. A. C.

In a few weeks "the year of '06" will be widely scattered and engaged in many lines of life. Of the graduating class, which numbered twenty-eight, J. E. Bower will go to Ames College, Iowa, as Assistant Professor of Dairying; Jno. Chisholm has been for a year in charge of the farm at the State University, Columbus, Ohio, and will return to his position; K. G. MacKay and H. H. Colwell have joined the Student Volunteer Movement for Foreign Missions, and expect to be placed on the mission field in India; H. R. MacMillan will have charge of a Dominion forest survey party in the Riding Mountains Reserve, near Dauphin, Manitoba; F. C. Hart and J. R. Dickson will be members of this party; Douglas Weir has been offered the position of Assistant Professor of Botany in the State University of North Carolina, but will probably spend a year in post-graduate work at Cornell University; Jno. Bracken and H. A. Craig have joined the staff of the Dept. of Agriculture at Ottawa; G. G. White will, during the summer, do some inspection work for the Ontario Dept. of Agriculture, in connection with the tobacco industry, and in October will enter Cornell University for post-graduate work; J. A. Clark will return to his farm in Prince Edward Island; Jno. Craig is a young Scotchman who came to the College as a graduate of Edinburgh University, and though he has now completed his course at this institution, college education has not taken him away from the farm. He has for several years owned and operated a large farm in Saskatchewan, and will now resume his operations in wheat-growing. It has sometimes been stated that but few of the O. A. C. graduates return to the farm. The chief reason for this is that the graduates are often drawn from the ranks of such of the second-year men as have not farms to return to. At the close of the first two years of the course most of the students who have the opportunity return to their home farms. Those who go on are men who have not sufficient capital to purchase farms, and who believe that the best use they can make of what capital they possess is to secure an education, and then for a time accept some professional position, but if they have farms they gladly return to them.

Live-stock Judging at Institutes--Farmers' Clubs.

In connection with the announcement of the list of the annual meetings of Ontario Farmers' Institutes, most of which are to be held next month, and which it is hoped may be attended by a large representation of members from various districts of each riding, Superintendent of Institutes, G. A. Putnam, says that live-stock judging classes will form an important feature of the Institute meetings during the coming winter, and it is to be hoped that the places in which meetings are to be held will be chosen with this feature of the work in view. By placing loose boards or planks in the halls, and covering the same with straw, chaff or shavings for the horses, cattle, pigs or sheep to walk and stand on, a great many of the places in which meetings are usually held can be utilized for judging classes. If you cannot attend the annual meeting, send a request to the secretary that such a class be held in your locality, provided you will become responsible for the necessary accommodation. The work of the coming winter will be made as practical as possible and illustrated and demonstrated wherever possible.

It was intimated to the officers early last fall that it would be well for them to make an effort to establish local Farmers' Institute Clubs at those points where members of the Institute would likely take advantage of the same, for the purpose of discussing from time to time articles appearing in the reports sent out by the Department, and in the agricultural papers, as well as to have their members prepare papers and addresses

upon various agricultural topics. A number of these clubs have been formed, and the reports received from time to time are very encouraging, so much so that the Department has no hesitation in recommending that those connected with Institute work put forth an extra effort to form such clubs. Suggested rules and regulations are given below:

(1) The organization of a Farmers' Club may take place at a regularly called Farmers' Institute meeting, or at a meeting called for the special purpose. At least two weeks' notice of a specially-called meeting must be given in the local papers or by poster; and all members shall be constituted members of the Farmers' Institute for the riding by paying the annual fee of 25 cents; said fee, with name and address, to be sent to the Secretary of the riding Institute. By the consent of the district executive, five or ten cents per member may be retained for local purposes. Only members will be allowed to hold office or have a vote in elections. All farmers will be made welcome to meetings and have a voice in discussions.

(2) Those in attendance at the organization meeting should appoint a President, Vice-President, Secretary-Treasurer, and a committee of four or more. The committee should consist of about an equal number of old and young men. At each meeting one of the committee should drop out and be replaced by one elected by the meeting.

(3) The President shall preside at all meetings; in his absence the Vice-President; in the absence of both, the members in attendance shall choose a chairman from among themselves (a member of the committee preferred).

(4) The committee shall arrange for the hour and place of each meeting, subjects to be discussed, speakers, etc. It would be well to have subjects to be taken up from time to time approved of by the meeting.

(5) Any expense incurred in providing a suitable place of meeting shall be covered by a collection; or, preferably, an additional fee, in case the proportion of regular fees retained does not cover expenditure.

(6) The proceedings of each meeting shall be recorded by the secretary, and a report of membership and other items of interest sent to the Secretary of the riding Institute at least every three months.

(7) No subject shall be presented at a club meeting, or discussion allowed, of a political or sectarian nature.

(8) It would be well to make provision at some of the meetings, if not all, for recitation or music, to occupy a limited portion of time.

Live-stock Importation.

An Ottawa despatch says: The following new customs regulations have been adopted—A settler may bring into Canada, free of duty, live stock for the farm on the following basis: If he has actually owned such live stock abroad for at least six months before his removal to Canada, and has brought them into Canada within one year after his first arrival, viz., if horses, only 16; if cattle, only 16; if sheep, only 160; if swine, only 160. If horses, cattle, sheep and swine are brought in together, or part of each, the same proportions as above are to be observed. Duty is to be paid on live stock in excess of the number above provided for.

Man and Family Contract Glanders from Horses.

A despatch last week from Morden, Man., stated that a farmer named Fred Hall had contracted glanders from horses which he had been treating for the disease some weeks ago, and died suffering great agony. His wife and a neighbor who attended him have also taken sick, and it was believed they would develop the disease. Rigid quarantine has been established, and the residence was to be burned. The incident should serve as a wholesome example of the communicability of this disease from horses to human beings.

To Prevent Fraud in the Hay Trade.

Mr. A. M. Beauparlant, M.P., has introduced into the Dominion Parliament an Act for the prevention of fraud in the hay trade, to be called "The Hay Act, 1906." It provides that every person who presses hay for trade shall attach to each bale or bundle of hay pressed, or shall print thereon, a label on which is marked distinctly and indelibly:—(a) The initials of the christian name, the full surname and the address in full of such person; (b) the weight of such bale or bundle; (c) an indication of the quality of the hay, in one of the following four marks, namely:—"Choice," for hay of that quality—that is to say, of a specially faultless quality; "No. 1," for hay of a first grade; "No. 2," for hay of a second grade; "No. 3," for hay of a third grade. Such label may be a piece of leather, strong canvas, hard wood or tin, having engraved or printed on it, or otherwise showing, the initials, name, address and indication of the quality and weight, and attached to the bale or bundle by means of a wire passed through or around the said bale or bundle, or by any other means guaranteeing a like solidity. No person who presses such hay shall allow anything else than hay or other grasses, products of the same soil, to be put into such bale or bundle. No such hay shall be so pressed that the exterior gives a false impression of the interior of such bale or bundle. No shipper who is a dealer in hay shall forward any consignment of hay, the bales or bundles of which do not bear a label as above described. Any person who, by himself, or through the agency of another person, violates any of the provisions of this Act, shall for each offence, upon summary conviction, be liable to a fine not exceeding ten dollars, together with the costs of the prosecution, and, in default of payment of such fine and costs, shall be liable to imprisonment, with or without hard labor, for a term not exceeding one month, unless such fine and costs are sooner paid.

Unless radically amended, the bill is not likely to receive more than its first reading this session.

To Let Opinion Form re Embargo.

Earl Carrington, replying to a resolution in the British House of Lords, said the Government did not intend to bring in any bill altering the embargo on Canadian cattle this session, and, further, that there was no possibility of the private members' bill proceeding farther. Recognizing the magnitude of the interests involved, the Government thought it best to allow public opinion to form itself. He paid tribute to the chivalrous manner in which Canada had dealt with the matter.

New Zealand International Show.

An international exhibition, in which the nations of the world are invited to participate, will be held at Hagley Park, Christchurch, Canterbury, New Zealand, from November, 1906, to March, 1907. The Canadian Government will erect a special building, with 10,000 feet of square space for Canadian manufactures, in which trade can be developed with New Zealand. The Government bears the expense unless the goods are to be returned to Canada instead of being sold there.

Encouraging Orchard Prospects in Northumberland County.

Mr. P. J. Carey, Dominion Fruit Inspector, writing from Lake Ontario District, says that there is every prospect of a large crop of all kinds of fruit this year, although growth is very slow. In Northumberland County there is a decided improvement in the care of orchards, directly traceable, of course, to the large returns which were netted by the orchardists last year. Dealers report that more spraying material has been sold up to date for the first spraying than for the whole season of 1905. Many new orchards are being planted along the line.

MARKETS.

Toronto

LIVE STOCK.

Receipts of cattle at the City and Junction markets have been liberal—4,143 all told, but 2,234 fewer than for the corresponding week a year ago.

Trade has been fair, but prices are tending downwards.

Exporters—Prime, well-finished shipping cattle sold at \$4.85 to \$5.00 per cwt.; medium, \$4.70 to \$4.80; the bulk sold at about \$4.75 to \$4.90; export bulls sold at \$3.50 to \$4.

Butchers—Prices are lower. Choice picked lots of heifers sold at \$4.60 to \$4.75; loads of good, \$4.40 to \$4.55; medium, \$4.15 to \$4.30; common mixed loads of cows and unfinished steers, \$3.75 to \$4; cows at \$3 to \$4 per cwt.

Feeders and Stockers—While prices for fat cattle have declined, the best grades of feeders and stockers have remained about steady. Enterprising farmers at every market are buying loads of steers that are brought on the market as exporters at prices ranging from \$4.50 to \$4.75, and some picked lots at \$4.80 to \$4.90 per cwt. This looks risky, considering the foreign markets. Light

feeders, 900 to 1,000 lbs., sell at \$4 to \$4.40; stockers, \$3 to \$3.80.

Milch Cows—The demand for milch cows has improved this week, owing to two dealers from Montreal being on the market. The demand was greater than the supply. Prices for good to choice cows ranged from \$45 to \$60 each. Common to medium sold at \$30 to \$40 each.

Veal Calves—Large numbers of calves have been offered at each market. Prices have been steady at \$3 to \$6 per cwt., the bulk going at \$4 to \$5 per cwt. Choice new-milk-fed calves are scarce. One of this class, weighing 225 lbs., sold at \$7 per cwt., on Tuesday last.

Sheep and Lambs—Receipts have been light. Prices firm at \$5 to \$5.25, and \$5.50 for export ewes; bucks, \$3.75 to \$4 per cwt.; yearling lambs, \$7 to \$7.50 per cwt.; spring lambs, \$3 to \$6.50 each.

Hogs—The packers have tried again to get hog prices down, and have again failed. On Monday, the Davies Packing Co., who had been quoting \$7 per cwt., at Toronto market, fed and watered, advanced to \$7.20 per cwt. Drivers report that farmers are loth to part with hogs under \$7 per cwt. at their nearest railway station.

Horses—The demand for work and delivery horses, as well as saddle and

carriage, seems to be as great as ever. At a sale last week at the Canadian Horse Exchange, upwards of 180 horses were reported as having changed hands, the sale being one of the most successful held. A large number of buyers have been in attendance from all over the Province and some from the State of Michigan. The prices quoted by Burns & Sheppard, of the Repository, remain unchanged as follows: Single roadsters, 15 to 16 hands, \$125 to \$160; single cobs and carriage horses, 15 to 16.1 hands, \$125 to \$175; matched pairs and carriage horses, 15 to 16.1 hands, \$350 to \$600; delivery horses, 1,100 to 1,200 lbs., \$140 to \$180; general-purpose and express horses, 1,200 to 1,350 lbs., \$165 to \$190; draft horses, 1,350 to 1,750 lbs., \$170 to \$225; serviceable second-hand workers, \$60 to \$75; serviceable second-hand drivers, \$50 to \$80 each. The sale of Shetland ponies last week, at the Repository, was a great success. Twenty-five ponies sold at \$70 to \$200 each, or an average of \$144 each.

COUNTRY PRODUCE.

Butter—Receipts continue large at steady prices. Creamery prints, 24c. to 23c.; solids, 19c. to 20c. Bary lb. rolls, 18c. to 19c.; large rolls, 16c. to 17c.; tubs, 17c. to 18c.; bakers' tubs, 14c. to 15c.

Cheese—New plentiful at 11½c. to 12c. for large; twins, 12c. to 12½c. Old scarce at 14c. to 14½c. for large, and 14½c. to 15c. for twins.

Eggs—Receipts fair, at 17c. for new-laid.

Poultry—Spring chickens are plentiful, but generally small and poor quality. Prices are easier at 30c. to 35c. per lb. Last year's chickens, 16c. to 17c. per lb.; fat hens, 12c. to 14c. per lb. Turkeys, 14c. to 16c. per lb.

Potatoes—Prices firm at 90c. to 95c. per bag by the car, on track at Toronto for Eastern; Ontario potatoes, 80c. to 85c.

Baled Hay Car lots No. 1 timothy, \$9.50 to \$10, on track; No. 2 at \$7 to \$7.50, on track, at Toronto.

Straw Baled, in car lots, at Toronto, \$5 to \$6.

Beans—Prices easier at \$1.75 to \$1.80 for hand-picked; prime, \$1.50 to \$1.60 per bushel.

Honey—Prices unchanged at \$1.25 to \$2 per dozen for combs; 8c. to 9c. per lb. for strained.

BREADSTUFFS.

Flour Ontario, 90 per cent. pat nts, \$3.15 bid for export; Manitoba, 90 per cent. patents, \$4.10, at Toronto; Hungarian, special brands, \$4.50.

THE CANADIAN BANK OF COMMERCE

Paid-up Capital, \$10,000,000. Reserve Fund, \$4,500,000

HEAD OFFICE, TORONTO

B. E. WALKER, General Manager ALEX. LAIRD, Asst. Gen'l Manager

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THE FARM BULLETIN.

Canadian National Record Board Constitution	889
Ontario's May Crop Bulletin; Fair Dates for 1906 ..	890
Agricultural Legislation in Ontario, 1906; Ontario Winter Fair Prize List ..	891
Notes from the O. A. C.; Live-stock Judging at Institutes—Farmers' Clubs; Live-stock Importation; Man and Family Contract Glanders from Horses; To Prevent Fraud in the Hay Trade; To Let Opinion Form re Embargo; New Zealand International Show; Encouraging Orchard Prospects in Northumberland County.	892
The Budget Speech; Quebec Veterinarians ..	902
Farmers' and Women's Institute Meetings ..	903
Special Seed and Weed Meetings.....	904
Some Ideas for a Western University.	905
Progress Canadian National Records.	909
A Notable Importation of Ayrshires.	911
Notes on the Ruddington Sale	911

MARKETS ..	892
HOME MAGAZINE ..	894 to 901

QUESTIONS AND ANSWERS.

Miscellaneous.	
Liability of stock-holders; bait for trout fishing; a humped-back calf; expropriation by railroad; misrepresentation of horse; inversion of the rectum; turkey eggs under hens; lightning rods on windmill—furnace chimney; foundation for basement—mill ashes; cement blocks for sifo—spraying young trees—veterinary enquiries ..	902
Grazing in Denmark—points in milking; "Government standard seed"; oxen in Alberta ..	908
A patent right; waterway causing trouble; permanent pasture for hill-sides ..	910

The editor of a paper in Richmond tells of the assignment given to a young woman in the employ of that journal to cover the wedding of the daughter of a well-known citizen.

The "society editor" was prevented by sickness from attending the ceremony, and so was obliged to make the best she could of a second-hand account of the festivities.

Early in the morning after the wedding, the young woman repaired to the home of the bride's parents. To the darkey who opened the door, she said: "I have called to get some of the details of the wedding."

An expression of intense regret came to the dusky countenance of the servant.

"Ise awful sorry, miss!" she exclaimed, "but dey is all gone. You oughter come last night. De company eat up every scrap!"

Restless Nature.

Nothing in nature is absolutely permanent. Changes are going on slowly, but steadily, every moment, parts of the earth being elevated above the sea, parts sinking below it, the ocean wearing away the coast in one place and building it out in another, and so on to infinity.

Bran—Firm, \$21 in buyers' sacks, on track, at Toronto.

Wheat—Ontario fall, red and white, 82c. bid, outside shipping points; No. 2 mixed, 83c., sellers outside; Goose, No. 2 offered at 75c. Manitoba No. 1 northern offered at 85½c. at Point Edward; No. 2 northern, 83c. at Owen Sound.

Peas—80c. bid, at outside points. Oats—No. 2 white offered at 37c., outside, or 39c., on track, Toronto; No. 2 mixed, 36c. bid, at outside points.

Corn—No. 3 American yellow, 53c. bid, on track, Toronto. Buckwheat—50c. bid, 51c. asked, at outside points.

Seeds—There is little doing in seeds, and prices are unchanged as follows: Red clover, fancy, \$7.80 to \$9.30 per bushel; alsike, extra fancy, \$7 to \$9 per bushel; alsike, No. 2, \$5.50 to \$6.50 per bushel; best alfalfa, \$16.50 per 100 lbs.; timothy, \$2 to \$2.40 per bushel.

HIDES AND TALLOW.

E. T. Carter & Co., wholesale dealers in wool, etc., have been paying: Inspected hides, No. 1 steers, 11c.; inspected hides, No. 2 steers, 10c.; inspected hides, No. 1 cows, 10½c.; inspected hides, No. 2 cows, 9½c.; country hides, flat, 9c. to 10½c.; calf skins, No. 1 selected, 14c.; dekins, each, 85c. to 95c.; sheep skins, \$1.60 to \$1.90; horse hides, \$3.25 to \$3.60; tallow, rendered, 4½c. to 5½c.; wool, unwashed, fleece, 16c. to 18c.; wool, washed, 25c.

FARMERS' MARKET.

Dressed Hogs—Prices firm at \$9.85 to \$10.10 per cwt.

Butter—Prices easy, but unchanged at 20c. to 25c. per lb., the latter price being for selected lots to special customers.

Eggs—Prices steady at 18c. to 20c. per doz. by the basket.

Potatoes—Prices firm at 75c. to 85c. per bag by the load from farmers' wagons.

Montreal.

Live Stock—English market stronger last week. Fair demand for freight; quotations, 35s. to Liverpool, Glasgow and Manchester, and 30s. to London. Local markets steady. Receipts of cattle fair, but few really choice. Sheep, lambs and calves rather scarce, but active competition for hogs. Cattle: 5c. to 5½c. for choice; good being 4½c. to 5c.; medium, 3½c. to 4½c., and common, 2½c. to 3½c. a lb. Sheep about steady at 4½c., and lambs, \$3 to \$5.50 each, calves ranging from \$2 to \$10. Hogs firm, at 7½c. to 7¾c. for selects.

Horses—Very scarce, market generally strengthened, and advanced about \$25 all round. Heavy-draft, weighing 1,500 to 1,700 lbs., \$250 to \$325 each, and light-draft, weighing 1,400 to 1,500 lbs., sell at \$200 to \$250 each. Express horses, weighing 1,100 to 1,300 each, now bring about \$150 to \$225, while choice saddle or driving animals range all the way from \$350 to \$500, and old broken-down animals at \$75 to \$125.

Dressed Hogs—Choice fresh abattoir-dressed quoted at 10c. to 10½c. per lb., and demand good.

Hides—Market firm at the recent advance. Quality of the offerings now pretty fair, and the demand from all quarters active. Supply fairly liberal, and prices 10c. per lb. for No. 3 hides, 11c. for No. 2, and 12c. for No. 1. Tanners paying dealers ½c. advance on these figures. Sheep and lamb skins are increasing in number, but prices still remain at \$1.15 to \$1.20 each, clips and lamb skins being 10c. to 15c. each. Horse hides not in demand, prices, however, being \$2 for No. 1, each, and \$1.50 to No. 2. Tallow, 1½c. to 2½c. per lb. for rough, and 4½c. for rendered.

Butter—Dealers seem to have given up predicting the market. English advices indicate firmness; country boards show evidence of steadiness. Creamery men apparently have no difficulty in realizing 19½c. for choice, fresh creamery, country points. Merchants here have difficulty in realizing more than that. General idea of quotations here is 19½c. to 19¾c. for choicest Township creamery, though a few are holding for more.

Cheese—Market shows considerable strength; orders coming from the other side. Shipments have been large so far, in excess of those for the corresponding period last year, and almost everything

which has been received here has been shipped away. Recent cables from England state stocks of old cheese are exhausted, and price for new goods higher. Dealers here are quoting 11½c. to 11¾c. for the best Quebec makes, and 11½c. to 11¾c. for best Ontarios. Quite a lot of the receipts are costing more than those figures. Many in the trade seem to be of the opinion that even higher prices may yet be paid before the make here enlarges sufficiently to fill up the wants of buyers in England.

Eggs—Very firm, and there is no indication of a coming decline. Some dealers are now quitting packing, but a number of others are just beginning, having put off in the expectation of seeing lower prices. The demand is quite as active as ever. Transactions are occurring in a wholesale way, at 16½c. for straight-gathered stock, though some sales are higher.

Potatoes—Slight advance in prices, owing to increased scarcity of choice stock and to a demand developed from several outside points. Choice white stock, 70c. per 90 lbs., on track, in carloads; delivered into store, 75c. to 80c.

Grain—Wheat has been fluctuating considerably, and prices have been ruling rather above our last quotations. No. 1 northern, Manitoba, 89c. per bushel, store, Ontario white winter, 87c. Oats have been firm for a long time, and recently there has been a further advance. No. 2, store, 42½c.; No. 3, 41½c. to 42c., and No. 4, 41c. Stock scarcer, and demand good.

Hay—Firmer and higher. Carloads, here, \$9.50 to \$10 per ton for No. 1; \$8.50 to \$9 for No. 2, and \$7.50 to \$8 for clover and clover-mixed.

Flour—Demand fairly good of late, and prices advanced. No. 2 Manitoba patents, \$4.20 per bbl.; first patents, \$4.70.

Seeds—Good late demand for timothy, which has advanced 50c., at \$4.50 to \$6.50 per cwt., here; alsike, \$14 to \$16.50; red clover, \$14.50 to \$17.

Buffalo.

Cattle—Prime steers, \$5.35 to \$5.75; shipping, \$4.75 to \$5.40; butchers', \$4.50 to \$5.25.

Veals—\$4.50 to \$6.75. Hogs—Heavy and mixed, \$6.75; Yorkers and pigs, \$6.65 to \$6.75; roughs, \$5.90 to \$6; stags, \$4.25 to \$4.75; dairies, \$6.40 to \$6.65.

Sheep and Lambs—Lambs, \$5.50 to \$6.85, a few at \$6.85; yearlings, \$6 to \$6.40; wethers, \$6 to \$6.25; ewes, \$5.25 to \$5.50; sheep, mixed, \$3 to \$5.75.

Chicago.

Cattle—Common to prime steers, \$4 to \$6.30; cows, \$3.25 to \$5; heifers, \$2.75 to \$5.35; bulls, \$3.25 to \$4.25; calves, \$2.75 to \$6.75; stockers and feeders, \$2.75 to \$5.

Hogs—Choice to prime, heavy, \$6.40 to \$6.55; medium to good, heavy, \$6.35 to \$6.50; butchers' weights, \$6.40 to \$6.55; good to choice, heavy, mixed, \$6.35 to \$6.50; packers, \$6 to \$6.40.

Sheep and Lambs—Sheep, \$5 to \$6.25; yearlings, \$5.80 to \$6.10; shorn lambs, \$5.50 to \$6.75.

Cheese Board Prices.

Peterboro'.—At the first sale of cheese on the Peterboro' board for 1906, 26 factories boarded 1,371 cheese, all colored, 11½c. highest price; 8 factories sold at this price, the remainder at 11½c.

Kingston.—Five hundred and ninety colored and 595 white boarded. All sold at 11 11-16c.

Stirling.—Seven hundred and fifty offered; 240 sold at 11½c. Balance at 11 7-16c.

Napanee.—Seventeen hundred and eighty boxes boarded, 965 colored and 815 white; sales, 1,600 at 11½c.

Ottawa.—Five hundred and seventy-eight white and 254 colored boarded; 268 white and 95 colored sold at 11½c.; balance, excepting 64 boxes, sold at 11½c.

Iroquois.—Offered 735 colored and 50 white; all sold at 11½c.

Brantford.—Offerings, 1,120; sales, 1,065—60 at 11 1-16c., 130 at 11½c., 255 at 11 3-16c., 120 at 11¾c., 500 at 11½c.

Huntington, Que.—Eight factories boarded 194 boxes colored; all sold at 11½c.; six factories boarded 174 white; sold at 12 5-16c.

Twelve factories boarded 327 packages salted butter; all sold at 21½c. to 21¾c.

three factories boarded 130 packages of fresh butter; all sold at 21½c. Kemptville.—Twelve cents offered for white cheese, and 11c. for colored. South Finch.—One thousand and twenty boarded, 200 colored and balance white. Price offered 11 15-16c. for white, and 11½c. for colored.

British Cattle Markets.

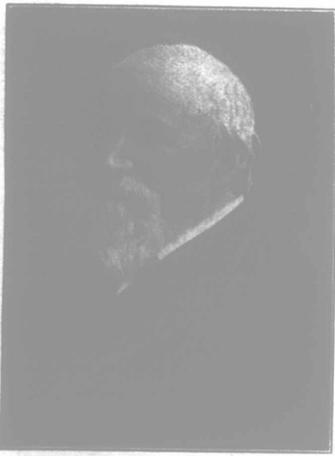
London.—Cattle are quoted at 10½c. to 11½c. per lb.; refrigerator beef, 8c. to 8½c. per lb.; sheep, dressed, 14c. to 15c. per lb.; lambs, 16c., dressed weight.

Contents of this Issue.

ILLUSTRATIONS.	
A Typical Suffolk Stallion ..	882
Slaughter ..	883
Linkfield Champion ..	884
King Christian of Denmark ..	885
First-prize Yorkshire Boar ..	886
Bertha ..	888
An Argument for the Silo ..	890
T. G. Raynor ..	890
EDITORIAL.	
Denatured Alcohol ..	881
Opportunity or Man? ..	881
A Course in Roadmaking at Guelph	881
HORSES.	
The Suffolk Horse ..	882
Use Brains with Feed ..	882
Economy of Horse Power ..	883
How and When to Water ..	883
The Winner of the King's Plate ..	883
LIVE STOCK.	
Stock Bloating on Clover ..	883
Expert Judges ..	883
Ventilation Better than Tuberculin	884
Dip the Lambs ..	884
Notes from Ireland ..	884
Good Breeding ..	885
THE FARM.	
Cause and Cure of Bad Roads ..	885
Endorse the Wind-power Mill ..	885
A Test Auger ..	885
Flax Fiber for Twine ..	885
Finger-boards at the Crossroads ..	885
How to Improve the Roads ..	885
Turnip Culture ..	886
Sow Clover ..	886
How to Anchor and How Not to Anchor Corner Fence Posts (illustrated) ..	886
Use of the Weeder ..	886
Our Western Letter ..	886
How the Seed Control Act Works for The Farmer ..	886
THE DAIRY.	
Facts About Moisture and Its Effect on Butter ..	887
Danish Butter Export Associations	888
Shelter the Calves ..	888
GARDEN AND ORCHARD.	
Oyster shell Bark-louse (illustrated)	888
Potato Spraying ..	888
POULTRY.	
A Mysterious Chicken Disease ..	889
Hopper for Feeding Chickens (illustrated) ..	889



Life, Literature and Education.



Robert Browning.

Robert Browning was born on the 7th of May, 1812, in an old house at Camberwell. The poet's father was a man of remarkably fine intellect and high principle, who had given up a lucrative position in the West Indies because of its connection with slavery, and had settled down in England in very moderate circumstances. Of Browning's mother, Carlyle says, "She is a true type of a Scottish gentlewoman"; and Kenyon declared, "Such as she have no need to go to heaven, because they make it wherever they are." And it is to the credit of Browning's heart and intellect that he could and did appreciate the fineness of his parents, and loved them most passionately all his life. When their deaths and that of his wife left him desolate, his only sister's sympathetic companionship was his solace for his great grief, and they remained together until the poet's death, in 1889. Four years later, "without one failing faculty, in her ninetyeth year, at the dim dawn of an Italian April day, the quiet summons to the better country came, and she might not tarry."

To be a lover of Browning's poetry, and to confess it, is too often to be credited with an unbalanced mind, or accused of posing. "He's too deep for me," the listeners say, and wag wise heads, as if that were sufficient condemnation. But the Browning lover, strong in the assurance of that worthiness of the object of his admiration, keeps the "noiseless tenor of his way," undisturbed by the criticisms delivered in the high-handed manner characteristic of those who know nothing about it.

It would be useless to deny that obscurity marks some of his work; but that may be said of other poets than Browning. He differs from them, in that lack of words hides his meaning, while with the others

a superabundance of language conceals thought just as effectually. The real cause of the mystifying lies more in the nimbleness of mind (if one may use such an expression) than in the difficulty of the language he employs. As a matter of fact, none of our poets, not even Wordsworth, uses more simple English. But so great is his mental activity, and so broad his sympathy that he takes the viewpoint of every character he depicts, and for the time being he is that character, feeling the emotions and thinking the thoughts of the person he is portraying. Jeanie Morison says of him: "The real difficulty lies in gaining the poet's standpoint; that done, all is simple; and this difficulty rises mainly from the subtlety and rapidity of his thought. There are many minds to whom Browning's poems must remain forever a sealed book, because of a certain subtle quality in his mind, and a faculty for fine-spun analogy that eludes their grasp; and there are many, also, who, though perhaps capable of understanding if once they attain to his standpoint, find the mental gymnastics necessary to follow the rapid transition of his fancy too arduous a task. The association of ideas in Browning's mind is so swift and so delicate that it requires a mind in some degree constituted like his own to be able to follow him."

There are but few of the great epochs in the progress of the human race which Browning has not illustrated by some vivid dramatic picture, representing in a single character the personality of the time. The grotesque mixture of piety, materialism, love of art and learning, and the license of the Renaissance period he has embodied in the "Bishop of St. Praxed's." In a series of poem pictures he shows us his beloved Italy—the great period of its art in "Andrea del Sarto," its ecclesiasticism in "Fra Lippo Lippi" and the "Bishop of St. Praxed's," its vanished brilliancy and love of passion in "A Toccata of Galuppi's" and "In a Gondola," its patriotic struggles in "An Italian in England." Another favorite field for poetic expression is the period when the influence of Christianity began to be felt, and, with his own peculiar power, he takes the reader back to that momentous time, and pictures the first movements of Christianity, not as we, looking backward, see it, but as it impressed itself upon the consciousness of the people of that time. With this purpose in view, he wrote "Cleopatra," "Death in the Desert," and "The Epistle of Karshish." He paints with a master touch the many phases of human existence: The strong and the weak, the base and the high, the steadfast and the vacillating, the evil and the good—he expresses the feelings and desires of them all, as truly as if he had in turn been all of them. And yet, through all the evil and suffering that he saw so clearly, and pictured so strongly, he ever kept the pure spirit of hope and sweet-minded optimism that could say:

"God's in His Heaven
All's right with the world."

Browning's message to the world was one of encouragement to high perseverance and lofty ideals. To him

the attainment was of secondary importance; the earnest desire to attain was of vital import; in his estimation "not failure but low aim was crime." This idea of a high standard which humanity strives for but fails to reach, is seen in almost every poem he wrote. For example, in "Andrea del Sarto":

"A man's reach must be beyond his grasp
Or what's a heaven for?"

and again, in "Rabbi Ben Ezra,"

"What I aspired to be
And was not, comforts me."

To one who has made no study of Browning, but who wishes to begin, the volume of his shorter poems will give the least difficulty and the most pleasure. The most common edition of his simpler pieces contains enough of his best work to breed in the student a love for the whole, and includes, "Andrea del Sarto," "Fra Lippo Lippi," "Cleopatra," "Saul," "By the Fireside," "A Grammarian's Funeral," "The Last Ride Together," "Evelyn Hope," "The Guardian Angel," "Abt Volger."

Foibles of Literary Men.

Many qualities which would be regarded as censurable, if possessed by ordinary men and women, are often regarded with a respect that is tinged with admiration when they are possessed by persons of genius.

There is scarcely an author or musician of note who has not been distinguished by some foible that has excited the amusement of his friends. In many instances these foibles afford an index to the character of their victim. Some are natural, while others would seem to be the result of some inexplicable affectation. Viewed in any light, however, all are interesting.

Keats liked red pepper on his toast.

Sardou imagines he has a perpetual cold.

Dickens was fond of wearing flashy jewelry.

Joaquin Miller nailed all his chairs to the wall.

Ernest Renan wore his finger nails abnormally long.

Walter Savage Landor threw the dishes around to relieve his mind.

Edgar Allan Poe slept with his cat. He was inordinately proud of his feet.

Daudet wore his eye-glasses when asleep. He did his best work when hungry.

Victor Hugo spoke little; his remarks usually were made in the form of questions.

Thackeray used to lift his hat whenever he passed the house in which he wrote Vanity Fair.

Thomas Wentworth Higginson possesses a singular power over wild birds, and can easily tame them.

Alexander Dumas, the younger, bought a new painting every time he had a new book published.

Edmund Clarence Stedman has his favorite cat sit in a high chair at the table every day at dinner.

Robert Louis Stevenson's favorite recreation was playing the flute, in order, as he said, to tune up his ideas.

Robert Browning could not sit still. With the constant shuffling of his feet holes were worn in the carpet.

Longfellow enjoyed walking only at sunrise or sunset, and he said his sublimest moods came upon him at these times.

Washington Irving never mentioned the name of his fiancee after her death, and if anybody else did so he immediately left the room.

Hawthorne always washed his hands before reading a letter from his wife. He delighted in poring over old advertisements in the newspaper files.

Thomas Babington Macaulay kept his closets crammed with elaborately-embroidered waistcoats, and the more gaudy they were, the better he liked them.

Disraeli wore corsets. The older he grew, the greater became his desire to dress like a young man. He had a pen stuck behind each ear when writing.

F. Marion Crawford carries his own stationery, pen and ink, and never writes with any other. He has written every word of every novel with the same penholder.

Bjornson kept his pockets full of the seeds of trees, scattering handfuls broadcast in his daily walks. He even tried to persuade his associates to do the same.

Darwin had no respect for books as books, and would cut a big volume in two, for convenience in handling, or he would tear out the leaves he required for reference.

Zola would pass whole weeks in the belief that he was an idiot. While in this state he wrote more than at any other time. He would never accept an invitation to dinner.

Oliver Wendell Holmes used to carry a horse-chestnut in one pocket and a potato in another, to ward off rheumatism. He had a great fondness for trees, and always sat under one when he could.

Voltaire, as a preliminary to his day's work, would sharpen an even dozen lead pencils. He would untie and retie his stock whenever an idea concerning his work particularly pleased him.

Count Tolstoi goes barefoot and hatless the year round. He is fond of French perfumes, and keeps his linen scented with sachet powder. There is always a flower on his desk as he writes. Although very rich, he wears the cheapest clothes he can buy.

A. Conan Doyle, even in the coldest weather, never wears an overcoat. When he gives an afternoon lecture he removes his vest and buttons his Prince-Albert coat close to his body. He is a golf enthusiast, and spends all the time possible on the links.

Bret Harte, when the inspiration was on him, would hire a cab for the night, and drive without stopping through the darkness until the struggle for ideas was over, and he grew calm enough to write. Nothing pleased him more than to be taken for an Englishman.

Language and Thought.

So intimate is the relation or inter-relation between language and thought, that it is a matter of debate whether thought can exist without language.

It is recorded that Polynesians define thinking as "speaking in the stomach." And Max Muller asserts, "Language and thought are inseparable. Words without thought are dead sounds; thoughts without words are nothing." Such are also the views expressed by Samuel Johnston, George Eliot, Ludwig Noire, and others. Thought and speech are related to each other, like mind and body. Thought is the soul, the life of language. Language is the body through which thought manifests itself. Words are thoughts incarnated. Language is more than the body or dress of thought; it is also its vehicle. This is the idea which G. P. Whipple intends to convey when he says, "A thought embodied and embraced in fit words, walks the earth a living being." Since thought possesses life, it seeks to diffuse and communicate itself, and finds expression in language. Thus, language is not merely an artificial or conventional form, but a natural and necessary medium for the manifestation and communication of thought.

"Thoughts are things," but as incorporeal things, or entities, they are more or less evanescent. The expression is not uncommon, "A happy thought struck me," or, "I had an original thought, but it has escaped me." Hence it is good to express our thoughts, provided they are good ones, to give them shape, substance and permanence.

The pleasure and profit accruing from the transfer and interchange of thought is beyond price. Hence the dignity and power, the vast importance of the press. In our short and busy lives, personal intercourse is necessarily restricted, but through literature, our intellectual and social acquaintance may be large, if we desire to make it so.

I appreciate the "F. A. & H. M." Literary Society, from both the intellectual and the social points of view. While promotive of the social spirit, the organization must assuredly prove a potent and far-reaching influence in the development of thought and expression.

Kent Co., Ont. W. J. WAY.

Another Character Sketch.

A CHEERFUL GIVER.

Our character sketch this time is one from real life, not one written to illustrate a type or to develop a theory—a very excellent use, all the same, to which the pen of fiction can be dedicated. The story, as it came to me, begins only with the last beautiful chapters of the life of this humble but saintly woman. Strength had come to her, as it has to so many others, through sorrow, but "her simple faith had enabled her to realize that the Lord had forgiven her the sins, the remembrance of which had once troubled her so sorely." Out of darkness had come light.

Now let me introduce to you our simple heroine, whose surroundings were those of a country village in rural England, not far from the sea-coast. Her name, a real one, was Mary Ann Davey. As to her personal appearance, picture to yourself a small-made, pretty old woman, neat and clean, dressed in the fashion of other days, with high, starched cap, blue-spotted apron and check "turn-over," in a room at once bed-chamber, sitting-room and kitchen. All the furniture is painted by her own hands, a bright blue, including a dresser, bought for sixpence, and adapted to its present use by her own clever old fingers. The walls are covered with pictures, one being of the Archbishop of Canterbury, the other of the Black Bishop of the Niger, while just under these pictures stands her missionary box, wonderful in shape, of her own making, and such a treasure to her that, when

it once went away from her to be emptied, she described herself as "fine and wist" without it. In that room she lived, almost a prisoner, for many years. Twice only in the last ten of her life was she able to get to church, and then she was brought down a steep hill in a wheelbarrow, wearing a bonnet given her thirty years before by a member of the Society of Friends.

Mary Ann's income was two shillings and sixpence a week, or 62½c. of our Canadian money. Not much, you may think, but she managed to make it cover her few needs, with occasional helps from kind friends. She drank no tea, coffee, nor cocoa; a cent's worth of milk contented her, with treacle, sugar, and occasionally a little bit of meat for broth. Her rent was paid for her, yet Mary Ann, more thrifty than most poor folk, tried to keep it in hand, in case her benefactor should die before herself, which actually occurred by a few months. "I am afraid I be getting all my good things in this life," she observed, when gifts of pork, milk and books came all in one day.

cial character was the building of a church at a small fishing town some twenty miles away. One day she said: "I've been thinking a good deal of what I should like to give to Mr. C.'s Church. I've ordained to give ten shillings." This she did, and later on earned eight shillings and sixpence more for the same purpose.

Nor was this poor woman's interest in people or things bounded by her alms. Her prayers were always part of her cheerful giving. Her prayers were part of her life. Sometimes persons would be merely alluded to in her presence, but arousing her solicitude for them. On the next visit, her informant would be asked: "How is that gentleman (or lady) you was telling me about? I've been praying for him ever since." At one time she prayed regularly at one o'clock for a poor man at Liverpool. The then Bishop of Truro had many of her prayers, and when she saw Canon C. for the last time, she said, with her poor, paralyzed mouth, "Tell him (the Bishop) I keep on, STEADY, praying for him."

to read of what some do suffer with their joints all set fast like, and crooked limbs, and can't feed themselves! But there, the Lord knows who to trust with them things."

Another time, speaking of some fresh infirmities, she exclaimed: "The Lord is gone to prepare a place for us, and He alone knows how much we take to prepare us." Mary Ann had often pictured to herself how her home-call would come. Sometimes she thought it would come suddenly, as a glad launching into eternity, but it came to her quite otherwise, days and weeks of unconsciousness preluding the happy Sunday in the glad spring-time when she passed away in a peaceful sleep, to be "Forever with the Lord," whom she had loved and served.

H. A. B.

Una and the Red Cross Knight.

By L. Campbell Taylor.

The scene is from Spencer's poem, St. George and Una lost in the Wood of Error.

"A gentle knight was pricking on the plain,
Yclad in mighty arms and silver shield,
Wherein old dints of deep wounds did remain
The cruel marks of many a bloody field.
And on his breast a bloody cross he bore
The dear remembrance of his dying Lord,
For whose sweet sake that glorious badge he bore.

A lovely lady rode him fair beside,
Upon a lowly ass more white than snow;
Yet she much whiter; but the same did hide
Under a veil, that whimpled was full low;
And over all a black stole she did throw,
As one that only mourned, so was she sad."

Then follow verses of sweetest beauty describing their wanderings:

"When, weening to return whence they did stray,
They cannot find the path which once was shown," etc.

The story as a story, the poem as a poem, and the lesson as a lesson, are equally worthy to be read and re-read by us all.
H. A. B.

A June Morning.

The robins and blackbirds awake me at dawn,
Out in the wet meadow beyond the green lawn.

For there they were holding a grand jubilee,
And no one had wakened to hear it but me.

The blue morning-glories were sprinkled with dew;
There were hundreds of spider webs wet with it, too.

And pussy-cat, out by the lilacs, I saw,
Was stopping to shake off the drops from her paw.

I dressed in the silence as still as a mouse,
And stole down the stairway and out of the house.

There, still in the dawning, the garden paths lay
Where yesterday evening we shouted at play.

By the borders of boxwood and under the trees
There was nothing astir, but the birds and the bees.

"If all the wide world had been made just for me,"
I thought, "what a wonderful thing it would be."

—Katharine Pyle.

Poet—"So you think I should get more fire into my verses." Editor—"My dear sir, quite the reverse!"



Una and the Red Cross Knight.

From painting by L. Campbell Taylor, R. A.

Poor as Mary Ann may be thought, she was a great giver. She had a plan for giving a penny out of every shilling to the Lord. "Once," she said, "no one came to ask for it, and it mounted up to half a crown. Thinks I, that's too much to give; people will be thinking I be better off than I be; but that was Satan tempting me to cheat the Lord, and I soon found him out, and gave the money."

But this was only part of her giving. Her missionary box contained over a pound (\$5) every year. She also gave to other needs. Once, when applied to by some outside of her own branch of Christ's Church, she found something to spare out of the little purse filled by the sale of things made by her, and sold especially for Christian work. "I don't give to they, nor to their church," said Mary Ann, "I gives to the Lord." Her last interest of a spe-

Mary Ann had a few favorite sayings by which her life was influenced. Amongst these was, "Freely ye have received, freely give," and, "Meet your troubles bravely, endure them patiently, and bear them meekly."

As she neared her end, the joy of departing and being with the Saviour whom she loved, was ever present with her: "I can't make out how it is you b'aint willing for me to go," she would say to her friend. "Don't you think 'tis almost unkind of you?"

Her last illness, paralysis, was a trial to her, especially what she called the incessant "chopping" of her mouth. She looked up from a book, one day, saying, "I've been reading that it must not be only resignation, but thankful resignation, and I don't think I be thankful for this mouth, though I do hope I be resigned to bear it, if it be the Lord's will." By-and-bye she added, "but

A Remarkable Invention.

Our readers will be interested in the keen, intellectual face that appears with this article, none the less, perhaps, when they know it to be that of a man who, unquestionably, has conferred a tremendous benefit upon the world, and marked the early part of the Twentieth Century with the discovery of a process which has been sought for many hundred years—Dr. Z. F. Vaughn, of Los Angeles, Cal.



Dr. Z. F. Vaughn, of Los Angeles.

By this process, which has recently been perfected, the ductile metals—gold, silver and copper—may be tempered to the hardness of steel, and, as a result, the danger of blood-poisoning in surgical operations will be reduced to a minimum.

The great drawback in the use of steel instruments has been the impossibility of obtaining a perfectly smooth edge. Moreover, steel is, to a certain extent, both porous and liable to rust, qualities which have rendered it far from perfect as a surgical agent. A gold or silver blade, on the other hand, is dense enough, is rust-proof, and cuts with a clean, even surface, instead of sawing its way through the flesh, as a steel one must. As a consequence, an incision made with a gold instrument heals more readily, and leaves no scar. The trouble hitherto has been that gold bends, and has been, therefore, utterly useless in the great majority of operations. The new invention will, however, do completely away with this difficulty.

Dr. Vaughn's name has been long known in medical and scientific circles, but his present accomplishment has been, practically, his life-work so far, as he has spent 18

years of experiment and research in attaining it. Already the news of his success has spread abroad like wildfire, and orders for surgical instruments have come to him from all parts of the United States and from Europe. Just before the earthquake he had received a request for twenty sets for the great German Hospital in San Francisco.

At the Vaughn factory, the specialty is, as yet, of course, surgical instruments; but the field opened in other lines for tempered gold, silver and copper is, of course, very extensive. Henceforth alloy will be looked upon as an adulteration rather than a necessity, while the uses for a rustless, practically unbreakable copper as a supplanter of steel, are obvious. In short, Dr. Vaughn's discovery is likely to prove of much more value to the world than that of the much-vaunted radium.



King Alfonso of Spain.

The Spanish Marriage.

Seldom has Spain blossomed out in such gala array as she has been steadily donning during the past week, in preparation for the nuptials of King Alfonso and Princess Ena of Battenberg, which will have taken place before this paper reaches our readers, at the Church of San Jeronimo, Madrid, on May 31st.

As early as May 24th the capital was gaily decorated, a superb arch spanning the avenue leading to the royal palace, while flags, Venetian masts and bunting showing the brilliant "burnt" orange of the Spanish colors were everywhere in evidence. Bands playing, the streets alive with soldiers and marines, arriving for the great demonstration—and, in the midst of it all, King Alfonso sets out to meet his bride at the frontier.

For a royal marriage in Spain is no simple affair that can be got rid of in a day or two. According to

Spanish etiquette, it is necessary that an exchange of signatures be made before the bride enters the kingdom, and after that an elaborate official programme ensues before the marriage ceremony itself can take place.

So Alfonso set out on the 24th of May, amid demonstrations of joy on every hand, for this marriage is very popular with the Spanish people. The Royal train has been described as a model of magnificence, while the Church of San Jeronimo has been richly decorated, and 2,500 electric lights scattered among the myriads of candelabra to furnish a blaze of light for the ceremony. Cardinal Sancho, Archbishop of Toledo, was chosen to perform the ceremony, and a choir of 200 voices was trained to supply the music.

Princess Ena is really a native of Scotland, as she was born at Balmoral in 1887, and was "christened" by a Presbyterian minister as "Victoria Eugenie Julia Ena." She is the only child of Princess Beatrice, youngest daughter of Queen Victoria. Her betrothal to King Alfonso was formally announced on Feb. 20th of this year, and subsequently in the Cathedral of San Sebastian, she renounced Protestantism, and became a Roman Catholic.

King Alfonso reached his twentieth birthday on May 27, but, being a king, he came of age at sixteen. The last Spanish king who found an English consort was Philip, who married Mary, daughter of Henry VIII., in 1554.

A Remarkable Choir.

An old farmer and his wife were attending church services one hot Sabbath day. The windows were open, and the noisy chorus of the crickets was distinctly audible. In due course, the choir sang an anthem, and the old man, a music-lover, listened enraptured. At its conclusion he turned to his wife, and whispered:

"Ain't that glorious and divine, Mirandy?"

"Yes," she answered, "and to think that they do it all with their hind legs."



Princess Ena of Battenberg.

The Quiet Hour.

Witnessing for Christ.

Whosoever, therefore, shall confess ME before men, him will I confess also before My Father Which is in heaven.

But whosoever shall deny ME before men, him will I also deny before My Father Which is in heaven.—St. Matt. x.: 32,33.

These are words of solemn warning—how do they affect us? We cannot help joining ourselves to one party or the other. If we are not plainly confessing Christ as our Master, we must be denying Him. It is so easy to accuse St. Peter of disloyalty and want of courage because he denied any connection with the despised Nazarene, but are we always bold and decided in our loyalty to Him ourselves? Have we never laughed at a joke or an amusing story of which we really disapproved, just because we were afraid of being considered over-strict? Are we ashamed to have regular family prayer—that wonderful help to family love and unity—because it is not considered exactly "the thing" in our circle? Do we give up our usual attendance at church or Sunday school when we have visitors who are inclined to ridicule that sort of thing? Are we ashamed to kneel or stand before our God in public or private prayer, when we find ourselves in the company of people who venture to approach Almighty God without any outward sign of reverence? Do we stand up boldly for our faith when it is attacked or slightly spoken of? In fact, have we always the courage of our convictions at home or abroad, from Monday to Saturday as well as on Sunday? If we often play the coward ourselves then we have no right to look down on another disciple for want of loyalty to Christ.

"If I saw Him the victim of priestly intrigue—

Of bigots that thirst for His life,
With a handful to help and a host to oppose—

A martyr to truth, and a prey to His foes,—

Would I take no part in the strife?

"Would I sit like a statue, demure and unmoved,

With Purity slain in the street,
With Truth on the cross, and with Innocence nailed,

And the Heart of my God by treason impaled—

And I in a coward's retreat?

"Ah, if He were here! Perhaps our cold hearts

Would then be as nerveless as now;
For the pestilent Pilates are ever the same—

E'er ready to falter, e'er shifting the blame,

In fawning e'er ready to bow."

"If He were here!" Well, is He not here? Does He not look at us sometimes as He looked at that other disciple who denied Him, when by word or look or silence we pretend that we own allegiance only to the world, and care nothing for the Name that is above every name? Does that loving look always bring us back to the side of a wronged Master, as it brought St. Peter? It is every Christian's duty to witness for Christ wherever he may be, using the marvellous power of personal influence for Him, first at home, then in the immediate neighborhood, reaching out steadily farther and farther by prayer, active work and sympathy "unto the uttermost part of the earth." But half-hearted, lukewarm disciples do more harm to the cause of Christ than any amount of outside opposition. These who have no enthusiasm for their Master do more to make people think there is no truth in Christianity than any in-

fidel, for a faith which evidently does not influence those who profess it must seem to outsiders a hollow sham and mockery—simply a fashionable pretence. Those who name the Name of Christ should have that Name written plainly on their foreheads, so that all the world can see Whose they are and Whom they serve—

"When soldiers take their sovereign's fee,
And swear his own to be,
The royal badge on forehead bold
They show to young and old.
Nor may we hide for fear or shame
The persecuted Name.
Only with downcast eyes we go
At thought of sin that God and Angels know!"

A Christian should be "saturated" with Christ, should feel the power of His Life thrilling along every vein and nerve.

It is a poor kind of religion that can be dropped in vacation time. An old guide once declared that he had a good chance to measure men, for they left their artificial life behind with their stone clothes, and only the real self came out to the woods. One party that came out for a fortnight's fishing gave him a pleasant surprise. They were all rich men, and had a jolly time every day, telling funny stories round the camp fire at night but "not a swear word, and not a story that wasn't all right." Along about ten o'clock, Mr. Crandall, he's a big banker or railroad man or something, he said to his son, "Phil, you know more Bible than any of us, just repeat a psalm before we go to bed." And the young fellow repeated the twenty-third psalm. Then the old gentleman said, "Now we can all repeat the twenty-third psalm." And they all sat together. "I'd heard it a good many times, but it never sounded quite the same as it did then. I learned it by heart hearing them say it, and used to say it with them, for that was what

they did every night. There was no preaching, you understand, they weren't preachers. They just sat around and had their good time, and then before they went to bed they did that same way every night, repeated a psalm, or one of them would read it by the camp fire, and then they would all say that psalm together, and then good-night. All day they had their fishing, and in the evening their fun. Well, when they went away I felt as if I had been among Christians, sure enough; and I've kept up the habit of saying that psalm every night. They made me feel, somehow, that I'd like to have more religion myself. I take it that a good test of having religion is to make men who see you want some like it." Men like that are respected by everybody, even by those who fancy they have no faith whatever in Christianity. They are so quietly consistent and so evidently believe in the Lord they profess to serve,—though they don't gush about their feelings or "talk religion" to every chance acquaintance. But let the subject come up naturally in the course of conversation, and no one can have a moment's doubt about the side they are on. A man like that will resent a slighting word about Christ as he would resent a word against his mother or wife. Such men are letting their light shine fearlessly, and they haven't the least idea how closely others are watching them, nor how strong is the silent influence of their loyal, consistent lives.

"We know not all the good we do,
The good, that like the silent dew,
Goes down and deep the roots between,
Or out, far reaching and unseen;
The good, unreckoned and untold,
And multiplied a hundred-fold,
We know not all the good we do,
Nor ever shall, until we view
The great eternal whole, and see
The secret of life's mystery:
Until, to full perfection grown,
We know as we ourselves are known."

What a grand thought it is that good influences go on spreading in ever-widening circles through all eternity. Even if you can only reach ten people primarily, and they can only reach ten in their turn, the good seed you have sown will go on increasing by hundreds, thousands and millions, until it reaches the uttermost part of the earth. But, as a matter of fact, people reach and influence for good or evil many more than they know. The great good done by Lord Shaftesbury was the result of seed sown by a faithful servant when he was a little child. It is said that the wonderful system of kindergarten teaching sprang from an ignorant Alsatian servant-girl's determination to do some good to little children. She got the little ones together, and taught them to sing, with gestures, games, etc., little thinking what a great institution she was starting. Dr. Guthrie once went in

to an inn for refreshment and saw there a picture of John Pounds, the cobbler, of Portsmouth, teaching poor, ragged children on the streets. That one glimpse of a picture is said to have made him the founder of ragged schools. But if some lives are "lives of Christ," if there are some people in whose presence our eyes are drawn irresistibly up to the Sun they so faithfully reflect, there are other well-meaning people whose attraction is like the attraction of gravitation, drawing our thoughts down to earth. A business man, who considered himself a Christian, but was always too tired to go to church on Sunday morning, once sat reading his paper after his wife had started off to the service as usual. Suddenly he heard a small voice in the next room say: "When you're a man will you go to church like mother or stay at home like father?" "I won't do either," said another voice. "I'll

have my horses and be on the road on Sundays." The father sprang to his feet as he realized that his easy indifference about the religion he professed would encourage his boys to drift into a life of reckless self-indulgence and sin. He was not far behind his wife when the church was reached, and after that the whole family went regularly to church. If you do believe in Christ, and are trying to serve Him, why should you try to hide the fact? It is a thing to glory in, not anything to be ashamed of. Besides, it is useless to try to hide it, for no one can long keep secret his motives and ambitions. And the attempt to hide one's colors is a very poor-spirited proceeding. It has been compared to the plan of trying to "lie low all the war-time, and come out when the palms are being distributed." It is not very manly to hide one's sentiments until the battle is over, and then come out

strongly on the winning side. That was the plan adopted by the men of Succoth and Penuel when Gideon asked them to supply his army with bread. They were by no means certain that he would conquer the Midianites, and they were careful not to commit themselves until it seemed perfectly safe to do so. The result of this cautious "hedging" was severe and well-deserved punishment; and those who are afraid to come out boldly on the side of Christ now are warned that He also will disown them when He returns in His glorious Majesty to judge the world:—Be not thou, therefore, ashamed of the testimony of our Lord.

"All His Saints their foes overcame
By confession of His Name:
If with them we would appear,
We must first be like them here."

HOPE.

Children's Corner.

Farming in the City.

In Toronto there is a large club for boys called the Broadview Boys' Institute. Besides a club-house, and a place for playing football, baseball and lacrosse, these boys have a field (quite a small field, a country boy would think), which they call a Township, and it is divided into farms of different sizes, the largest being ten by forty feet. The paths which run between these little farms are called side-lines and concessions, and must be kept clear of weeds by the farmer whose land is next them. But there are some plots which do not belong to anyone in particular, and any boy who wants a farm for the summer must work one hour a month at this common ground, instead of paying rent.

This is what one of these city farmers writes about his preparations for work:

"In the fall of the year we dig up our farms, and haul manure and cover them. We then put it up in hills, running across our farms from side to side, and leave it all winter this way. In the spring, we dig it up again with a fork, and break down the hills, break the lumps with a hoe, and rake it over, get it level, and then Mr. Atkinson, the Superintendent, gives us five packages of seeds each, and if we want any more we have to buy them ourselves."

In May, the farmers have a meeting, and elect a reeve, a constable, a weed-inspector, and other officers; and everyone is bound to obey their laws, or else he will lose his farm. I have also heard of a boy losing his farm because he didn't keep the weeds down. As the farms are so close together, they have to be very strict about this, for the weeds would soon spread. Once a week the boys have to go to a lecture on "Agriculture and Nature Study." They can do what they like with their crops, and some of them sell their vegetables, as if they were market-gardeners.

If you go up Broadview Avenue on the car, any fine summer afternoon, you will see the farmers working away with their hoes and rakes, trying to make their farms look well for the Fall Fair in September, when the best farmers are to get prizes. There is also a Harvest Home dinner in the autumn, for which all the food comes off the farms (I suppose they must get a little meat from the butcher's, though, unless they are all vegetarians).

Now, I wonder if any of you country boys have ever run a farm all by yourselves? You see, you mustn't think that city boys know nothing about farming, even if they have never seen a threshing, or ridden on a hay rake.

RIDDLES.

1. There is a thing was three weeks old,
When Adam was no more;
This thing it was but four weeks old,
When Adam was fourscore.
2. Why is a king like a horse?
3. Why is a sugar-stick like a horse?
4. Where did the witch of Endor live?
5. Why is a nail fast in the wall like an old man?
6. What is the difference between the Prince of Wales, an orphan and an orang-outang?

ANSWERS.

1. The moon.
2. Because he has payers.
3. Because the more you lick it the faster it goes.
4. At Endor.
5. Because it is infirm.
6. One is heir-apparent, one has never a parent, the other is a hairy parent.

The Elephant and His School.

The great white elephant left the show—
He said he was too refined;
The ways of a circus did not suit
His most superior mind.

"A creature as big and wise as I
Should be teaching school," said he;
"And all the animal little folk
My scholars they shall be."

So into an empty schoolhouse near
He marshalled them all one day;
'Twas in vacation time, and so
The children were all away).



Flowers o' May.

The kittens and puppies, the pigs and geese,
Were put to work with a will;
But the squirrel and fox to the platform went
Because they would not keep still.

And then he began to teach his school
The various things he knew;
"There's much not down in the books,"
said he,
"That you ought to know how to do."

And first he showed how to flap the ears,
But their ears were far too small;
And then he showed how to wave the trunk,
But they had no trunk at all.

The only thing that he taught his school
That the scholars accomplished well,
Was when he called to the peanut man,
And taught them the nuts to shell.

The elephant soon dismissed his school,
And packed up his trunk to go;
"For, after all, my talents," said he,
"Are best displayed in a show."
Ellen V. Talbot, in September St. Nicholas.

The Letter Box. About Rabbits.

I have been a silent reader of the Children's Corner for quite a while. I saw in it last week you wanted us to write about our pets, so I thought I would write about my rabbits. When they are born, they look like mice with no hair on, but they look like a little pug dog in the face. But as they grow older, they grow prettier. I feed them milk, or water, green grass (pulled), or clover, apples cut in small pieces, and very few oats. We have ours in the barn, but it is best to have them outside. We have eight little bunnies, and three old ones. We would have had about forty, but our dog or cat killed them. PAUL MERRITT (age 8).
Beamsville, Ont.

A Useful Pet.

I did not intend to write so soon again, but my brother was going to write about his rabbits, so I thought I would write about my dog. It was just a little pup when we got it, but it is nearly a year old now. It is the nicest dog we ever had. We are teaching him to chase the hens out of the flowers, and he will lead fine. We are going to teach him to draw our sleigh next winter. I think my pet is more useful than brother's rabbits, as the dog seems to know just what to do. I think if all our cousins would be kind to their pets and not hurt them, there wouldn't be a better pet in the country. My dog's name is Prim. I am sure a dog is a friend as well as a pet; everyone should be kind to all dumb animals. But I suppose some of our cousins couldn't keep pets very well if they lived in the city. I close, wishing "The Farmer's Advocate" every success.

MARGARET MERRITT (age 10).
Beamsville, Ontario.

As I have never written to "The Farmer's Advocate," I thought I would write. We enjoy your paper very much. I am not attending school just now, as we have not been able to get a teacher. Our teacher was taken sick just as school was to commence after Easter. I am in the Second Book. I am going to try for the Third class at summer holidays. I have a little sister ten months old. She knows just where her bonnet hangs, and when I go to get it she is pleased, for she likes to go to the barn. My brother, Lloyd, and I have a little pony four years old. In the summer we go after the cows on him, and ride him all over the farm. He is a Shetland pony, and is not much bigger than a large dog. VERA WILCOX (age 9).
Springford, Ont.

I have never written to "The Farmer's Advocate" before, although I have read and enjoyed the letters written by other girls. My father has taken your paper for about four years, and likes it very much. We live on the Gattineau Road, and from our windows we have a fine view of the river of that name. I go to school, a mile and a half from home. We have a fine teacher. I hope to get into the Junior Fourth next June. Wishing "The Farmer's Advocate" every success. MYRTLE HOPPER (age 10).
Chelsea, Que.

All letters intended for the Children's Corner must be addressed Cousin Dorothy, 52 Victor Ave., Toronto.

The Lane at Lang.

This is the Lane, that from the dusty road
Leads to wide pastures, and the singing shade
Of purple pines and heaven-pointing firs
Up to the green hill's mystic crowned top.
A rainbow path of blossoms; goldenrod,
The delicate laces of the caraway,
Primrose, and meadow pink, and, born of June,
Dried roses with the spice of cinnamon
Haunting their petals.
Here the south wind stirs
The hazel branch, or whispers to the birch,
Whose listening leaves gleam silver, in the sun
And tremble softly at his light caress;
Through warp of fern and many-fingered vine
The scarlet lily rears her haughty head,
Spurning the lowly yarrow at her feet
In vaunting pride. . . . And all the perfumed way
Thrills with the pulse of little lives—the bee
Seeking the clover's heart, the cricket's cry,
The shrill cicada in the cranned wall;
And, wing to wing, twin jewels set in gold—
The ruby's flame, the sapphire's glowing blue—
A humming-bird and vagrant butterfly
Brushing the milkweed's honey-flowered stalk.
Come, let us follow to the rainbow's end.
—Meribah Philbrick Abbott, in the Outlook.

Recipes.

Sand Hearts.—Two lbs. "Five Roses" flour, 2 lbs. sugar, 1 lb. butter, 3 eggs. Make into dough, roll out, and cut into heart-shape. Put in a pan, spread with beaten yolk of egg, and sprinkle with sugar and cinnamon.

Dolly-Varden Cake.—Two cups sugar, 2-3 cup butter, 1 cup sweet milk, 3 cups "Five Roses" flour, 3 eggs, ½ teaspoon soda, 1 teaspoon cream tartar. Flavor with lemon. Bake one-half of this in two pans. To the remainder, add 1 tablespoon molasses, 1 cup chopped raisins, ½ cup currants, and spices to taste. Bake this in two pans, and arrange the four as layer cake, with jelly between.

Billy Made a Guess at It.

Having arranged with his wife to make a long-promised call, a faithful husband arrived home in the afternoon only to find his better half out and no message left to explain her absence.

Finally the husband inquired of their trusted handy man.

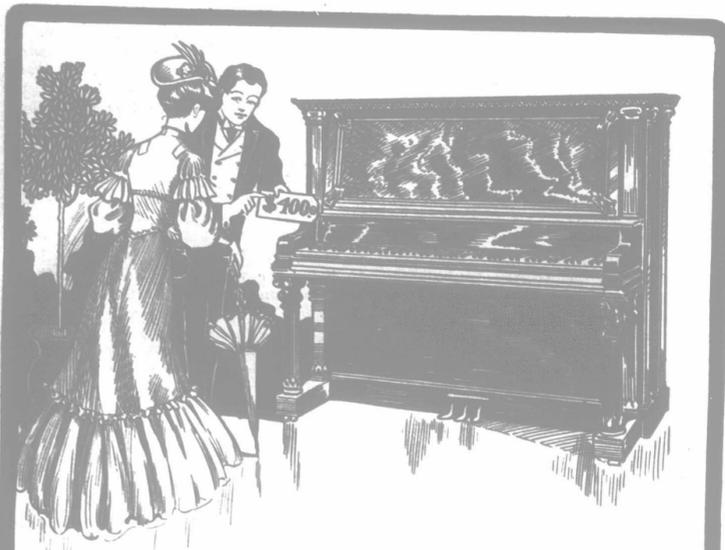
"Oh, Billy," he said, "can you tell me anything of my wife's whereabouts?"

"Well, I don't know, sir," said Billy respectfully, "but I suppose they're in the wash."

Bird Competition.

Will the cousins kindly remember that the bird competition closes punctually on June 15th? Send in your lists as soon as possible, please, to

COUSIN DOROTHY,
52 Victor Ave., Toronto.



The Ticket's Story

The ticket on a **Nordheimer Piano** tells a story of the lowest price possible consistent with high quality, and of a policy of giving no one a discount, and charging no one else a higher amount. Any lady has an equal chance with the best financier of the country. The Nordheimer is sold on our exclusive plan of the **One Price System**. Let us show you our ticketed instruments. **SPECIAL:** One beautiful 7½-octave piano for \$100. Several organs ranging from \$15 to \$55. Correspondence solicited.

Nordheimer's Limited
188 Dundas Street, London, Canada

THE TIME YOU WASTE

trying to make good bread and pastry from a cheap flour adds greatly to the cost of your loaf. It is a mistake to think that because a high-grade flour costs a few cents a bag more than an inferior one that it is dearer. "Five Roses" Flour makes more bread, and better bread, per bag, in less time, than any ordinary brands, and is, consequently, more economical.

LAKE OF THE WOODS MILLING CO., LIMITED.

Spruce Row Barred Rocks

ARE STILL LEADING THE VAN.

Have won at the **Ontario, Guelph**, in 1905, 2nd, 4th, 6th and 8th cocks; 2nd, 9th and 10th hens; 2nd pullet, and 8 specials, showing eight old birds and getting a mention on every one.

BERTRAM CHALLENGE TROPHY 3 years in succession, 1901, 1902, 1903, for the four best birds—cock, hen, cockerel and pullet. Also the silver medal for best male and three females for three years in succession, 1901, 1902, 1903, and all specials in the three years except three. This victory in the hottest competition at the Ontario Show places my stock at the head of their class in Canada.

AT TORONTO, September, 1905, 2nd cock, 2nd hen and 1st cockerel, and the Canadian Barred Plymouth Rock Club Silver Cup and bronze medal, and the American Barred Plymouth Rock Club Ribbon for best shape male.

At Toronto, birds bred and raised in Spruce Row Yards have won 1st cock three years in succession in 1902, 1903, 1904; 2nd in 1905; 1st cockerel three years in succession in 1903, 1904, 1905. The above winnings are not approached by any other breeder in Canada.

Stock for sale. Mated trios a specialty. Eggs \$3 for 15 or \$5 for 30.

I. K. MILLARD & SON, Dundas, Ont.

When Writing Advertisers Please Mention *The Farmer's Advocate*

About the House.

Vegetables.

(Continued.)

Following up our last rather superficial talk on vegetables, it may be interesting and instructive to note the following table of vegetable constituents as compiled chiefly by the U. S. Department of Agriculture:

resist disease or to work properly, will speedily reveal the result of such a deficiency. Green vegetables are good, necessary, as medicines—but must not be depended on too much as foods.

At a later date we shall try to deal with each vegetable more specifically, also with fruits.

	Water.	Proteid.	Fat.	Carbo- hydrates.	Fuel value per lb. Ash. Calories
Green beans (cooked)	93.7	1.1	0.1	3.8	1.3 95
Ripe kidney beans (cooked) ..	72.7	7.0	0.2	18.5	1.6 480
Green peas (cooked) ..	85.3	3.6	0.2	9.8	1.1 255
Shelled peas ..	74.6	7.0	0.5	16.9	1.0 465
Peanuts ..	9.2	25.8	38.6	24.4	2.0 2560
Potatoes ..	78.3	2.2	0.1	18.4	1.0 385
Cabbage ..	91.5	1.6	0.3	5.6	1.0 145
Tomatoes ..	94.3	0.9	0.4	3.9	0.5 105
Cauliflower ..	90.7	2.2	0.4	4.7	0.8 175
Spinach ..	90.6	2.5	0.5	3.8	1.7 120
Vegetable marrow ..	94.8	.06	0.2	2.6	0.5
Lettuce ..	94.1	1.4	0.4	2.6	1.0 105
Celery ..	93.4	1.4	0.1	3.3	0.9 85
Rhubarb ..	94.6	0.7	0.7	2.3	0.6 105
Cucumber ..	95.9	0.8	0.1	2.1	0.4 70
Asparagus ..	91.7	2.2	0.2	2.9	0.9 110

For comparison, the following may be given:

Lean beef ..	70.0	21.3	7.9	1.1 730
Milk ..	87.0	3.3	4.4	5.0	.7 325
Cheese ..	34.2	25.9	33.7	2.4	3.8 1950
Eggs ..	73.7	14.8	10.5	1.0 720

The term calorie will, perhaps, be new to some of our readers. It is the standard by which the heat value of foods is measured, and signifies simply the amount of heat required to raise 1 litre of water 1 degree centigrade, or, in other words, 1 pound of water 4 degrees Fahr. When you see the number of calories marked high, then, you may know that the foods yielding them—cheese, ripe beans, etc.—are especially valuable as heat (and energy) producers, and may well form a part of cool-weather diet, being correspondingly decreased in the hottest weather. The high value of peanuts will probably be a revelation to some people, who may, in consequence, be more ready henceforth to endorse the claims of peanut sandwiches as a valuable form of food. Bacon is not given in the list; but it may be here mentioned that its calorie value is nearly three times that of beef.

Now, we can't begin to tell all the combinations of foods to bring about a rational balance of food values in one or a score of articles. With the help of the above table, however, every thinking woman will be able to suggest combinations for herself. She will see that food low in proteid, carbohydrates and fats may be wisely combined with those rich in them—that butter and cream (both rich in proteid and fat) may be well added to such vegetables as potatoes and cabbage, which are poor in them, that there is good sense in dressing lettuce with cream or olive-oil dressing, and in the pretty recipe which calls for the filling of celery stalks with cream cheese—all this, of course, provided it is necessary to make such things nutritious. If, however, this is unnecessary, it is well to leave out such rich dressing. For instance, if there is pork for dinner (not a wise choice for summer, by the way, or for any other time, a great many would tell us), it would be very foolish to dish up cabbage dressed richly with butter or cream along with it. Too much proteid and fat might be as harmful as too little. We once heard a woman speak of having beefsteak, eggs, cheese and raisin pie all at one meal. With such a surfeit of nitrogenous food, it would be little wonder if her family, provided they partook of all of these, and were habituated to such fare, should speedily become confirmed dyspeptics.

Again, we may remark, the above table will show the foolishness of depending too much on vegetable foods for nutriment. The striking deficiency in proteid and fat is evident enough, and must be supplied in some way, if not by meat, by eggs, cheese, nuts, etc. Otherwise flabby flesh, a pasty color, inability to

TO WASH BLANKETS.

To wash blankets, use plenty of luke-warm soft water with pearline dissolved in it. Rinse in soft water of the same temperature, two or three times, if necessary, and hang out to dry. Always choose a warm sunshiny day for washing blankets, and never rub soap on them. If you use soap instead of pearline have it dissolved in the water, and see that it is "wool" soap, or, at least, some kind free from resin, which hardens the wool.

TO WASH LACE CURTAINS.

When you take down the curtains, shake and brush them free from dust. Dissolve a little washing soda in some clean soft water, and wash the curtains by rinsing them about in it; never rub them on a board. Rinse through several waters until perfectly clean; put them through a weak blue water (unless they are cream), starch, stretch and dry. The starch should be quite thin, and should have a tablespoonful of powdered borax dissolved in it. Lace curtains should always be dried outside, if possible, and on a bright, breezy day. Of course, the best way is to use curtain stretchers. If you have no stretchers, light quilting frames will do; or you may simply choose a clean grass plot, stretch your curtains all out evenly, and pin to the ground with non-rust hair pins.

TO WASH BED TICKS.

Ottawa Valley Journal gives the following method of cleaning feather-bed ticks: Baste two sheets together, leaving a small space, about half a yard, open. Open the same length of the feather tick, and baste about the same sized opening in the sheets. Shake all the feathers into the sheets, then wash the bed tick, and dry thoroughly. Put the feathers back through the opening in the same way.

PUTTING AWAY FURS.

If you haven't regular moth bags, get large, strong bags of fibre paper. Hang your furs out in the sunshine for a while, beat gently and brush thoroughly, then put them into the bags, with any feathers or other articles that you wish to keep safe, and tie the bags up so tightly that a moth simply cannot get in. If the furs were quite free from moth-eggs when put in, they will come out in perfect condition in the fall. Store woollens which cannot very well be put in bags in close boxes, lined with newspapers or tar paper, and fitted with a very tight lid. You may put a few moth balls in the boxes, if you choose, and paste a strip of paper all round the crack beneath the lid.

SOME USEFUL RECIPES.

Caramel Pudding.—Put 1 cup sugar in

\$15.00
Is our Magic Price
For Men's Suits
Made to Order



We take your order on this understanding: We guarantee our tailor-made suits to be the biggest values in Canada. We guarantee that you can't get equal quality and tailoring in your own town under \$5.00 to \$10.00 MORE. We send you samples of suitings, tape line and measurement

blanks FREE.

You may examine and try on the suit, and if there is any fault with fit, cloth or workmanship, DON'T TAKE IT. Suits and Overcoats, \$15, \$18 and \$25. Write to-day for free samples.

Royal Custom Tailors, Toronto, Ont.

Telephone Users

of the Bell Company's Lines at Chatham, London and near-by towns

will be glad to know that a Toll Office has been opened at Wardsville, Ont. The rates from this point to other stations on the line, for three minutes' conversation, are as follows:

From Wardsville to

Bothwell, 15c.; Chatham, 25c.; Glencoe, 15c.; London, 30c.; Melbourne, 15c.; Mount Brydges, 25c.; Thamesville, 15c.

Wedding Invitations, Wedding Announcements, Visiting Cards.

Latest styles. Latest type. Prompt attention to mail orders.

The London Printing & Litho. Co. 144 Carling St., London, Ont.



A housekeeper needs exercise for her body, reading for her mind, charity for her soul, and companionship for her heart. As ingredients are considered in a successful recipe, so must responsibility be measured with pleasure to make the dish of "Every-day Content."

DIAMOND DYES

Will Dye Any Article of Clothing from Feathers to Stockings.

The Only Package Dyes that Make Fast and Unfading Colors.

Feathers, ribbons, silk ties, dress silks, shirtwaists, dresses, costumes, capes, jackets and shawls can be dyed at home with Diamond Dyes so that they will look like new. Try a package of the Diamond Dyes, and see what a bright, beautiful, non-fading color it will make, with but little trouble.

Diamond Dyes are the greatest money savers of the age, as many a woman with one or two ten-cent packages of these dyes has dyed her old dress a lovely and fashionable color so as to save the expense of a new one. Partly-worn clothing can be made over for the little ones, and by dyeing it with Diamond Dyes no one would recognize that the dresses and suits were not new.

Diamond Dyes are adapted to many uses besides simply dyeing old clothing. Diamond Dyes give new life and usefulness to curtains, furniture coverings, draperies, carpets, etc. Beware of imitation and common package dyes; ask for the "Diamond," and see that you get them.

Send to Wells & Richardson Co., Limited, Montreal, P. Q., for New Direction Book, Card of Dyed Samples, and Verse Story, entitled, "The Long-johns' Trip to the Klondike." All sent FREE by mail.

a granite pan, and let brown on the stove. Pour on 2 cups sweet milk. When dissolved, stir in 2 beaten eggs, and 1 tablespoonful cornstarch moistened in a little milk. Serve warm or cold with cream.

Light Steam Pudding.—Cream together 1 cup sugar and 1/2 cup butter. Beat in 2 beaten eggs, 1 cup sweet cream. Add 1 teaspoon soda, and 2 teaspoons cream tartar, then beat in as quickly as possible enough flour to make a stiff batter. Steam 1 hour, and serve with cream and sugar, or with a thin lemon sauce.

Tapioca Pudding.—Soak a small cup of

tapioca over night in 1 pint new milk. In the morning, put in double boiler, adding a quart of milk. Let scald until tapioca is cooked; then stir in the beaten yolks of 3 eggs, and cook 8 minutes, stirring constantly. While still hot, stir in the beaten whites of the 3 eggs. When cold, flavor with lemon or vanilla.

Bread Pudding.—One pint crumbs, 1 quart milk, 1 cup sugar, yolks of 4 eggs, grated rind of 1 lemon, butter (size of an egg). Bake, and shortly before taking out, spread with jelly, and the whites of the eggs, beaten with the juice of the lemon and sugar to sweeten.



I am going to make a special request to the Ingle Nook members. A few issues ago, you will remember, "Bernice" asked for suggestions as to how to make a fall fair attractive and instructive. So far only a single answering letter has been received. Now, this question is too good a one, and too closely in touch with farm life, and a farm paper such as "The Farmer's Advocate," to be passed over so lightly. You are all interested, or should be, in your fall fair, and it lies in your power to make it a success or otherwise. Bernice is on the right track. Now, write this matter up for us, won't you? Tell about what YOU have done to make YOUR fair a success, or explain any wrinkle you may have thought of but have never carried out. The time to begin working for the fair is now, not two weeks before it comes off. Let us have a lively discussion of the question, please. DAME DURDEN. "Farmer's Advocate," London, Ont.

Helponabit's "Pioneer" Contribution.

Dear Dame Durden,—In granting your request, the thought came to me to tell the Ingle Nookers how I spent the last Empire Day. I had arranged to go with our pastor to Toronto, and on the way I mentioned that it was Empire Day, and that the public-school children were going to decorate the monuments in the Queen's Park, and that Their Excellencies, who were then visiting Toronto, were going to review the Boys' Brigades, and proposed we should go. He gladly assented. We got there in time to walk about the beautiful lawn in front of the Parliament Buildings and admire the beds of gorgeous tulips that were dotted over the lawn. There were very large and small round beds, some all red, others white and yellow; then there were those with the colors all mixed; one very large bed of "Parrot" tulips, and another of a beautiful pink; striped with white. The oblong beds that were on either side of the main walk were yellow in the middle, then a border of red, and the outer border was white. They looked at a distance like a beautiful broad ribbon. Earl Grey, the Countess, their daughter, with their attendants, were on time, and alighted from their carriages at the foot of the steps of the main entrance to the Parliament Buildings. The roadway had been roped off to keep the people back. When the carriages had driven off, on came the children; the girls first, dressed in white. The floral tributes were borne on a frame between four girls. Then came the Boys' Brigades of the different schools, who marched past in a quick soldierly manner. We stood in front of the vice-regal party, so had a good look at them. Lady Grey looked a very pleasant person, and was quite interested in the children.

After all had passed we went to look at the floral designs that had been placed on the monuments. At the extreme southern part of the lawn, and in front of the main door, is the statue of Sir John A. Macdonald; on the east, Gen. Simcoe, Queen Victoria, and a volunteer monument; on the west, the Hon. George Brown, Sir O. Mowat and a volunteer monument. There were many beautiful designs on each, but on the Queen's more than any of the others. A beautiful

pillow was placed in her lap, like a flag, formed of red, white and blue flowers. We then went to the north of the buildings, where the boys were lined up for review, after which the Earl addressed them from the bandstand, and I wished I were a boy to have been near enough to have heard all he said, for from where we stood we could only catch a word now and then. It was a beautiful, never-to-be-forgotten scene, the bright sunshine, the fresh green grass, the budding trees, and the throngs of well-dressed men and women walking about. After it was all over, as we were near Victoria University, my pastor took me there, and I saw what I had read about the beautiful oil paintings of John and Charles Wesley and their mother. I should like to tell you of the many interesting things I saw, but our Dame has limited us, and I am afraid I have crossed the border, but I want you dear Nookers that are far away to enjoy, if only on paper, one of those bright happy days that seldom come to the busy housewife. HELPONABIT.

Polly Answers Carnation.

Dear Dame Durden,—I noticed Carnation's request in "The Farmer's Advocate" for ginger cookies, so I thought perhaps she might like to try mine, which I think are very good.

Ginger Cookies No. 1.—Put in a large basin 1 cupful of broken butter, 1 cupful brown sugar, 2 cupfuls of molasses, 2 tablespoons ginger, 1 tablespoon of salt. Boil these together for five minutes; remove from the fire and stir in 2 teaspoonfuls of soda. Pour the foaming mixture into a dish with a little flour in it, then add more flour till stiff enough to roll.

Ginger Cookies No. 2.—Two cups brown sugar, 2 cups molasses, 5 eggs, 3 teaspoonfuls soda, 3 teaspoonfuls ginger. Mix with flour and knead lightly. Let rise over night; roll thin and bake in moderate oven; will keep for weeks.

Would someone kindly give a good recipe for a cold pudding? I think cold desserts are so nice in summer. POLLY. Bruce Co., Ont.

A series of recipes for summer cookery will appear in "About the House" during hot weather. We shall be pleased, however, to get recipes for anything good and novel from Ingle Nookers.

Preserving Flowers, Etc.

Dear Dame Durden,—Can you please tell me how to press white lilies that they will not discolor? Can you give a simple recipe for getting rid of ants? Can you give the names of any South African, German, French, or any foreign magazines or papers? NEW SUBSCRIBER. Frontenac Co., Ont.

It is a very difficult matter to press white flowers and have them keep white, as they all have a tendency to turn yellow. I clipped the following from an Australian paper, the other day. Possibly it may be of use to you: "Procure three or four quarts of fine, white sand, and wash it perfectly clean. Keep pouring the water off until it is perfectly clear; then dry the sand by placing it on a tin in the oven. When it is perfectly dry and quite cool, pour enough into a box



WE WANT TO MEET YOU

Ladies from out of town who anticipate visiting the city during the spring or summer are cordially invited to visit the most up-to-date institute in Canada for the treatment of skin, scalp, hair and complexional troubles. For over 14 years we have been most successfully treating

Superfluous Hair

Moles, Warts, Ruptured Veins, Birthmarks, Pimples, Blackheads, Blisters, Eczema, Rash, Dandruff, Wrinkles, Falling Hair, Freckles, Ecthymata, Oily Skin, Gray Hair, Corns, Bunions, etc., and improving and beautifying the figure, hair, hands and complexion. Every year shows an increase in the patronage extended us, showing that our efforts are appreciated. If you have been unsuccessful with others, try our treatment. Satisfaction positively assured.

Send 10 cents for our handsome treatise on Dermatology and sample of cream.

GRAHAM DERMATOLOGICAL INSTITUTE,

Dept. F. 502 Church St. TORONTO, ONT.



WASH DAY IS CHILD'S PLAY WITH THE NEW CENTURY WASHING MACHINE.

It means cleaner, whiter clothes—no backache—no chapped hands—no torn garments—no shrunken fabrics. It means a tubful of clothes washed every five minutes, with less trouble and exertion than running a sewing machine.

SOLD BY MOST DEALERS AT \$8.50 Write for free catalogue that tells the whole story. The Dowsell Mfg. Co., Limited Hamilton, Canada

Home-seekers' Excursion on Illinois Central Railroad.

FROM JUNE TO NOVEMBER, 1906

All south and west and north-west and south-west, Kentucky, Tennessee, Mississippi, Louisiana, including New Orleans. For above States, first and third Tuesdays each month. Tickets good 30 days. Liberal stop-over arrangements. One fare round trip, plus \$2. Reduced rates and excursions every Tuesday—June to November. Twenty-one days limit to points in Iowa, Minnesota, Dakota, and all Canadian Northwest. See your local agent or write.

G. B. Wyllie, 305 Main street, Buffalo, N. Y.

WILL MAKE YOUR WIFE WELL

Many a husband is held down and life robbed of much happiness because his wife is an invalid. I will send a free sample of this Wonderful Remedy, which has brought happiness into so many homes. Address, enclosing stamp, MRS. F. V. CURRAH, Windsor, Ont.

G. M. Annable, Moose Jaw, Sask.

Improved and Unimproved Farms For Sale in the Famous Moose Jaw Wheat Belt.

Prices and terms right. We sell on half payments. Have some snaps on 5,000 and acre tracts in Saskatchewan and Alberta. Correspondence solicited.



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.

ALBERTA lands for sale. Many good bargains. Write to-day. Patmore & Jamieson, Calgary, Alta.

CEDAR TREES, two to three feet high, suitable for hedges. Price, eight dollars per hundred, f. o. b. Sutton. E. K. Sibbald, "The Briars," Sutton, West.

FARM LABORERS—The Salvation Army will undertake to furnish suitable married men as farm laborers, teamsters, stablemen, men for railway construction work, etc. In making application please state what house accommodation can be furnished. For application forms write to Brigadier Howell, James and Albert streets, Toronto, Ont.

FOR SALE—950 acres near town site of Chesbarners, 10 miles from Calgary. Splendid farm. Personal property. C. Kinniburgh, Calgary, Alta.

FOR SALE, the registered Scotch collie stud dog, Locksley Laddie. A sure stock-getter. A worker on cattle. One of the largest and best bred collies living. Also choice puppies. W. J. Johnston, box 246, Meaford, Ont.

IMPROVED farms for sale in the Edmonton district. Candy & Co., Edmonton, Alta.

LABORERS wanted for tannery at Acton West. Beardmore & Co.

Grow Mushrooms in spare time. A crop all year round. Anyone can grow them on our special spawn. Immense profit. Undersigned will buy your crop. For directions write to-day. Fungus Co., Tecumseh, London, Ont.

WANTED to purchase.—One pure bred registered Shorthorn bull calf, also two Ayrshire bull calves—registered. Prices and particulars to the undersigned. Richard Robertson, Sec'y-Treasurer of Division A Agricultural Society, New Richmond, Quebec.



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 30 cents.

BARRED ROCKS—Extra fine quality. Eggs half price after May 24th. Write for full particulars. W. W. Dods, Alton, Ont.

BARRED Plymouth Rock eggs for sale from No. 1 egg layers; headed by twelve-pound imported cockerel; two dollars per fifteen. Herbert J. Miller, Lorenz.

CLEARING SALE.—S. C. White Leghorn cockerels, 75c.; eggs, 50c. Box 38, Smithfield, Ont.

EGGS from prizewinning White Wyandottes. Excellent layers. One dollar per setting. Three settings two twenty-five. Black Brothers, Guelph.

LAYERS, great payers, prizewinners; won over 20 firsts at seven shows, including Ontario. Eggs, per setting, \$1, or \$5 hundred, from Barred and White Rocks, White and Silver-laced Wyandottes, Brown and White Leghorns, Black Javas and Buff Orpingtons. \$2 per setting for Black Orpingtons and Blue Andalusians. F. W. Krouse, Guelph.

METAL BROOD COOPS—Rat, mink, louse proof. Greatest hit in poultry-raising. Agents wanted. C. Hoskins & Co., Quincy, Ill., U. S. A.

NOTICE that Rhode Island Reds are coming to the front. Have single-comb variety eggs, \$1 for 15. High-class birds. Satisfaction guaranteed. Frank J. Barber, Georgetown, Ont.

S. C. W. LEGHORNS. Layers. Big payers. My eggs, \$1, fifteen; \$5, hundred; \$2, fifteen; \$3.50, thirty; \$3, fifteen; \$5, thirty; according to quality. Hugh McGregor, Caledonia.

REAL GOOD Buff Orpingtons are raised from my eggs. \$1, fifteen; \$5, hundred; \$2, fifteen; \$3.50, thirty; \$3, fifteen; \$5, thirty; according to quality. Hugh McGregor, Caledonia.

WHITE Wyandottes, the popular business breed, Duston strain. W. D. Monkman, Bond Head, Ont.

WHITE Rock eggs for hatching, \$2 per 15. Good hatch and satisfaction guaranteed. Geo. M. Shephardson, Sombra, Ont.

WHITE Wyandotte eggs for \$1 per setting; three settings, \$2; or \$4 per hundred. F. W. Krouse, Guelph.

ATTENTION! POULTRYMEN.

The choicest prizewinning birds from the best strains of any variety of **Wyandottes.** Only high-class birds for sale. Address:

JAMES HOULTON, GREAT MALVERN, ENGLAND. or **S. HOULTON, CALGARY,** Canadian Representative.

Single-comb Brown Leghorn Eggs, \$1 per setting, from choice prize stock. A fine lot of **Yorkshires,** imported and home-bred, all ages; also a grand young **Shorthorn Bull.** **W. J. MITTON, Thamesville Sta. & P.O.,** Maple Park Farm.

Barred Rocks EGGS for hatching from a pen of E. B. Thompson's strain; headed by a prize-winning cockerel. One of the best we ever owned. \$1 per setting.

C. & J. CARRUTHERS, Cobourg.

to enable the flowers to stand by themselves when the stems are put in. The flowers must be fresh and entirely free from moisture. Now very gently and slowly pour in the sand, a little at a time, until each leaf and petal is firmly held in place; then fill the box with sand nearly two inches above the level of the flowers. Set in a warm, dry place, and let stand at least two weeks. This manner of preserving flowers retains the color, while the shape of the leaves and petals remains unaltered.

Scientific American gives the following methods of destroying black ants, which, we presume, are the kind you mean: (1) Take flour of sulphur, ½ lb.; potash, 4 ozs. Set in an earthen vessel over the fire until dissolved and united. Afterward beat to a powder, infuse a little in water and sprinkle in places infested by ants. (2) Scatter leaves of green wormwood among the haunts of the ants. When possible it is well to find the ant-hill and destroy it. Another method appeared in last week's Flower Dept.

We cannot answer your last question just now, but will do so soon, if opportunity offers. The Australasian, Melbourne, Australia, and the Otago Witness, Dunedin, New Zealand, are interesting papers.

From Happy-go-Lucky.

Dear Dame Durden.—The pins came some time ago. I was very much pleased with them, and thank you very much for sending them so promptly. I was much impressed with a Farmer's Wife's notes about raising money for church purposes, and agree with her wholly. Could anyone give me a cure for cleaning lime wash out of one's eye? Also, would like if someone could give me a recipe for burnt pudding. Your little talks are so entertaining, we would miss them very much. I remain yours, etc., with many thanks. **HAPPY-GO-LUCKY.**

Renfrew Co., Ont.
Now, my dear, are you just getting



Asparagus—Sweet Peas.

Dear Editor,—We have been taking "The Farmer's Advocate" for two years, and like it very much. I have been looking over your flower department, and I enclose leaves of a fern, which seems to grow fine, and after a while it dies all around the edge of the leaves; and also an ivy—it grows well and it never seems to blossom. It seems to keep green, and never dies. Would you please tell me why it does not blossom? Would you please give a full description how to grow sweet peas? Does it make any difference which direction they should be sown, and what kind of soil should be used? **B. B. B.**

New Brunswick.
The leaves enclosed are those of Asparagus Plumosus, which is not a true fern, although often called one. We think your plant needs shifting into a larger pot. The method for doing this without disturbing the roots has been given repeatedly in this department. Give the asparagus plenty of water, with frequent applications of weak liquid manure or plant food to the roots, and keep, if possible, in an east window.

You forgot to enclose leaves of the ivy, but if it is a true ivy, and not an ivy geranium, you need not be surprised that it does not blossom. Ivies are not grown for blossoms.

Your question re sweet peas is rather late in coming in, but you will find full directions for their culture in our issue of March 29th. Sweet peas must be planted just as early in spring as the soil can be worked. The soil should be deep and rich, and the rows, some say, should by preference run from north to south, in order to get the sunshine on both sides at some part of the day. This, however, is not imperative. All you can do now is to cultivate the earth about the peas frequently, and give them plenty of water, enough to soak right

ready for a whitewashing bout, or are you waiting there with the lime in your eye for this answer to be published? Upon my honor, I don't know of a single thing that would be better than just washing it (the lime, of course, not the eye) out with warm water. It isn't a very nice experience, is it? I've been there."

About the burnt pudding—do you mean one made with scorched sugar? If so, a very good one is made as follows:—Put 1 cup of sugar in a granite pan, and set on stove. Let brown slightly, then add 2 cups sweet milk. When all the sugar has dissolved, stir in 2 beaten eggs mixed with 1 tablespoon cornstarch, blended in a little milk. Stir until cooked, and serve with cream.

Dandelion Wine

Dear Dame Durden,—Could I trouble you to tell me, through your valuable Ingle Nook, how to make dandelion wine; also, could I make marmalade out of sweet oranges? When the marmalade oranges were in I was not able to make it. **AN "ADVOCATE" READER.**

Dandelion Wine (1).—To every 4 quarts of dandelion blossoms add a quart of warm water, previously boiled. Pour into a jar, cover with a cloth, and let stand three days. Stir frequently. Strain and boil half an hour with the yellow rind of a lemon, a little bruised ginger, and 3½ lbs. sugar to every gallon of liquid. Pour back into jar, and when cool add 1 oz. yeast spread on toast. In two days pour into a cask. Bung tightly, and in four months it is ready to bottle.

Dandelion Wine (2).—Steep together for three days 1 gal. water and 1 gal. flowers. Strain. Add 3 lbs. sugar, 3 sliced lemons, 3 sliced oranges. Boil, take off and when lukewarm add ¼ yeast cake. Ready in a month. When serving, put 1 tablespoonful to a glass of cold water.

Many prefer marmalade made wholly from sweet oranges.



Hints for the Flower Garden.

1. Thin poppies out to six inches apart.
2. Work a little hardwood ashes as a top-dressing into your aster and sweet pea beds.
3. Stir the soil frequently about your annuals, but be sure not to go deep enough to injure the roots.
4. Always keep ahead of the weeds; never let the weeds get ahead of you. They suck up the soil elements, which should go into the flowers.
5. If troubled with rose-bugs, spray the bushes once a week through June with arsenate of lead, 1 lb. to 10 gals. Mulching about the roots with lawn clippings will save watering and help the bushes.
6. Shower fuchsias thoroughly every day.
7. Prune flowering shrubs after the flowers are off, removing only the sprouts that have flowered, and any decayed wood.
8. For transplanting, choose a time late in the afternoon, after rain if possible. Put plenty of water on the soil in which the young plants are growing, then take up carefully, keeping as much earth as possible about the roots. Set in holes large enough to leave no danger of cramping the roots, and press the earth in gently but firmly. If there has been no rain, pour plenty of water about the roots, and cover the damp surface with a little dry, pulverized earth, which will act as a mulch and conserve the moisture.
9. Keep beds and borders free from weeds, by stirring the surface of the soil up frequently with a garden trowel. Besides removing the weeds, the stirring up

HOMESEEKERS' EXCURSIONS

VIA **CANADIAN PACIFIC RAILWAY** TO THE **NORTH WEST**

RETURN FARES:	
Winnipeg - \$32.00	Strassburg - \$36.25
Souris - \$3.50	Saskatoon - \$7.25
Brandon - \$3.50	Prince Albert - \$8.00
Moosomin - \$4.20	No. Battleford - \$9.00
Aroola - \$4.50	Macleod - \$4.00
Estevan } - \$5.00	Calgary - \$4.50
Yorkton } - \$5.00	Red Deer - \$4.50
Regina - \$5.75	Stettler } - \$4.50
Moose Jaw - \$6.00	Edmonton } - \$4.50

GOING:
June 5th, good to return until August 6th.
June 19th, " " August 20th.
July 3rd, " " Sept. 3rd.
July 17th, " " Sept. 17th.

For rates to other points and complete information apply to nearest Canadian Pacific Agent, or write to C. B. FOSTER, District Passenger Agent, 71 Yonge St., Toronto.

Grand Trunk Railway System.

\$14.60 TO BOSTON

Going May 31st to June 11th. Returning until June 18th. The only through car service route. Through Pullman sleeper Toronto to Boston.

HOME-SEEKERS' EXCURSIONS

\$32.00 to \$32.50 To points in Manitoba, Alberta, Saskatchewan.

Via North Bay: June 5, 19; July 3, 17. Via Sarnia & N. S. Co.: June 4, 20; July 4, 18. Returning within 60 days.

For tickets and full information call on **E. DE LA HOOKE, City Passenger and Ticket Agent.** **E. RUSE, Depot Ticket Agent.** London, Ontario.

BOILS!

Mission Ointment is a prompt and painless cure. For any old or running sore, blood poisoning or ulcer, or for sore shivers or scratches on horses, no remedy is so good. At stores, 25c. and 50c., or sent, express prepaid, for 35c. (small bottle), 50c. (large).

State your P. O. and nearest express office. **Mission Ointment and Chemical Co., TORONTO.**

ARREST IT—\$50.00 REWARD

A small sample bottle of Ecz-zine will be sent free to every reader of "The Farmer's Advocate" who is suffering with disease or eruption—Ecz-zine, Blood Poison, Fever Sores, Cancer, Rheumatic Pains, or any other Germ or Virus disease or sore of any name or nature. \$50 reward will be paid for any case of Ecz-zine that is not promptly cured with Ecz-zine. Ecz-zine will heal any sore or cure the worst skin and make it look like velvet. Never mind what you have tried; forget the failures made by other remedies, and send for free sample of Ecz-zine, which always gives relief and permanent cure. A \$1 bottle often cures the worst cases. Ecz-zine is successfully used in hospital and by physicians generally. It is not a patent medicine. If your druggist does not have Ecz-zine send direct to us. State nature of disease and years' standing. Address: **The Physicians Laboratories, 806 Boyce Building, Chicago, Ill.**

WEDDING stationery. Young ladies who are interested in what is proper in the matter of stationery for weddings, should send for our booklet. Free for the asking. Latest type faces. Best imported stock. **Lynn Side Press, Dept. 5, Simcoe, Ontario.**

\$15 WOMEN'S SPRING SUITS \$4.50 Made to order suits to \$15. Raincoats, silk jackets, linen suits, skirts and waists at manufacturers' prices. Send for new samples. **Southcott Suit Co., Dept. 27, London, Ont.** Send for mail order catalogue which contains everything you use, at wholesale.

Advertise in the Advocate

is exceedingly good for the young plants, drawing up the moisture from below, by capillary attraction, to where it can nourish the roots.

10. When watering plants be sure you give enough to penetrate right down to the roots. A little on the surface is worse than none at all. After watering, cover the damp surface with a mulch of dry earth, or hoe the surface so that it will dry out quickly and form such a mulch to retain the moisture.

Training that Crushes Individuality.

Dog trainers tell us that they get their best results by training a dog to do a thing because he wants to do it; that is, they give him a motive for doing it, until he does it spontaneously, without being forced. A noted trainer says, "My dogs work for me more because they want to please me than because they are afraid of a whipping if they don't obey. If, before a dog comes to me, he has been bullied for every little failure, it is next to impossible to make anything of him."

If an animal trainer cannot get the best results by forcing an animal to do a thing against its will, how can a parent or teacher expect to get the best results from a child by the employment of fear or force? A normal boy and girl, if properly trained, will not need to be forced to do things. A young mind longs for activity and expression, but, if spontaneity is crushed out of the life by slave-driving methods, ambition may be ruined, and the natural power of self-expression entirely destroyed. Many sensitive children have been ruined by being nagged and bullied for every little fault. Their natures became warped and twisted by being compelled to do things, instead of being so led that they were not only willing, but also anxious to do them.

Just as a dog trainer, by proper training, gets the best results from a highly-organized, intelligent dog, but finds that the animal is all the more easily spoiled because of his very intelligence and sensitive organization, so, finely-organized, sensitive children, while capable of the highest degree of development, are, on that very account, more likely to be ruined by harsh, compulsory methods.

Spontaneity is absolutely necessary to originality, and unless a child is allowed to develop along the lines nature has marked out for him, it is impossible for him to be original and to preserve his individuality.

Parents should stop and think when a child does not show enthusiasm in his studies, or in his work. There is something wrong, for enthusiasm is as natural to child life as song is to a bobolink, or as play is to a young puppy.

Encouragement, praise and sympathy will do more to develop naturalness and self-expression in a boy or girl than any amount of threats, compulsion, or restraint.

Some parents try to fit a boy to a certain pattern, and to mold him into such a shape as they desire. They leave no room for the expression of his individuality, but try to conform him to some fixed and old-fashioned idea of their own.

The way to develop a child properly is to study him from the standpoint of what he is, not of what you think he ought to be. He may not at all fit into your conception of what a boy should be, but he may be much better and larger in every way. Find out what is in him, and help to draw it out. Encourage him every time he does well; lead him to free, untrammelled development of all that is best in him, and you will find the result will be far more satisfactory than if you had tried to cast him in your particular mold. —Success.

Had the sorrows of women been averted if they could repress the speech they knew to be useless—nay, the speech they have resolved not to utter.—George Eliot.

The Woman Who Lives.

We are wont to say of the country woman who has never been out of her native State, and seldom seen a theatre or a street car, that she has seen little of life. I challenge this statement. I say that the woman who was born in a city, educated in a woman's college, sent abroad in the conventional fashion, and married suitably at the proper time, has seen little of life. I say that many such women live and die without seeing life or knowing in any sense what life is.

Society is not life. While its narrow round is sounding its brass and tinkling its cymbal, life is going fiercely on, down in the narrow street where we struggle for bread, out in the barnyard where the feathered folk are stirring to spring industries and the patient beasts are waiting our demands.

Life is here in the kitchen, where the woman must, with consummate cleverness, never to be excelled by any art or accomplishment, minister to the bodily wants of a few of her fellow-creatures.

It is the woman who has walked across the fields on a wild winter night to help a sister woman in her hour of trial, the woman who has dressed the newborn baby, and composed the limbs of the dead, learned the rude surgery of the farm, harnessed horses, milked cows, carried young lambs into the kitchen to save them from perishing in the rough March weather—it is she who has seen life.

There is a big, joyous, hearty way of accepting what life brings you, but women have not been taught as men have, that it is a disgrace to shirk. They seem to think it the proper thing to do, or, finding shirking out of the question, they are prone to settle down, to relinquish impressions of romance, renounce artistic instincts, and narrow themselves to what they call the practical. In this they hugely abuse the practical. A woman may be practical without losing the habits of mirth and laughter that made her girlhood so lovable.

Indeed, if she is thoroughly practical, she will see that it is her own personality she should cultivate for her own sake, rather than stupid economies and hard, morbid sacrifices by which she deliberately destroys much of her feminine grace and charm.—[The Ladies' Home Journal.

Nutmeg Trees and Fruit.

"The nutmeg tree begins to bear at the age of ten years," said a gardener. "It keeps on bearing until it is ninety. The fruit resembles an apricot, and when the fruit is ripe it bursts open, showing at its heart the black nutmeg enclosed in a network of scarlet."

"The nutmeg, after plucking, must be dried. It is dried over a slow fire, and the process is tedious. It often occupies two months."

"Before shipping, the nutmegs are always steeped in sea water and lime. This is to protect them from insects. They have nothing but insects to fear. In an insect-proof condition they keep—well, they keep practically forever."—[N-w Haven Register.

The Squirrel.

A squirrel's natural term of life is from fifteen to twenty years, and in localities where they are little disturbed they multiply with extreme rapidity. Indeed, in the early history of the United States, they were so numerous in certain localities as to be almost a plague, and large sums were annually paid in bounty for the scalps. In the west, large hunts were organized by the early settlers, in order to try to reduce their numbers, as now it is found necessary to do to prevent the jack rabbits from becoming a scourge to the farmers. On these hunts, thousands of squirrels were killed, and yet, from all accounts, their numbers were not greatly reduced.



The ONE Roof that is TIME-Proof

The Carey Roof cannot catch fire from falling sparks, blow off, rust, rot, melt or develop leaks. It defies the elements. Once on, your roofing troubles end. Lasts as long as the roof-boards hold.

CAREY'S MAGNESIA FLEXIBLE CEMENT ROOFING

is the oldest and best composition roofing for NEW buildings. You or your farm hand may easily apply it over your LEAKY shingle or hole-pierced metal roof. "I have covered old shingles with it, making a perfect roof"—J. R. JUNGBLUTH, Arlington Farm, Neb. Carey's Roofing is composed of an always flexible asphalt body of cement, with a heavy woolen felt foundation and strong burlap, firmly imbedded into the upper surface—all compressed into compact and practically indestructible sheets. The Carey Patent Lap protects from sun-rays and rust, the nails driven in to stay, insuring a permanent, waterproof, smooth union. Sold to farmers at manufacturers' prices from warehouses conveniently located all over the United States and Canada, insuring lowest freight rates. Write to-day for FREE Sample of Carey Roofing and interesting booklet.

THE PHILIP CAREY MFG. CO., Sole Manufacturers,
TORONTO, ONT. LONDON, ONT. MONTREAL, QUE.



Church Workers RAISE MONEY

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BEAUTIFUL ALUMINUM SOUVENIRS.

Have a picture of your own pastor and church on a beautiful CARD TRAY or CALENDAR. This card tray has an elaborate and artistic floral design on the corners, and has a heavy roll rim. The PERPETUAL CALENDAR is just what the name implies. It is good for TEN YEARS, so makes a very serviceable souvenir. The photos are reproduced by a secret process of carbon photography, and you can have any picture you wish to send printed on the souvenirs. Fill out the following blank, and we will show you how easy they can be secured:

The Wm. Weld Co., Ltd., London, Can.: Kindly send your plans for money-raising to the following address:

Name
P. O. Prov.
Denomination.....Name of Society
Remarks



GOSSIP.

Attention is called to the new advertisement of the National Fence Co., Merrickville, Ont., of their woven steel wire fencing, the claims of which to public favor are stated in their announcement.

Messrs. R. A. & J. A. Watt, of Salem, Ont., write that, as they do not intend to exhibit Shorthorns at the fairs this year, all their cattle are out on grass, but that they are open to supply some choice yearling heifers and bull and heifer calves of the Salem stamp—the result of the system of breeding that has made the herd famous for the production of prizewinners.

At the Kinloch, the dispersion sale of the Jersey herd of Dr. C. E. Still, at Kirksville, Missouri, May 22nd, 116 head, the entire offering, sold for over \$26,000, making an average of \$230 in round numbers on old and young, including several calves from three days to six weeks old that sold separately. The average on 110 head catalogued was \$237. The bull, Silverine's Lad, topped the sale at \$1,510, going to the Hartman Stock Farm, Columbus, O. His sire, Silverine Coomassi, sold for \$950 to G. G. Council.

Mr. H. J. Davis, of Woodstock, Ont., advises us that he intends sailing for Great Britain on May 31st, for the purpose of bringing out some Shorthorns, Yorkshires and Cotswold sheep. His address will be care of Messrs. Donaldson Bros., shipping agents, Glasgow, Scotland.

TRADE TOPIC.

GOING AHEAD.—The Ontario Wind Engine and Pump Company, Toronto, Ont., recently shipped to a Mediterranean port fifteen 12-ft. air-motor irrigation outfits, and have an order in hand at the present time for thirty more, making in all three carloads. They also have an order in hand for two 16-ft. irrigation outfits, with 8-in. pumps, for Cairo, Egypt. This latter order came through the excellent satisfaction given by two similar outfits which they supplied the British Government in 1903. "We not only have the honored distinction of having had our Canadian Airmotors carried to the Antarctic regions on the steamer 'Discovery,'" writes the company, "and to the Arctic regions, but we are steadily forging ahead, and gaining ground in our quiet way in foreign lands. We feel a little proud of this distinction for goods made in Canada."

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.

Miscellaneous.

LIABILITY OF STOCK-FOLDERS.

Can a limited company, chartered by the Government, sell stock to individuals? If such company fails, can they come on the shareholders for another assessment, according to each share, or not?

Frontenac Co., Ont.

Ans.—The creditors can, and up to the full amount unpaid in respect of each share subscribed, if necessary for payment of the debts.

BAIT FOR TROUT FISHING.

State the best kind of bait to use in angling for trout. Do artificial flies make the best bait? If so, please state where they may be bought.

SUBSCRIBER.

Ans.—If you are fishing for the style of the thing, you may use the artificial fly; but to catch trout, especially in streams, fishworms are all you need. One angler says he uses fishworms for streams and flies for large ponds. Flies may be bought of dealers in sporting and angling supplies in any town near which fishing is done.

A HUMPED-BACK CALF.

I bought a pure-bred calf, six months old. He had been stunted, and was very lousy. After I got him, I fed two quarts of part pea and part oat chop, along with hay. He got humped in the back. Can anything be done to straighten his back? He is now out on grass.

Ans.—The run on fresh grass will probably be helpful, but when weather gets hot and flies troublesome we would advise keeping him in a loose box stall or shed and feeding chopped oats and bran with good hay. A little coarse-ground oil cake added will be good for him. His back may straighten some when he improves in condition.

EXPROPRIATION BY RAILROAD.

A railway, which the ——— company wish to build to join the ——— railway from the north, cutting off a corner of our farm to lessen their grades, would leave it almost useless as a grain farm, and only useful for pasturing. Could the company be compelled to buy at a reasonable price the portion thus affected. It also cuts us off from the water supply or creek. Could they be forced to buy the farm, as I have heard it is different from a main railway going through?

Ans.—The company could not be exactly compelled to purchase the farm, or even the corner of it in question; but it would practically come to the same thing, as they would be obliged to give full compensation for the injury done your property, and under the circumstances they would probably prefer to buy.

MISREPRESENTATION OF HORSE.

I bought a horse from Mr. T. for \$85, and I asked him if horse was quiet and good to work, and he said as far as he knew. Next day after I brought horse home, I was told to look out for that horse when I hitched it up; and two or three days after, I saw Mr. T. and I asked him what was the matter with the horse when people were saying to be on the lookout, and he said she was all right. The very first time I hitched the horse up she kicked. I kept her one month and eight days, and tried everything I could to get her to work, but she got so bad she would do nothing but kick. Can I collect damages? I bought for eleven this spring, but was told since that she was a lot older.

Ontario.

Ans.—You are probably entitled to damages for misrepresentation, and can bring an action against Mr. T. for same. We must add, however, that you would do well to avoid litigation, if possible, and especially as you would be likely to meet with considerable difficulty in respect of the matter of the evidence requisite to establish your case to the satisfaction of the court. We would recommend, therefore, an earnest effort to bring about a settlement.

INVERSION OF THE RECTUM.

Two-months-old calf had dysentery very bad. Got this cured, but the rectum protrudes about three or four inches when the calf tries to pass anything, and then goes in again. Rectum is very much inflamed.

J. C.

Ans.—Bathe well with cold water, and apply an ointment made as follows: Powdered galls, 2 drams; powdered opium, 1 dram; vaseline, 12 drams. See that the bowels do not become constipated.

R.

TURKEY EGGS UNDER HENS.

Turkey hen has laid 20 eggs, but always would go to the henhouse. We forced her to sit in the driving-house. She soon showed signs of being sick, so we took the eggs and placed them under hens. Should we dust the hens with insect powder? If so, what kind? Are we likely to have any success? I would like to have someone's experience.

M. H.

Ans.—If the eggs were being satisfactorily incubated under the turkey, there is no reason why the hens should not complete the job satisfactorily. It will be a good plan to dust the hens with insect powder. Use the common, old-reliable pyrethrum.

LIGHTNING RODS ON WINDMILL—FURNACE CHIMNEY.

1. I intend erecting lightning rods on my barn, using galvanized wire. Have a power mill on barn, how would I protect that? Would it do to connect a wire from the shaft of mill to horizontal wire along peak of roof?

2. Built a new chimney last fall; has a 14-in. flue. It is only about 2½ ft. above top of roof. Put in a new furnace. It doesn't seem to work right; it smokes if I use the check draft in the pipe, and the result is the wood burns away very fast, or not at all. Chimney is built from cellar floor.

L. N.

Ans.—1. Yes. The latest authorities on lightning-rod construction advise connecting all metal work on the building with the rods.

2. We scarcely think that the trouble is in the chimney, though it may be. We have known chimneys whose draft was defective, improved by having a length of eight-inch sewer pipe placed on top.

T. B.

FOUNDATION FOR BASEMENT—MILL ASHES.

Building a basement barn; location is dry, gravelly, good drainage. Cedar fence posts that have been put down years ago have never heaved with frost. In building a stone foundation, some advise me to build on the surface, others tell me that I should dig a trench two or three feet deep and start my foundation that depth below the surface. I would like an answer as to which would be the better way. Am putting in cement floors, and tile draining the barn site.

2. Are wood ashes, such as obtained at a sawmill for the hauling away, of much value, applied as a top-dressing for meadows? The ashes are leached a good deal by the rains. Does this decrease their value a great deal? What is the best way of applying ashes?

ENQUIRER.

Ans.—1. We would not advise starting the wall at the surface of the ground, but as you are tile draining the site, a shallow trench, say 20 inches deep and 12 feet wide, should suffice. Fill with stone to within 6 inches of the top, and then commence the 18-in. wall. Some lime or cement mortar might be used to make a bed for the wall to rest on. Pour over the stone, and ram down.

2. Yes, take all you can get. They will be of especial benefit in encouraging a growth of clover. Put them on the light loamy or sandy knolls. We remember a field of this nature fertilized heavily thirty years ago with leached ashes from a local potash plant. To this day, the effect of that application may be seen in the crops. Leaching will have reduced, but not exhausted, the potash content of the ashes, and the phosphoric acid will have suffered little loss. Apply by broadcast with a shovel from the wagon. We believe a manure spreader would work all right, if you have one.

Canadian Agents for the Original
McDougall's Sheep Dip & Cattle Dressing
Imported direct. Price: Imperial pint, 35c; imperial half gallon, \$1.25; imperial gallon, \$2.25. Sold by druggists, or charges prepaid on one gallon tins. **THE WORTHINGTON DRUG CO., Toronto, Ontario.**

CEMENT BLOCKS FOR SILO—SPRAYING YOUNG TREES—VETERINARY INQUIRIES.

1. I am advised by contractor to use hollow blocks rather than solid concrete in building silo. Which would you advise me to use?

2. Young cow has had hard lump about as large as a goose egg under jaw bone for about a year. It is not attached to bone, and apparently does not injure cow. Would treatment recommended in Christmas number of "The Farmer's Advocate" suit her case?

3. How often does a young orchard, not yet bearing, require to be sprayed?

4. Young mare, carrying first foal, took dropsy one month before foaling time, resulting in the rupturing of the belly very severely. Do you think I would have any chance of raising a colt from her?

SUBSCRIBER.

Ans.—1. For the satisfaction of having it tested, we would like to see a cement-block silo built by someone in Canada, but we would not advise a poor man to try it, as a cement-block wall would certainly not be so strong as a solid wall reinforced with metal.

2. If it becomes no larger, it would be as well to leave it alone, but if it grows would advise you to have it dissected out by a veterinarian, who would then prescribe the after treatment.

3. Ordinarily, about four or five times once with copper-sulphate solution before the buds swell, once with Bordeaux mixture as the leaf-buds are expanding or nicely open, and with Bordeaux mixture and Paris green two or three times later, at intervals of eight or ten days. The occurrence of special pests may necessitate extra spraying.

4. You would certainly be inviting trouble to breed your mare again, although cases are known where foals have been produced from mares suffering as you describe. Would not advise breeding her again.

R.

GOSSIP.

THE BENEFITS OF ADVERTISING.

The erroneous notion appears to prevail among many small or obscure breeders of pure-bred stock that they cannot afford or that it will not pay to advertise in the leading farm journals. Experience has, however, proven to the satisfaction of many who do not claim to rank among the larger or more prominent breeders, that although the rates of the principal paper are higher than the ordinary, the returns in quick and ready sales at good prices almost invariably make it a case of the best being the cheapest. The best paper, as a rule, has the widest circulation, and reaches the people most likely to pay a good price for good stock. And these can only be reached by advertising in the paper that reaches that class of buyers, as the people in one's own locality are seldom the best buyers. There is a general tendency to seek for stock from a distance, even though it may be no better, and, possibly, not so good as could be secured nearer home. The idea of importing seems to have a charm for the great majority of people, and they are willing to pay the difference for the name of the thing.

A writer gives the following bit of experience in support of this contention: "I had a flock of pure-bred sheep, which, owing to the extension of my dairy herd, I wished to sell, and preferred to sell them all in a bunch. I therefore, put an advertisement in a farm and stock journal that had a wide circulation among stockmen, calling attention to the merits of my sheep, which brought me a number of enquiries from distant points. I do not think any of my neighbors were subscribers to this journal, but, through that bureau of general information, the story became known that the sheep were for sale. One of my neighbors who had a small flock of grade sheep came to me and offered me eight dollars a head for the flock, which was less than half what I valued them at. And take the hull of the good, had and indifferent! I thanked my neighbor for his offer, and I saved him from further folly by declining his offer. He told me no one else in the neighborhood would give me any more, and he told the truth. But in his pure-bred stock business, I never degraded in the neighborhood for a market,

and a few days later I sold the sheep to a distant flock-owner who had seen my advertisement, for \$20 a head, which left me a substantial margin after paying for the advertisement. This, it is true, was not a large price for stock of the character of those I had to offer, but I mention it to show the difference between it and what could have been realized without advertising." Next to treating farming as a science, which simply means a correct knowledge of the subject, should come the consideration of its business aspect, and of first importance in this connection is the art of securing good markets through the agency of judicious advertising in the journal which reaches the people most likely to purchase what one has for sale.

At the auction sale of Shorthorns from the herd of W. I. Wood, of Williamsport, Ohio, on May 16th, forty-six head, 37 females and 9 bulls, brought an average of \$183. The imported Duthie-bred seven-year-old cow, Proud Fancy, by Pride of Morning, sold for \$1,000 to Col. F. O. Lowden, of Illinois. Bapton Countess, a Scotch-topped Bates, by Bapton Arrow, brought \$805, being taken by Thos. Johnson, Columbus, Ohio. The highest price for a bull was \$275 for the yearling, Lovat Ring.

The Budget Speech.

On May 22nd, Hon. W. S. Fielding, Dominion Minister of Finance, presented his budget speech, in which the following figures were presented: The revenue for the fiscal year ending June 30th, 1906, was estimated at \$79,000,000, an increase of \$7,800,000 over the year before. The ordinary expenditure was estimated at \$66,500,000, an increase for the year of \$3,180,000. The surplus of revenue over ordinary expenditure is expected to be \$12,500,000. The expenditure on capital account is computed at \$15,500,000, making the total expenditure for the year \$82,000,000. The excess of total expenditures over receipts is \$3,000,000. From this the Minister deducted an available sinking fund of \$2,200,000, leaving \$800,000 to be added to the country's debt as the result of the year's financing. The number of immigrants arriving during the last ten months was 117,585, as compared with 93,309 for the same period a year ago. Mr. Fielding computes the population of the Dominion at over 6,000,000.

As regards the tariff, it was intimated that there is no reason to expect disturbance from the intended revision next November. The only action concerning the tariff at this season is in the form of a couple of resolutions that the existing tariff provision, providing for the exemption of beet-sugar and alluvial-gold-mining machinery, be continued till December 31st.

Quebec Veterinarians.

The annual meeting of the Association of Veterinary Surgeons in the Province of Quebec was convened May 25th. The election of officers for a two-year period resulted as follows: President, Dr. M. C. Baker, Montreal; Vice-President, Dr. J. D. Duchene, Quebec; Secretary-Treasurer, Dr. G. A. Dauth, Coteau du Lac; Registrar, Dr. F. T. Daubigny, Montreal; Board of Directors—Dr. Patasse Genereaux, Montreal; Dr. G. H. Vignau, Three Rivers; Dr. J. W. Symes, Leeds; Dr. H. Pilon, M. P., Vaudreuil.

TUDHOPE'S CARRIAGES.—The man who advertises his goods is the one who has confidence in their good qualities. He knows that they're right—that they will perfectly satisfy the buyer. This is particularly true of the Tudhope Carriage Co., of Orillia. This company has been making and selling carriages for a great many years, and has always set before them a high standard of excellence. Their reputation has grown with their business, which extends from ocean to ocean, and Canadians know that when they buy a Tudhope they get their money's worth every time. If you are thinking of buying a carriage, we would advise you to write this company for their catalogue before deciding on any other.

To Loosen the Cough

AND BRING ABOUT A THOROUGH CURE OF COLDS, USE

DR. CHASE'S SYRUP OF LINSEED AND TURPENTINE

It is sometimes dangerous to stop a cough. The aim should be to loosen the cough, relieve the tightness and pain in the chest, and aid expectoration, so that the obstructing and irritating mass may be passed out of the air passages.

This is exactly what is accomplished by the use of Dr. Chase's Syrup of Linseed and Turpentine.

It is not a mere cough mixture, and not intended to stop the cough, but rather to cure the cold.

If you have tickling in the throat, pains and tightness in the chest, sensations of irritation, of oppression or suffocation, this great family medicine will afford almost instant relief, and thoroughly overcome the cold which gives rise to these symptoms.

Not only is Dr. Chase's Syrup of Linseed and Turpentine a positive cure for croup, bronchitis, whooping cough, asthma and severe chest colds, but is also a preventive of all diseases of the lungs.

It has time and again proven its right to a place in every home, and is the standby in thousands of families.

Miss Ada O'Brien, Cape Cove, Gaspé County, Que., writes: "Eight months ago I was taken with a severe cough, which lasted three months, and, though I had tried all sorts of medicines, they failed to do me any good. A friend advised the use of Dr. Chase's Syrup of Linseed and Turpentine, and I was completely cured by two bottles. I can recommend it as a splendid medicine."

Dr. Chase's Syrup of Linseed and Turpentine, 25 cents a bottle, at all dealers, or Edmanson, Bates & Company, Toronto. To protect you against imitations, the portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every bottle.



THE OSHAWA HAY CARRIERS
For Rod, Wood and Steel Tracks
SLINGS AND FORKS,
Agents wanted in unrepresented territory

EASY MONEY AT HOME
Raising canaries. More profitable than chickens. All indoors. You'll get \$2.50 to \$5.00 each for young singers. Experience unnecessary. To get you interested quickly we send COTTAM BIRD BOOK (thousands sold at 25c.) and two caker
BIRD BREAD 10 CENTS.
and "CANARY VS. CHICKENS" showing how to make money with canaries, all for 15c. stamps or coin. Address
COTTAM BIRD SEED, 38 St., London, Ont.

Do You Want One?
WE SELL THEM.
Samis & Bush,
Calgary.
Write to-day.

THE GENUINE SMITH STUMP PULLERS
W. SMITH GRUBBER CO. LACROSSE, WIS., U.S.A.
CATALOG FREE

Farmers' and Women's Institute Meetings.

Speakers and subjects: Andrew Elliott, Galt—"Cultivation and Rotation," "Growing Lambs for Profit," "The Butcher's Bullock from Breeding to Block," "The Bacon Hog," "Profitable Dairying," "Selection of Seed Grain," "Farming as a Business," "The Building up of the Home,"

Miss Laura Rose, Guelph—"How to Make the Dairy Bring in Larger Profits," "Defects we find in Butter—Their Cause and Remedy," "Cheese—Its Food Value and Simple Recipes," "As Others see Us," "The Womanly Sphere of Woman," "The Head, the Hand, the Heart—the Tripod of Successful Work."

Fort Francis—Rainy River	June 6
Crozier—Rainy River	" 7
Devlin—Rainy River	" 8
Emo—Rainy River	" 9
Barwick—Rainy River	" 11
Stratton—Rainy River	" 12
Rapid River—Rainy River	" 13
Rainy River—Rainy River	" 14
Kenora—Rainy River	" 18
Eagle River—Rainy River	" 19
Oxdrift—Rainy River	" 20
Dryden—Rainy River	" 21
Murillo—Thunder Bay	" 22
Paipoonge—Thunder Bay	" 23
Stanley—Thunder Bay	" 25
Hymers—Thunder Bay	" 26
O'Connor—Thunder Bay	" 27
Bishop's Mills—Thunder Bay (aft.)	" 28
Ouinnet—Thunder Bay	" 30
Wolf River—Thunder Bay	July 2

W. C. Shearer, Bright—"Rotation of Crops and Selection of Seed Grain"; "The Cultivation of Mangels, Potatoes and Turnips"; "The Bacon Hog and his Feeding"; "Selecting a Dairy Herd." Evening—"Pure-bred Poultry for Boys and Girls"; "Making a Success on the Farm."

Miss B. Maddock, Guelph—"Our Institutes and How to Make Them Interesting"; "Bacteria: Their Relation to Health and Disease"; "Different Cuts of Meat: Their Selection and Preparation"; "Hygienic and Economic Values of Food"; "Simple Home Remedies without Recourse to the Patent-medicine Man or the Doctor"; "A Girl's Possibilities"; "Science of Buttermaking"; "Bread-making."

Iron Bridge—E. Algoma	June 6
Goldenburg—E. Algoma	" 7
Sowerby—E. Algoma	" 8
Livingstone Creek—E. Algoma	" 9
Little Rapids—E. Algoma	" 11
Alma Heights—E. Algoma	" 12
Desbarats—N. Shore Algoma	" 13
MacLennan—N. Shore Algoma	" 14
Bar River—N. Shore Algoma	" 15
Echo Bay—N. Shore Algoma	" 16
Taranterus—C. Algoma	" 18
West Korah—C. Algoma	" 19
Base Line—C. Algoma	" 20
Goulais Bay—C. Algoma	" 21
East Korah—C. Algoma	" 22
Walford—E. Algoma	" 25
Warren—W. Nipissing	" 26
Sturgeon Falls—W. Nipissing	" 27
North Bay—W. Nipissing	" 28

Dr. H. G. Reed, Georgetown—"The Breeding of Live Stock"; "Diseases of the Digestive System of Cattle"; "Diseases Likely to Occur in Newly-calved Cows, and Preventive Treatment"; "Care of the Brood Mare and her Foal"; "Care and Feeding of Horses"; "Cultivation of the Soil"; "Selection of Seed Grain and Eradication of Weeds." Evening—"A Talk to Farmers' Sons"; "Development and Training of Young Horses."

Miss Lillian Gray, 650 Bathurst St., Toronto—"Value of Fruit in our Diet"; "Foods (illustrated by charts)"; "Meats (illustrated by charts)"; "Domestic Science on the Farm"; "Making Home Attractive"; "Every Man the Architect of his own Fortune."

Sessions held at 2 p.m. and 7.30 p.m.

Reay—S. Muskoka	June 4
Germania—S. Muskoka	" 5
Purbrook—S. Muskoka	" 6
Macaulay—S. Muskoka	" 7
Baysville—S. Muskoka	" 8
Bardsville—S. Muskoka	" 9
Port Carling—Port Carling	" 11
Brackenrig—Port Carling	" 12
Uford (aft. for men, eve. joint session) and women)—C. Muskoka	" 13
Beatrice (women's meeting, 2 p.m.)—C. Muskoka	" 18
Raymond—C. Muskoka	" 14
Allansville—C. Muskoka	" 15

Utterson (aft. for men, eve. joint session)—C. Muskoka	June 16
Parkersville—C. Muskoka (3 p.m.)	" 16
Callander—E. Parry Sound	" 18
Powassan—E. Parry Sound	" 19
Nipissing—E. Parry Sound	" 20
Restoule—E. Parry Sound	" 21
Loring—E. Parry Sound	" 22
Arnstein—E. Parry Sound	" 23
Golden Valley—E. Parry Sound	" 25
Comunda—E. Parry Sound	" 26
Trout Creek—E. Parry Sound	" 27
South River—E. Parry Sound	" 28
Sundridge—E. Parry Sound	" 29
Burk's Falls—E. Parry Sound	" 30
Midlothian—E. Parry Sound	July 2
Doe Lake—E. Parry Sound	" 3
Kearney—E. Parry Sound	" 4
Emsdale—E. Parry Sound	" 5
Sprucedale—E. Parry Sound	" 6
Magnetawan—E. Parry Sound	" 7

GOSSIP.
Mr. John Boyes, Jr., Churchill, Ont., breeder of Berkshire pigs, ordering a change in his advertisement, writes: "Your paper has brought me a lot of business, and I have a choice lot of young pigs to offer, sired by Maple Lodge Doctor 3rd and Concord Professor, and some sows ready to breed. I have on hand 60 head of different ages."

A LONG SERVICE IN THE EGG BUSINESS.

According to the Poultry Gazette, there died in Tennessee recently a hen that was known to be 22 years old. For nineteen years she laid eggs industriously, and it is estimated that she deposited 4,750 eggs, and hatched 570 chicks, "mostly girls." At the age of 19, however, she changed her habits, and spurned roosters, also refusing to lay or hatch any more. No doubt, she considered herself entitled to a superannuation. She was buried with honors the day after her death, and over her grave a marble tombstone is to be erected with the following inscription:

Here Lies
LAYING BETSY.
Born in 1883. Died in 1905.
She did many a fowl deed for those she loved.

Peace to her bones—let them lay—
May she lay again some other day.
If the eggs that Betsy laid during her nineteen years of faithful service were sold in the market at the present price, they would realize \$908.50. If her 570 chickens brought an average of 40c. each, they would represent a market value of \$171.

On this basis, Betsy earned \$1,079.50 for her owner before she retired from active duty and commenced to take life easy. This must be the fowl euphemistically referred to as the great American hen. We would like to get hold of a setting of eggs from her stock. What about our record-breaking Canadian hens? Let us hear from them.

Demand for all classes of commercial horses, says the Drovers' Journal, Chicago, is broader and more urgent than at any time the current year. Industrial conditions have improved in the past ten days, and great industries that were threatened by labor strikes have entered upon a new era of activity. The anthracite coal miners have repudiated their contentions and resumed work at the 1903 scale for three years. The structure iron laborers' strike, which threatened to tie up the building industry in Chicago, has been amicably settled, and commercial conditions which demand the employment of horses for their operation are now in a more stable and prosperous condition. The better industrial tone of the business world is reflected in the increased orders for all commercial classes of horses. Heavy drafters and expressers are particularly active at the top prices of the year. Wagon offerings are in broad request and all industrial classes are called for in increased volume. General receipts are a shade lighter, and outside and local demand find the supply hardly adequate to meet urgent orders.

The estimated receipts for the week are placed at 2,450, against 2,621 last week and 2,202 the corresponding week last year. While the offerings are liberal for the season, dealers find the supply unequal to the demand, notwithstanding prices hold steady at the highest level of the year.

Farm Lands IN SASKATCHEWAN

We have a number of well-improved farm lands for sale, at prices ranging from \$17.00 up to \$35.00 per acre.

We have the exclusive agency of over 40,000 acres of land west of Davidson, Goose Lake, Eagle Lake and South Battleford district. Some splendid bargains in city property.

Balfour Broadfoot Land Co.
Box 998. Hamilton Street. REGINA, SASK.

GASOLINE ENGINES



We are prepared to place the "STICKNEY" Gasoline Engine against anything on the market to-day in regard to Power Developed. Simplicity of Construction. Economy of Fuel.

Compare size of cylinders in our engines and others, and then JUDGE FOR YOURSELF.

ONT. WIND ENGINE & PUMP CO., Ltd.
TORONTO, CAN.

The Repository



Ger. Simcoe and Nelson Sts., Toronto

Auction Sales of Horses, Carriages, Buggies, Harness, etc., every Tuesday and Friday, at 11 o'clock.

Special Sales of Thoroughbred Stock conducted. Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

CLAYFIELD STOCK FARM

Now offers at reduced prices, for next 60 days,

CLYDESDALES

(8 head) mares and fillies; also one stallion, coming 2 years old. These are a first-class lot, some of which are winners at some of the best fairs in America. Also young Shorthorn cows and heifers, and two bulls, age 9 to 14 months.

J. C. ROSS, Prop., Jarvis, Ontario.

Imported Clydesdale Stallions and Fillies

Also Hackney Stallions for sale. At reasonable prices. Come and see them, or write to

Adam Dawson,
Cannington, Ontario.

Horse Owners! Use
GOMBAULT'S
Caustic
Balsam
A Safe, Speedy, and Positive Cure
 The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FILING. Impossible to produce scar or blemish. Every bottle 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.
 The Lawrence-Williams Co., Toronto, Ont.



HACKNEYS and
CLYDESDALES

From such noted champions as Baron's Pride, Hiawatha, Marcellus, Macgregor, Baron's Fashion and Lord Lothian, etc. Inspection invited.

For fuller description and prices, write
T. H. HASSARD, Millbrook, Ont.



ACCIDENTS will happen. The colts will get hurt. Any Soft Inflamed Bunch can be removed in a pleasing manner with
ABSORBINE
 No blister. No hair gone. Comfort for the horse. Profit for you. \$2.00 per bottle delivered. Book 4-D free.
 ABSORBINE, JR., for marking, \$1.00. Removes the black and blue from a bruise at once. Stop Toothache, Reduce Swellings. Genuine manufactured only by
 W. P. Young, P. D. F., 78 Monmouth St., Springfield, Mass.
 Canadian Agents, Lyman, Sons & Co., Montreal.



Clydesdales
 Having rented my farm, I wish to sell my Clydesdales, 14 head, young and old. Stud horse for last three years, Prince Grandan 9E39, bred by McLay Bros. Janesville, Wis. Stock all registered in the American Studbook. One mare imported from the American Studbook.
THOS. DENNISTOUN, SR.
 Redwood Falls, Minnesota, U. S.

CLYDESDALES
 Imp. Stallions and Fillies. The get of such notables as Baron's Pride, Prince Alexander, Moncrieffe Marquis, The Dean, Montrose Mac and Battle Axe; they combine size and quality, their breeding is unsurpassed, and I will sell them cheap.
GEO. G. STEWART, Howick, Que.
 Long-distance Phone.



A Bargain
 To avoid inbreeding, I will sell the best (imp.) Carriage Stallion in Canada. A grand stocker. Very gentle. Also the grand Jersey Stock Bull, Paul of Glen Rouge No. 62191. A good stock bull and very sure.
E. W. BROOKS, Trent Valley Stock Farm, Stirling, Ont.

J. M. Gardhouse, Weston P.O., Ont.
 Breeder of Clyde and Shire Horses, Short-horn Cattle, Leicester Sheep. Imported and home-bred. Stock for sale. My motto: "The best is none too good." C. P. R., G. T. R., and Street Railway, 10 miles west Toronto. Telephone at House and Farm.

DR. McGAHEY'S HEAVE CURE for Broken-winded Horses. The only medicine in the world that will stop heaves in three days, but for a permanent cure it requires from one-half to one bottle used according to directions. Price, \$1.50 per bottle. The Dr. McGAHEY Medicine Co., Kempsville, Ontario.



No more blind horses—For Specific Ophthalmia, Moon Blindness and other sore eyes. **BARRY CO.**, Iowa City, Iowa, have sure cure

SHORTHORN STOCK BULL FOR SALE to avoid inbreeding—Hector (imp.). Active, gentle and sure. **F. JACKSON, Downsview, Ontario.**

Special Seed and Weed Meetings.
 DIV. 1.

Special meetings of farmers will be held under the auspices of the Seed Division of the Dominion Department of Agriculture and the Farmers' Institutes of the Ontario Department of Agriculture. The following speakers will take part: Simpson Rennie, Toronto, Ont.; T. G. Raynor, Seed Division, Ottawa, June 5, 6 and 7; L. E. Amis, Scarborough, June 8 to 13.

*Hespeler—S. Waterloo	June 5
Dundee—S. Waterloo	" 6
*Waterloo—N. Waterloo	" 7
Embro—N. Oxford	" 8
Thamesford—N. Oxford	" 9
*Norwich—S. Oxford	" 11
*Burford—S. Brant	" 12
Onondaga—N. Brant	" 13
Port Rowan—S. Norfolk	" 14
*Vittoria—S. Norfolk	" 15
*Dutton—W. Elgin	" 16
Highgate—E. Kent	" 18
Blenheim—E. Kent	" 19
*S. Woodlee—N. Essex	" 20
*Appin—W. Middlesex	" 21
*Credition—S. Huron	" 22
*Brussels—E. Huron	" 22

DIV. 2.

Anthony Forester, Markham, June 5 to 23; D. James, Langstaff, June 5 to 14; T. G. Raynor, Seed Division, Ottawa, June 15 to 23.

Claude—Peel	June 5
*Shelburne—Dufferin	" 6
Dundalk—C. Grey	" 7
*Kimberley—C. Grey	" 8
*Durham—S. Grey	" 9
*Owen Sound—N. Grey	" 11
Meaford—N. Grey	" 12
*Duntroon—W. Simcoe	" 13
Creemore—W. Simcoe	" 14
Beeton—S. Simcoe	June 15
Palgrave—Peel	" 16
*Cookstown—S. Simcoe	" 18
Barrie—C. Simcoe	" 19
Randolph—C. Simcoe	" 20
*Elmvale—C. Simcoe	" 21
Minesing—C. Simcoe	" 22
Bradford—S. Simcoe	" 23

DIV. 3.

A. J. Reynolds, Scarboro, June 5 to 28; Geo. Carlaw, War'sworth, June 5 to 24th; T. G. Raynor, Seed Division, Ottawa, June 25 to 28.

*Thistleton—West York	June 5
Maple—West York	" 6
*Manchester—South Ontario	" 7
Unionville—E. York	" 8
Locust Hill—E. York	" 9
Bethesda—N. York	" 11
Claremont—S. Ontario	" 12
Taunton—S. Ontario	" 13
Port Perry—S. Ontario	" 14
*Uxbridge—N. Ontario	" 15
Udora—N. Ontario	" 16
Sutton West—N. York	" 18
Cannington—N. Ontario	" 19
Beaverton—N. Ontario	" 20
Woodville—W. Victoria	" 21
*Little Britain—W. Victoria	" 22
Warsaw—E. Peterboro	" 23
*Norwood—E. Peterboro	" 25
Lindsay—W. Victoria	" 26
Oakwood—W. Victoria	" 27
Stouffville—N. York	" 28

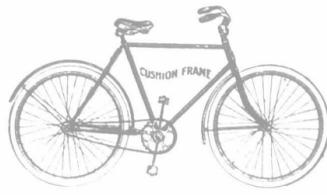
DIV. 4.

W. S. Fraser, Bradford, June 5 to 23; C. W. Nash, Toronto, June 5 to 23.

Solona—W. Durham	June 5
Tyrone—W. Durham	" 6
*Orono—W. Durham	" 7
Millbrook—E. Durham	" 8
Bailieboro—W. Peterboro	" 9
Garden Hill—E. Durham	" 11
Canton—E. Durham	" 12
*Cobourg—W. Northumberland	" 13
Warkworth—E. Northumberland	" 14
Hastings—E. Northumberland	" 15
Madoc—N. Hastings	" 16
Tweed—E. Hastings	" 18
*Frankford—W. Hastings	" 19
Belleville—W. Hastings	" 20
Ameliasburg—Pr. Edward	" 21
Newburgh—Lennox	" 22
*Stella—Amherst Is.	" 23

Annual meetings of Farmers' Institutes will be held at places indicated by a *

Time is Money



And no vehicle on the calendar equals the bicycle as a time-saver. A prominent doctor says: "Nothing can replace the bicycle. It stands in the hall when not in use, and when I get a hurry call, I literally grab my hat with one hand and my bicycle with the other, and I'm off."

BACK TO THE BICYCLE

The vehicle of utility and health, and when you think of bicycles you naturally think of one of the following bicycles as all that is best and up-to-date:

CLEVELAND PERFECT

SILVER RIBBON MASSEY BRANTFORD

Made in Cushion Frame or Rigid Frame Models.
 Up-to-date Equipment Sills Hygienic Handlebars.
 Morrow Coaster Brake.

CANADA CYCLE & MOTOR COMPANY, LTD.

"Makers of the World's Best Bicycles."

TORONTO JUNCTION,

ONTARIO.

WRITE FOR CATALOGUE.

The New and the Old

And it's pretty hard to say which is better

When we first put out the NEW FROST LOCK, we considered it an improvement over any other lock in the world. Privately, we still think so. But some of our old customers tell us they want FROST WEDGE LOCKS on the fences they are ordering. It's like trying to decide which is better—Holstein or Ayrshire cows.

Frost Locks on Frost Wire Fences

make the perfect combination for strength. FROST LOCKS lock the wires so they can't sag or hang. Do not bend, knot, crimp or kink them—the only device that honestly LOCKS two hard wires without injury to either. We'd like to send you a copy of our booklet—FREE. It tells the facts about Frost Fence, and some others worth knowing.

FROST WIRE FENCE CO. LIMITED

WINNIPEG, MAN

HAMILTON, ONT.

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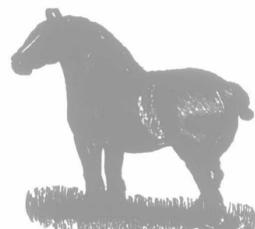
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"Cairnbrogie," CLAREMONT,

IMPORTERS OF

HACKNEYS and CLYDESDALES

Established 30 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.



Graham & Renfrew's
CLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is gilded. 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 4183.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

THE SCRATCH OF A NAIL

if neglected may cause the loss of a valuable horse. Wire cuts, snag wounds, saddle and harness galls, sore shoulders, all demand prompt attention. One application of HORSE COMFORT is invaluable to the horse owner—it relieves and cures every kind of sore, it repels flies and brings comfort to the horse. Cures sore teats in cows. Most dealers sell it or we will send it direct. Write for FREE "Horse Comfort" book. If you have a cow ask for book, "The Cost of a Lost Cow." Dairy Association Co., Mrs., Lyndonville, Vt.

HORSE COMFORT



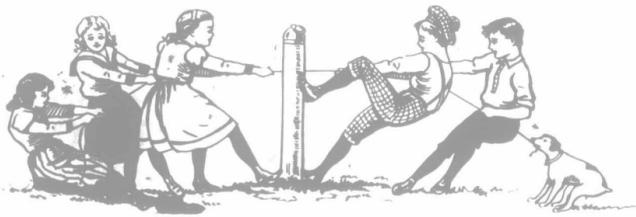
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LIMITED

Brantford, Ont.

Canada

**Eight Thousand
Small Shareholders.**

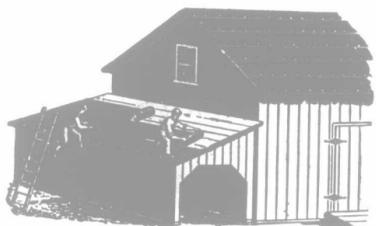
TESTED BINDER TWINE.



Only a Word, Farmers!

You can do as you please about co-operation. At the moment you have it within your grasp, if you allow it to slip the game is up, and you will everlastingly pay for your indifference in the neck. In 1893 this company reduced the price of twine from 18c. to 8½c. In 1898 we gave you the mill's entire output at 7½c., while our opponents held you up for 14c. and 15c., because there was a twine famine in the land. Have we a farmer agent in your locality? If not, write or telegraph us at once. This is all.

**Joseph Stratford,
General Manager.**



**Mica
Roofing**

For steep or flat roofs, waterproof, fireproof, easily laid, cheaper than other roofing. Send stamp for sample and mention this paper.

Hamilton Mica Roofing Co., 101 Rebecca St. HAMILTON, CANADA

**DIDSBURY
FARM
LANDS**

A SAMPLE OF WHAT WE HAVE

320 acres, level land, partly fenced; some improvements; good spring; within 1 mile of store, creamery and post office. This is only a sample, we have scores of others. Write us for full particulars of Alberta Lands.

COLLISON & REED, Didsbury, Alta.

ABERDEEN ANGUS CATTLE

For sale: a few good females of all ages, by imp. bull. Will sell right.

WALTER HALL, Washington, Ontario. Drumbo Station.

Aberdeen-Angus bull for sale, Black Diamond, No. 825, 3 years old this spring. A good individual and extra stock getter; has never been beaten in showing. Price reasonable. Also one Chester White boar, old enough for service.
A. G. SPAFFORD, Compton, Que.

DURHAM CATTLE FOR SALE

I have for sale two young bulls, 8 months old, sired by Imp. Rustic Chief = 40419 = (79877); also a few females, among them a young cow fit for any show-ring.

HUGH THOMSON, Box 556 St. Mary's, Ont.

HEREFORDS—We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you.
J. A. LOYERING, Coldwater P.O. and Etc.

Some Ideals for a Western University.

Dr. Gilbert B. Wilson, Winnipeg.

The true ideal of a University is encyclopaedic. It should have in view the whole circle of the Arts and Sciences. It cannot afford to ignore any segment of useful knowledge, however small. It should be the Alma Mater of all human Truth, the home of Universal Knowledge. To hold such an ideal before its development will deliver it from malformations and monstrosities, from being overloaded on the theoretical or the practical sides from being out of touch with life. The greatest Universities of the world have each five faculties: Theology, Arts (or Philosophy, as it is called by them), Law, Medicine (Human and Comparative or Veterinary), and Agriculture. Not only should each one of these faculties have a place in our future University system, but to them should be added the very comprehensive Faculty of Practical or Applied Science. While every branch of the Arts course is necessary and has its full justification, they are not all equally necessary, and they should find their way into the University programme and courses of study just in proportion as they can be most helpful to the common life of the people. In times past some of them have been born out of due time. In Canada the first chair ordinarily endowed has been classics; it should have been English, and the second should have been in this country Agriculture, and the third Pedagogics, both of which, unfortunately, have always appeared by far too late in the evolution.

Again, the whole theory of Politics, in its highest sense, the best methods of governing communities, towns, cities, the Province, the Dominion, the questions of Trade Tariffs, Transportation, Finance, Banking, Taxation, Wages, Public Sanitation, and a host of allied topics, are of more immediate importance, and should find a place on the curriculum of a University earlier than Mental Science and the History of Ancient and Medieval Philosophy. The reverse has generally been the case, with the result that in the earlier life of communities public sympathy has been withheld from institutions of higher learning, because these were unpractical, historically unadjusted, too widely divorced from the life and work of the community. On this topic more need not here be said; enough that the order of precedence has been indicated. The subjects of the various older branches of knowledge have been too well classified to require detailed reference or description; they fall into great natural groups of cognate sciences, and any man deemed worthy of a University degree should have fully and accurately mastered the main principles and more essential facts embraced in that particular group of studies which he has elected to pursue.

The comparative study of Law as a Science tends to simplify law, to modernize it, to bring it into direct and simple relation to daily life, to shorten its forms and make its terms easily intelligible to all. The lawyer ceases to be a leech, and becomes a friend of society; he helps men understand each other, keeps them from costly misunderstandings; helps them to adjust in the simplest, easiest and most direct manner their social, commercial and domestic relations.

Similarly to leave the equally noble science of Medicine to a close corporation of practitioners is bad for society, bad for medical men, and not the best thing for medical science. The Medical Science of the future will avoid as much as possible the use of drugs, will be hostile to all intoxicants and most stimulants, will simplify remedies, will seek to make known the laws of health and the symptoms of ill health. It will be largely preventive rather than mostly remedial. It will be interpretative of Nature to men. Pathology and Therapeutics will give place to Sanitation and Hygiene. It is the free, unselfish and enlightened air of the University that can make these splendid Arts and Sciences true friends, disinterested counsellors and valued servants of the common people.

AGRICULTURE AND APPLIED SCIENCE ARE TWO GREAT PROFESSIONS.

These two departments are Practical Science and Agriculture. Canada is just

(Continued on next page.)

**BROXWOOD
HEREFORDS.**

A few choice bull calves from my imported stock.

R. J. PENHALL, NOBER P. O., ONT.

**FIVE NICE, SMOOTH
HEREFORD BULLS
FOR SALE.**

Two about 16 months and three from 8 to 10 months old. Priced right to do business.

W. BENNETT, Chatham, Ont. Box 428.

THE SUNNYSIDE HEREFORDS

Twelve high-class bull calves and 4 yearling and 3-year-old bull, we will place at a price that will move them quick. Some choice cow and heifers are yet left for sale. Address: **A. F. O'NEIL,** Maple Grove P.O. or **M. H. O'NEIL,** Southgate P.O. **Ederton Sta., L. E. & B.; Lunenburg, G. T.**

ONTARIO'S LARGEST AND FINEST HERD OF HEREFORDS.—We sell our beauties to breeders all over Canada, because we sell our stock at much below their value. Come with the rest and get some of the bargains in 25 bulls a year old and over, 25 heifers and 20 cows, or write to have us save you some. (Farm inside the corporation of the town.) **A. S. HURTER,** Durham, 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. GOVERNOR,** Forest Sta. and P.O.

SHORTHORN BULLS

For Sale: Four nice young bulls; well grown; good coats; fit for service; by our imported Scotch bull, Magistrate; all registered in Canadian Shorthorn Herdbook. The lot for sale at \$300, or your choice for \$75. These bulls are good quality and very cheap. Apply

ANDREW SUMMERS, ALDERSHOT P. O., ONT. Valley Farm, Wm. Hendrie, Prop.

Wm. Grainger & Son

Hawthorn herd of deep-milking Shorthorns, Aberdeen Hero (imp.) at head of herd. Three grand young bulls, also females, all ages. Prices reasonable. **Landsborough Station and P. O.**

FOR SALE—A few young bulls from a few days to six months old; cows and heifers all ages; one bull (calved in May) with imp. British Statesman and imp. Diamond Jubilee on top of pedigree; also Loyd Duke = 55030 = (imp.) **FITZGERALD BROS., Mount St. Louis, ELMVALE STATION, G. T. R.**

High-class Shorthorns—We are now offering 5 young bulls and 3 heifers, two, three and four years of age. Marigolds, the eldest, a daughter of imp. Royal Member, has a calf at foot by Sailor Champion. This is an extra good lot. **THOS. REDMOND, Millbrook P.O. and Sta.**

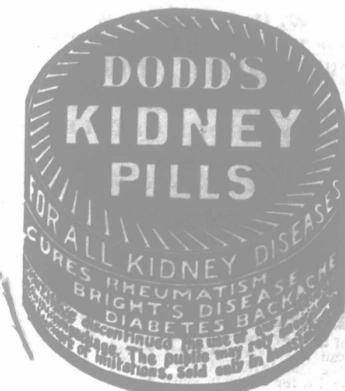
Shorthorns Bargains on Quick Sales.—One 10 mos. bull; weight, 900 lbs.; by imp. bull and great milking dam. Choice quality. Also cows and heifers. Write and get prices, etc. **A. M. SHAWER, Ancaster, Ont. Hamilton, G. T. R.; Mineral Springs, T. H. & B.**

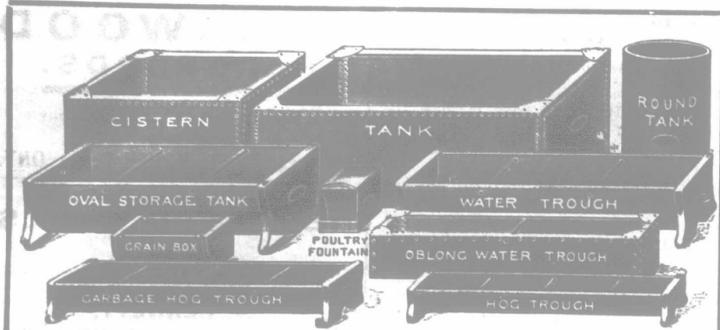
LAKEVIEW SHORTHORNS.

Sply King (imp.) at head of herd. Young bulls for sale reasonably. For prices, etc., apply to **THOS. ALLIN & BROS., Oshawa, Ont.**

What relation is the door-mat to the scraper? A step-father.

Who is the first man mentioned in the Bible? Chap 1.





We manufacture these—neat, natty, strongly built, made to last, made right. If you will paint them once a year, we will guarantee them for ten. Better than that—with reasonable care, they will last an ordinary lifetime.

Our faith in them is such that if they are not as represented when they reach your station, you may return them at our expense. Can we make you a fairer or more liberal offer?

You want them. You need them. Send order. Do it now. We will be delighted to correspond with you. Write us. Get our free catalogue. Ask your implement agent about them.

The Steel Trough & Machine Co., Ltd.,
5 JAMES STREET, TWEED, ONTARIO.

Established 1842.
FREE! FREE!! FREE!!! ABSOLUTELY FREE.
\$100,000 PRIZES GIVEN AWAY FREE.

As an advertisement we give you absolutely free a ladies' or gents' size silvered, gold-filled or gun-metal watch, guaranteed for 10 years, and keeps correct time to a second, or a sterling silver handle umbrella, silvered clock, a real diamond solid gold Government hall-marked stamped Ring, Cutlery, Leather Goods, Musical Instruments, Mechanical Toys, Blue Fox Collarette, besides hundreds of other useful or fancy articles which you can select from our grand 1906 list. We give any of these articles free to any person selling 20 packets of Beautiful, Up-to-date, Artistic Pictorial Postcards at 10 cents a packet (5 magnificent 10-colored cards to a packet). Our Pictorial cards are world-renowned, and we send you every card different, no two alike. Views of dear old England, Historical Views, Latest Comics, facsimile of Death-warrant of King Charles I., England's Most Beautiful Actresses, etc., etc. It need not cost you one cent of your own money. We pay all postage and duty, and deliver cards and present free to your address. Send us at once your name and address (postage is 2 cents). Don't delay. Write immediately to **AGTE & COMPANY (Dept. F. A.), 85 Fleet St., London, E. C., England.**

SCOTCH SHORTHORNS

9 heifers, yearlings. 4 bulls, yearlings.
29 heifers, calves. 27 bulls, calves.

All out of imported sires and dams.
Prices easy. Catalogue.

JOHN CLANCY, H. CARGILL & SON,
Manager. Cargill, Ont.

MAPLE SHADE SHORTHORNS
Cruikshank

and SHROPSHIRE SHEEP

We have now for sale one (imp.) bull, 15 months; also a good roan junior yearling show bull. Catalogue on application.

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

For Sale: Two Young Shorthorn Bulls

Also Cows and Heifers, and one good Imp. York. Sow, also a good Yorkshire Boar one year old. Good breeding and good animals

DAVID MILNE, ETHEL, ONT.
ELM GROVE SHORTHORNS

We have for sale some good young cows and heifers, of the Fashion and Belle Forest families, in calf to Scottish Rex (imp.) or Village Earl (imp.), our present herd bull. For prices and particulars address

W. G. SANDERS & SON,
Box 1133. St. Thomas, Ont.
CHAS. RANKIN, Wyebridge, Ont.
Importer and Breeder of

SHORTHORN CATTLE and OXFORD DOWN SHEEP.

FOR SALE—Females and bulls, of all ages from noted Scotch families.

PROSPECT STOCK FARM. For sale: 4 Shorthorn Bulls, including Gold Mine (imp. in dam), also some choice young females. Stations: Cookeville and Streetsville, C.P.R.; Brampton, G.T.R. Peel Co. F. A. Gardner, Britannia, Ont.

E. Jeffs & Son, BOND HEAD, ONT., breeders of Shorthorns, Leicesters, Berkshires, and Buff Orpington Fowls. Eggs per setting (15), \$1.00. Choice young stock for sale. Write for prices or come and see.

SCOTCH Shorthorns

A fine lot of imported cows with calves at foot, from first-class imp. sires. Also a fine lot of one and two year old heifers. Three high-class young bulls of the best quality and breeding at easy prices. Am taking orders for any breed of cattle, sheep or swine to be imported in time for the exhibitions the coming season.

H. J. DAVIS,
Importer and breeder of Shorthorns and Yorkshires,
WOODSTOCK, ONT.
C. P. R. and G. T. R. Main Lines.

Spring Grove Stock Farm
Shorthorn Cattle and Lincoln Sheep

First herd prize and sweepstakes Toronto Exhibition, 8 years in succession. Herd headed by the imported Duthie-bred bull, Rosy Morning, and White Hall Ramsden. Present crop of calves sired by Imp. Prince Sunbeam 1st, Toronto, 1906.

High-class Shorthorns of all ages for sale. om Also prize-winning Lincolns. Apply
T. E. ROBSON, Ilderton, Ont.

beginning to take its place in the world's race for commercial equality or supremacy. Rightly guided she should have no difficulty in leading the world in agriculture generally, and especially in Grain and Stock Production. The establishment of an Agricultural College with an Experimental Farm, the attention which the farmers are beginning to give to scientific agriculture, the interest which our Provincial Government manifests, the splendid services rendered by your own valuable paper—above all, the appointment of a number of well-trained, enthusiastic young Canadian experts on the staff of our Agricultural College—gives hope that at last our paramount agricultural interests are going to receive more careful attention and more adequate assistance.

THE NEED FOR TEACHING APPLIED SCIENCE.

The Faculty of Applied Science will also have abundant scope for invaluable service. It, along with Scientific Agriculture, will help to rid the mind of Young Canada of one of its most noxious weeds, viz., the idea that manual labor is undignified. It is only a question of time till the Doukhobor, the Galician, and other proletarian immigration will provide us with plenty of labor as cheap as can be purchased anywhere in Canada. Long before that we shall have plenty of cheap water power transmitted to us, transmuted into electrical energy. Already manufactures are beginning in the West, but only feebly. We should mill all our own grain and feed the by-products; we should make all our own starch, tan all our own hides, manufacture all our own binder twine, agricultural implements, shoes and leather goods, and do hundreds of other like things that we have not yet begun to dream about. In order that we fall not behind in the race, and thus become hewers of wood and drawers of water to our astute American cousins, we must give our boys such a thorough, practical education as shall leave them masters of the situation.

Nor will such practical education be as expensive as might at first be feared. Higher fees could be charged for its courses, and they would be cheerfully paid, as the effect of technical education on the earning power is so obvious and immediate. The young machinists and electrical experts could easily in their college vacations make enough money to pay their way in an expensive course. The product of the University machine shops, designing, drafting, modelling and charting work would be very considerable, and the Faculty of Applied Science might supply the whole group of the University buildings with heating, light and power. The makers of machines are among the emancipators of the human race, and the University of the future will be the home of invention. A National Museum (including many departments, e.g., industrial exhibits, prehistorical relics and historical treasures, geological, zoological and botanical specimens, etc.) and Schools of Music and Art, including architecture, should form a part of a comprehensive scheme of National Education. One of the first cares of any University should be to secure a building, however small, and place therein photographs and plaster casts (after copies) of all the great masterpieces in art. An Art Gallery is invaluable, and may be begun very simply and inexpensively. The culture of the imagination and taste has a direct influence upon national development, even upon industrial development. The nation which makes the neatest and most artistic clothes, hats, shoes, house decorations and general products will capture the world's markets, and the nations that lag behind will have to pay the price.

I have room only for a brief word as to the Professors. That is the most important matter of all. A true genius, who is at the same time a teacher, is worth three-score and ten times as much in the chair and at his feet would adorn any University. The rest of the Faculty might infer from this. We have had too much of posing and prosing and stagnation. Professors need to be men of learning, but they need also to be MEN, and learning to be men. Too many of them are like overgrown cattle, who drank in early years from their Alma Mater

(Continued on next page.)

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,
45 Church Street, Toronto, Ontario

SHORTHORNS & CLYDESDALES FOR SALE
Bull in service: Scotland's Fame = 47897 =, by Nonpareil Archer (imp.) (81778) = 45302 =, dam Flora 51st (imp.), (Vol. 19.) Present offerings: Two heifers rising 1 year old, two bulls rising 1 year old; also young cows and heifers of good quality and breeding, mostly well gone with calf. Also stallion rising 1 year old, sired by the well-known Macquesen, dam from imported sire and dam, and one filly rising one year, sired by King's Crest (imp.). Will sell at a bargain if taken soon.
JOHN FORGIE, Claremont P.O. & Sta.

Queenston Heights SHORTHORNS
I am offering extra value in yearling and two-year-old heifers. Bull calves that will make high-class sires.
Straight Scotch.

HUDSON USHER, Queenston, Ont.
Shorthorns and Berkshires
For Sale: The two-year-old show bull, Proud Archer = 4812 =, from an imported sire and dam of good milking strain, and ten fine young Berkshire sows, bred to our imported boar.

S. J. PEARSON, SON & CO.,
Meadowdale, Ontario.
Stations: Streetsville and Meadowdale, C.P.R.

HIGH-CLASS SHORTHORNS
The well-known Duthie-bred bull, Scottish Beau, imp. (36099), formerly at head of R. A. & J. A. Watt's herd, now heads my herd. Present offering: A few females of different ages. Also for sale, Clydesdale mare and yearling stallion colt; also choice Barred Plymouth Rock eggs for setting, \$1 per 15.

N. S. ROBERTSON, Arnprior, Ont.
CEDARDALE SHORTHORNS
For immediate sale: Four young bulls and a few heifers, a nice thick, well-put-up lot, and bred on heavy-milking lines. Will be sold cheap.
DR. T. S. SPROULE, M.P.,
Markdale, Ont.

Riverview Shorthorns and Oxfords
Shorthorns represent **Crimson Flowers, Athelstanes, Lady James and Roses.**

We have for sale three yearling bulls and some spring calves, also a few females. A thick, straight, mossy lot. Also some Oxford Down ram lambs.
Peter Cochran, Almonte P. O. and Station.

A. EDWARD MEYER,
Box 378, Guelph, Ont.
Scotch Shorthorns.

The Sunny Slope herd comprises Cruikshank Bellonas, Mysies, Villages, Brawith Buds, Broadhooks, Bruce Augustas, Mayflowers, Campbell Bessies, Urya, Minas, Clarets, Killblean Beautys. Herd bulls: Scottish Hero (imp.) (90665), a Shethin Rosemary, and Chief Ramsden = 62548 =, a Miss Ramsden. Correspondence solicited. Visitors welcome. Long-distance phone in house.

SCOTCH-TOPPED SHORTHORNS
Three young bulls, from nine to thirteen months old; also several young heifers by Scottish Baron (imp.) for sale. Prices reasonable.

H. GOLDING & SONS, Thamesford, Ont
Stations: Thamesford, C.P.R.; Ingersoll, G.T.R.

For Shorthorns—One young bull, 14 months old; cows and heifers, all ages. Shropshires, all ages and both sexes.
BELL BROS.,
"The Cedars" Stock Farm, Bradford, Ont.

WILLOW BANK STOCK FARM
Established 1855. Will offer imported Rosiercun of Dalhousie = 4520 =. Recorded in both Dominion and American herdbooks. Also young stock of either sex. "Shorthorns."
James Douglas, Caledonia, Ontario.

Oak Grove Shorthorns—Present offering: heifer, aged 18 months, all sired by Imp. Nonpareil Archer and out of imp. dams; also the stock from the N. H. Duke a choice offering.
Harold G. W. J. ISAAC, Cobourg Station.

THE YOUNG SHORTHORN BULLS
One, both from heavy-milking dams, \$7.00 each. Write or call on
EARL COMERFORD, Eldorado, Ont.

Dairy Talks by the EMPIRE Maid—No. 2

Whatever Else You Do Don't Buy a Hard-to-Turn Separator.

There's a big difference in the way cream separators turn—a big difference in the amount of effort on your part that they require. You want the easy turner, especially when it will do as good or better work than the hard-turner. You use a cream separator twice a day, week-day and Sunday, the year round. If it turns hard, it gets to be a mighty disagreeable task before you have done with it. The thing for you to do then, is to get an



Improved Frictionless Empire

There's no doubt about the kind of work it will do for you. It gets practically all the cream—no separator can do more than that—and it turns with just one-half the effort required for turning other separators. This is why: In the first place, the EMPIRE bowl is smaller than other bowls having the same capacity. Then instead of being filled with heavy discs and complicated parts, it has only a few simple, light cones inside it.

Being smaller and lighter it does not require nearly the power to turn it. That's plain. And that is not all. The spindle of the EMPIRE bowl revolves with practically no friction. The lower end of the spindle rests in a three-ball bearing upon which it spins like a top on its point. Around the upper neck of the spindle is another bearing which prevents all friction and all vibrations so noticeable in other bowls. If you will examine these bearings, you will understand why the EMPIRE bowl runs so easily. No other separator ever made is so free from friction. We hold strong basic patents on this method of construction.

This easy-running is only one feature in which the EMPIRE excels. If you are thinking of buying a new separator—or if you have one of the back-breaking, hard to turn, hard to wash kinds of separator, just send a postal card, telling how many cows you keep and what you do with the milk, and learn more facts about separators. You will be interested in our free Dairy Books. Just address:

Empire Cream Separator Company of Canada, Ltd.,
Toronto, Ontario.

GET THE EMPIRE BOOKS. Ask for the one you want—1. Full catalog and price list. 2. Dairy Results—Dollars. 3. Money and the Way to Make It.

MAPLE GROVE SHORTHORNS

Imp. and Canadian-bred.
Males and females, as good types as the breed produces. With breeding unsurpassed.

C. D. Wager,
Enterprise Stn. & P.O., Addington Co.

GLENAYON STOCK FARM
Shorthorns and Berkshires

I have 5 Berkshire boars ready to wean, will sell them at \$6, delivered to any station in Ontario, and a Shorthorn bull calf, which I will sell cheap.

W. B. ROBERTS, Sparta P.O.
Station: St. Thomas, C.P.R., M.C.R., G.T.R.

R. A. & J. A. Watt, Salem, Ont.
Elope Station on the G. T. and C. P. R.

Home of the first and third prize aged herds, Canadian National, Toronto, 1905. Mayflower, grand champion Toronto and Winnipeg, 1904-05; Olga Stamford, grand champion New York State Fair, 1905; Gem of Ballechin, grand champion Toronto, 1903; Tiny Maude, reserve senior champion Toronto and Winnipeg, 1905; Mildred's Royal and other leading winners. A choice number on hand to make your selection from at all times.

KENWOOD STOCK FARM.
SHORTHORNS.

Headed by (Imp.) Jilt Victor = 45187 =, 10 grand young bulls; also heifers; from imp. and home-bred cows, for sale. Choice Lincoln sheep; Berkshire and Tamworth hogs offered.

HAINING BROS., Highgate, Ont. Kent Co.

SHORTHORN BULLS
FOR SALE

1 roan calf, 15 months old, of the Duchess of Gloster family.

1 roan, two years old, from imp. sire and dam. Also a number of good registered Clyde mares.

JOHN MILLER, Brougham, Ont.

Shorthorn Cattle and Lincoln Sheep

Shorthorn bulls, cows and heifers for sale at greatly reduced prices for the next 60 days.

J. T. GIBSON, Denfield, Ont.

Hillhurst Shorthorns

Registered bull calves for sale, by Broad Scotch = 46315 =, from imported English and home-bred dams of good milking strains.

JAS. A. COCHRANE, Compton, P. Q.



ARTHUR JOHNSTON Greenwood, Ont.

Offers for sale, at moderate prices,

12 high-class yearling BULLS

All sired by imported bulls, and most of them from imported dams.

Also imported and home-bred cows and heifers of all ages.

GREENGILL HERD
of high-class

SHORTHORNS

We offer ten young bulls ready for service, a number of them from imported sire and dam; also high-class females, all ages, either imported or Canadian-bred. The herd is headed by (Imp.) Lord Resberry.

R. MITCHELL & SONS,
Nelson P.O., Ont.; Burlington Junc. Sta.

PLEASANT VALLEY
SHORTHORNS

Herd headed by imp. Old Lancaster = 50068 =, Grand champion, Toronto, 1905, and consisting of females of the leading Scotch families; can spare a few young cows bred to imp. Old Lancaster.

GEO. AMOS & SON, Moffat Stn. and P.O., C.P.R.

Pine Grove Stock Farm.
Breeders of

High-class Scotch Shorthorns.

Choice Shropshire Sheep, Clydesdale and Hackney Horses.

Herd catalogue on application. Address:

JAMES SMITH, Supt., Rockland, Ont.
W. C. EDWARDS & Co., Limited Props. om

Maple Lodge Stock Farm

I am offering an excellent dark roan imported bull, nearly three years old, for sale. Also one yearling bull, and a few choice heifers of milking strains.

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

immense quantities of milk, took first prize as yearlings, and then became, and have remained ever since, wizened, withered and hide-bound. A Professor must needs be a dynamic man, a man of marked personality. His business is not merely to recite facts, but to influence, mould, make—if need be, re-make—men intellectually and in some respects morally. Very few of our professors are really men of inspiration. Many of them are learned blockheads, out of touch with life, and not even attempting to guide the life currents of the nation. Moreover, not a few of them are too old. They should all be placed on half-pay and half-work at sixty, and permitted to retire at sixty-five or seventy.

The greatest mind the German people has produced died with the words "More light" upon his lips. That sentiment should inspire not only our educational but all our national strivings. This young nation, buoyant with physical energy, heir to vast material wealth, taking long strides towards nationhood, but confronted by many and grave problems, feels its intellectual longing best expressed by Tennyson:

"Tis life of which our nerves are scant,
Oh life, not death, for which we pant,
More life and fuller that we want."

GOSSIP.

A MUTUAL CONGRATULATION SOCIETY.

Following is a sample of the intermittent dialogue continually participated in by two ardent breed journals, the Jersey Bulletin and the Holstein-Friesian Register. There has been a little discussion of late in certain quarters about the use of the word "milk," as used in the expression "new milch cows," which it has been proposed to substitute with "milk." A recent issue of the Jersey Bulletin says: "You can't blame the Holstein folks for defending the word 'milch.' It sounds so damp and succulent, and then, it comes from the same country as the cow."

Whereupon its esteemed contemporary jumps upon it with high-heeled sole leather:

"Wrong again! You entertainingly incorrect, inaccurate, stupid, blundering, wrong-headed old ignoramus, did you ever get anything right? Did you ever open your mouth without inserting your foot in it? Pretermitt your comic twattle, and bend your ears from the zenith long enough to hear and learn that 'milch' belongs not to Holland, the home of the unsurpassable Holstein-Friesian cow, but to Germany. In Holland, it is 'melk.' Probably Holland and Germany are one to you, but you should be careful to maintain a dignified silence when in doubt, and really you should be in doubt just about 100 per cent. of the time, and when you feel inclined to 'explatiate' on butter-fat percentages or geographical matters, don't do it! Your immeasurable unenlightenedness is funny, of course, and the 'Holstein folks' are not in the least degree worried by the damp and succulent character of your utterances. We 'Holstein folks' in following custom and the dictionaries do not 'defend' the word 'milch,' and we do not 'offend' geography by confounding Holland with Germany. The churn, not etymology or geography, is your forte. Stick to your churn!"

TRADE TOPIC.

THE EUREKA PLANTER COMPANY, of Woodstock, is calling special attention in its advertisement this week to its new combination wagon box and rack. This is a very ingenious device of warranted quality, strength and durability. It requires only a minute's time and no tools to make any of the half-dozen different changes in position converting it into such shapes as to make it suitable for any kind of a load which a farmer might wish to put upon a wagon. It is well worth looking into.

BLOOD HUMORS

**PIMPLES
BLOTCHES
ERUPTIONS
FLESHWORMS
HUMORS**

Many an otherwise beautiful and attractive face is sadly marred by unsightly blotches, pimples, eruptions, fleshworms and humors, and various other blood diseases.

Their presence is a source of embarrassment to those afflicted, as well as pain and regret to their friends.

Many a cheek and brow—cast in the mould of grace and beauty—have been sadly defaced, their attractiveness lost, and their possessor rendered unhappy for years.

Why, then, consent to rest under this cloud of embarrassment?

There is an effectual remedy for all these defects, it is,

BURDOCK BLOOD BITTERS

This remedy will drive out all the impurities from the blood and leave the complexion healthy and clear.

Miss Annie Tobin, Madoc, Ont., writes: "I take great pleasure in recommending your Burdock Blood Bitters to any one who may be troubled with pimples on the face. I paid out money to doctors, but could not get cured, and was almost discouraged, and despaired of ever getting rid of them. I thought I would give B. B. B. a trial, so got two bottles, and before I had taken them I was completely cured and have had no sign of pimples since."

Burdock Blood Bitters has been manufactured by The T. Milburn Co., Limited, for over 30 years, and has cured thousands in that time. Do not accept a substitute which unscrupulous dealers say is "just as good." "It can't be."

PURE SCOTCH SHORTHORNS

Herd bulls: Imp. Prime Favorite = 45214 =, a Marr Princess Royal.

Imp. Scottish Pride = 36106 =, a Marr Roan Lady.

Present offering

2 imported bulls.

15 imported cows with heifer calves at foot and bred again.

20 one- and two-year-old heifers.

Visitors welcome. New catalogue just issued.

W. G. PETTIT & SONS, Freeman, Ont.

Burlington Jct. Sta. Long-distance telephone in residence.

JOHN GARDHOUSE & SONS, Highfield P.O., Ont.

Breeders of

Scotch and Scotch-topped Shorthorns, Lincoln and Leicester Sheep, and Shire Horses.

A good selection of young stock of both sexes always on hand for sale. Scottish Prince (Imp.), Vol. 49, at head of herd. Royal Albert (Imp.), 20867, at head of stud. Farms 23 miles from Weston, G. T. B. and C. P. R., and electric cars from Toronto.

SHORTHORNS AND LINCOLNS.

Present offerings: 4 choice young bulls 9 to 14 months; also a few good heifers, Lincolns, descended from the best English stocks.

JOHN LEE & SONS,
Highgate, Ont.

40 miles west St. Thomas, on M.C.E.R. & P.M. Ry.

SHORTHORNS

Imp. Keith Baron 36050. Six young bulls from 10 to 18 months old. A lot of 2-year-old heifers in calf and a few young cows. A bunch of heifer calves, cheap.

CLYDESDALES

Just now: One pair of matched geldings 5 and 6 years old; show team.

JAS. McARTHUR, Goble's, Ont.

Brown Lee Shorthorns—Present offering is 3 young bulls from 9 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beauclerk. Prices very reasonable.

DOUGLAS BROWN, Avy P.O. and Station.

SPRING VALLEY SHORTHORNS.

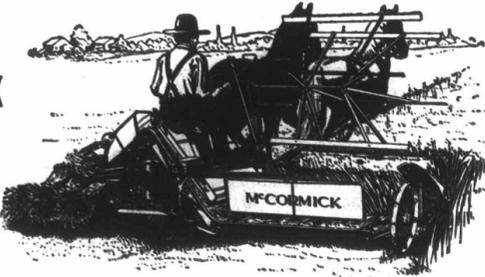
Herd headed by Imp. Bapton Chancelor = 40859 = (78286). A choice lot of females, mostly with calves at foot or safe in calf. Also a good six-month-old bull calf. Inspection and correspondence invited.

KYLE BROS., Avy P.O.
Avy, C.P.R.; Paris, G.T.R.

Sunnyside Stock Farm—8 superior young Shorthorn bulls for sale. All from imp. bulls, four from imp. cows. Good enough to place at head of any herd. Apply

JAMES GIBB, Brookdale P.O. and Telephone

The McCormick Binder



A BINDER is necessarily an important machine. All the more necessary for avoiding mistakes, by getting something of standard kind.

All McCormick harvesting machines are recognized as the standard in their particular line.

And especially is this true of the binder.

Here are a few of the reasons why:

- The main frame forms a rigid and solid foundation for the machine to rest upon.
- The drive chain is strong and durable.
- The machine is equipped with roller bearings.
- Hence it is exceedingly light in draft.
- It has an improved clutch.
- Its countershaft cannot become wound with straw.
- Wide range of adjustment on reel—lifts high in cutting rye and other tall grain and lowers to pick up down grain.
- Both the main and grain wheels are provided with raising and lowering devices, so that

the machine can be adjusted to any height of stubble.

But you want to know, too, about the knottor, the beautiful simplicity, the adjustment, the work.

And you want to know them thoroughly and in detail.

We can only mention them here, just to put you in mind.

But be assured you cannot know too much about the binder you buy.

We provide a way for everybody to know.

In addition to grain and corn harvesting machines the McCormick line embraces Mowers, various styles and sizes of Hay Rakes, Hay Stacks and Binder Twine.

Call on the McCormick Agent for information or write nearest branch house for catalog.

CANADIAN BRANCHES: Calgary, London, Montreal, Ottawa, Regina, St. John, Toronto, Winnipeg.

INTERNATIONAL HARVESTER CO. OF AMERICA, CHICAGO, U. S. A. (INCORPORATED.)



Washed in 1 minute.

Count the pieces—notice the difference—and you'll understand why the one who has to do the cleaning prefers the simple Sharples Tubular.

There are other advantages just as much in favor of the Tubular. Write to day for catalog V-193—it tells you all about the gain, use, and choice of a separator.

The Sharples Separator Co.,
West Chester, Pa.

Toronto, Can. Chicago, Ill.

A Big Difference

One Minute's Washing as compared to at least fifteen. Wouldn't you like to save at least fourteen minutes twice a day? One minute with a cloth and brush cleans the absolutely simple Sharples Dairy Tubular Cream Separator bowl shown in the upper picture. It takes fifteen minutes to half an hour with a cloth and something to dig out dents, grooves, corners and holes to clean other bowls—one of which is shown in lower picture.



Washed in 15 to 30 minutes.

I Have Imported

more prizewinning and high-class breeding sheep in the past twenty years than all other importers combined.

I WILL IMPORT anything you may need this year in cattle or sheep. Will leave for England on the 18th May. My address there will be: Care of Alfred Mansell & Co., Shrewsbury, Eng.

Robt. Miller, Stouffville, Ont.

GEO. D. FLETCHER,

Breeder of Scotch Shorthorn Cattle, Yorkshire Pigs,

and S.-C. White Leghorn fowl. Herd headed by the Duthie-bred bull (imp.) Joy of Morning =3070=, winner of first prize at Dominion Exhibition, Toronto, 1903. Young stock for sale. Eggs for hatching 75c. per setting.

Binkham P. O., Ont. Erin Station and Telegraph

BARREN COW CURE makes animals breed. Abortive Cow Cure prevents animals aborting. Cures guaranteed or money refunded.

L. F. SELLECK, Morrisburg, Ont.

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 telephone. WM. SMITH, Columbus, P. O. Brooklyn and Myrtle Sts.

BELMAR PARK SHORTHORNS

40 bull calves.
16 heifers under two years.
All of the choicest breeding and practically all of show yard quality. You can buy anything in the herd at a reasonable figure.

JOHN DOUGLAS, Manager. PETER WHITE, JR., Pembroke, Ont.

SHORTHORN BULLS and HEIFERS

Sired by the Scotch bull, Scottish Lad 45061

FOR SALE. S. DYMENT, Barrie, Ontario.

Glover Lea Stock Farm SHORTHORNS

FOR SALE: Choice bull calves by Golden Cross (imp.). All dark roans. Some from imported sire and dam. Visitors met at Ripley station.

R. H. REID, PINE RIVER, ONT. Ripley Station, G. T. R.

Pine Ridge Jerseys—Present offering: Some good young cows and a choice lot of heifers, all ages, from 4 months up; also some good Cotswold sheep (registered). WILLIAM WILLIS, Newmarket, Ont.

For Jersey Bull, registered, Sale: excellent St. Lambert strain. Large and handsome. Golden lawn color. Age five years. Gentle and sure stock getter. MARSHALL BROS., Inglebrook Jersey Herd, Crowland, Ont.

QUESTIONS AND ANSWERS.

Miscellaneous.

GRAZING IN DENMARK—POINTS IN MILKING.

1. How many months in the year can cattle graze in Denmark?
2. Which is the correct way to milk a cow, front teats first, or crosswise?
3. Is it apt to decrease flow of milk by milking crosswise?
4. Is a cow more likely to calve in daylight, if you finish milking her on a Sunday?

Ans.—1. From 5½ to 6 months in each year.

2. Some authorities recommend milking the front quarters first, then the hind quarters, in preference to milking crosswise. The latter has its advocates too. I should say that a good, thorough milker can get good results either way.

3. I do not see why it should.

4. I do not know. [Note.—We do not think so.—Editor.] C. MARKER.

"GOVERNMENT STANDARD SEED"

I am sending you a sample of clover seed. Is it pure clover? If there are any noxious weeds in it let me know the names of them. Is Government-tested seed supposed to be pure and clean from weeds? D. McE.

Ans.—Our expert finds the seed to contain: green fofxtail, lamb's-quarters, timothy, alsike and redtop. While this sample of red clover is not pure, there are none of the noxious weed seeds in it which are mentioned in the Seed Control Act. With regard to Government-tested seed, or perhaps it might be better put "Government standard seed," which is the term used by the seedsmen this year without authority whatever from the Government, this does not mean absolutely pure seed. It does mean, however, that it may be sold subject to the Seed Control Act, and may mean anything from No. 1 seed, which should be practically free from noxious weed seeds, to the limit of what is allowed to be sold under the Act mentioned in section 6, which is, namely, 5 noxious weed seeds per 1,000 of the sample.

T. G. RAYNOR.

OXEN IN ALBERTA.

1. What are the advantages and disadvantages of oxen for work on a farmstead in Alberta compared with horses, also what is the price in that Province?

2. What are the prices of live stock and implements in Alberta compared with Ontario? SUBSCRIBER.

Ans.—1. Advantages: (1) The initial expense is less—an important point with the average homesteader. (2) Oxen will stand rougher usage, and do with less feed and care than horses. Breaking tough prairie sod, especially if partly covered with brush, is pretty stiff work, and soon puts a rough edge on even the best of horses, and well-broken oxen will do mighty good work, for they are steady, tenacious fighters on a hard draw. The disadvantages loom up when you think of using them on the road or for light work on the farm. They are slower than anything else on earth, at least so the average settler claims. In Alberta, they usually harness them with collars, and even use bridles very similar to those used on the horses. This saves considerable temptation to profanity. The price is a more difficult problem to answer. It varies largely with the district. In the newly-settled portions, oxen are high, because well-broken teams are scarce. From one hundred to one hundred and fifty dollars per team, and even higher in some places, would be about the usual price. Unbroken steers would be worth from thirty dollars up, depending on condition, size, and quality.

2. Range cows, or ordinary ones, are worth from twenty dollars up. Milch cows bring from thirty to fifty dollars. Horses are a little higher priced than in Ontario, though not so very much. Implements will cost from fifteen to twenty-five per cent. more than in Ontario, freight and greater expense of working and living being the cause. If "Subscriber" is thinking of coming to Alberta, he had better bring all the money he can—freight rates are heavy on money. At farmers' sales, there is generally a discount of eight per cent. for cash, and an interest charge of the same amount on the rest. Subscriber can figure out for himself the importance of CASH in such conditions. R. J. P.

True Economy.

Refraining from expenditure is not always economy. It is often the reverse. Refraining from spending money on unnecessary luxuries is economy, but the refusal to invest money to advantage when opportunity occurs to invest it legitimately in one's own business is the reverse of economy.

The average farmer, when animals go off their feed, does not hesitate to invest in a package of Herbageum, because he knows positively that Herbageum will put the animal right. This is economy. The same farmer, however, may refuse to feed Herbageum regularly to his growing pigs, his milch cows or to his young calves. This is the reverse of economy. True, he apparently saves the price of the Herbageum immediately in sight, but the time and feed saved by the regular use of Herbageum in the production of pork, milk and beef is lost to him by this refusal to invest economically the price of Herbageum for regular feeding to his stock.

HIGHGROVE JERSEY HERD.

Our present offering is: a few choice heifer calves from 2 to 8 months old, which, considering quality, will be sold reasonable.

ROBT. TUFTS & SON, Tweed P. O. & Sta.

Brampton Jersey Herd

We have now for immediate sale 10 bulls, from 6 to 18 months old, descended from St. Lambert or imported stock; also females of all ages. In order to reduce our stock, we are making a special offer. For full particulars, address, B. H. BULL & SON, Phone 68. Brampton, Ont.

An extra nice Jersey Bull, fit for yearling vice. Also two bull calves. Prices reasonable.

F. S. WETHERALL, - Rushton Farm Cookshire, Que.

Cows from the

ANNANDALE HOLSTEIN HERD

Have won during the past show season at Ottawa first and sweepstakes on cow, first on 3-year-old, first on 2-year-old class. At Guelph (dairy test) first and sweepstakes on cow, first and second in heifers. At Chicago (National) first and sweepstakes on cow, also second-prize cow, second and third on 2-year-olds, second on 1-year-old heifers, and a host of other prizes (different cows at different shows).

Bull calves, 4 months and under only, for sale from great dams and greatest of sires. Buy young if you want them from Annandale Stock Farm.

GEO. RICE, Tillsonburg, Ont.

WOODBINE HOLSTEINS

Herd headed by Sir Mechthilde Posch, absolutely the best official-backed sire in Canada. Dam Lanthe Jewel Mechthilde, 25.8 pounds butter in seven days. Champion cow of Canada over all breeds. Sire's dam, Aaltje Posch (ib), holds the world's largest two-day public test record—8.6 pounds butter. Young bulls of the choicest quality for sale.

A. KENNEDY, Agr. Ont.

Ayr, C.P.R.; Paris, G.T.R.

A FEW HOLSTEIN BULLS

fit for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me.

G. W. CLEMONS, St. George, Ont.

Lyndale Holsteins.

For Sale A number of bull calves from one to four months old, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, whose four nearest dams have official butter records averaging 22 lbs. 11 oz. each. BROWN BROS., LYN, ONT.

Centre and Hill View Holsteins

We have four yearling bulls left which we will sell at reduced price to quick buyers; from good producing strain; our own raising. Sold out of females at present. P. D. EDE, Oxford Centre P. O., Woodstock Station, C.P.R. and G. T. R.

HOLSTEINS AND CHESTER WHITES.

Our Holsteins are producers and prizewinners. Young bulls and a few choice heifers for sale, also some extra good young Chester White pigs, both sexes. D. G. GOODERHAM, Thornhill P. O. G. T. R. and street cars.

MAPLE GROVE HOLSTEIN-FRIESIANS

For Sale: Three bull calves, sired by Lord Wayne Mechthilde Calamity, and all out of Advanced Registry cows. Apply

WALBURN RIVERS, Falden's Corners.

Grove Hill Holsteins—Herd contains 55 head, a number of which are in the advanced registry. Our stock bulls have all been backed up by high records. Present offering: Several young bulls and a few females. F. R. MALLORY, Frankford P. O. and Sta., C. O. R.

"GLENABOY" HOLSTEINS

We have for immediate sale several young bulls, and a number of young females, that for ideal type and superior quality, backed up by glided breeding, are unsurpassed.

G. MACINTYRE, Ranfrew P. O. and Sta.

IMPERIAL STOCK FARM HOLSTEINS

A prizewinning herd of imported, officially tested stock. Bulls of all ages for sale, also a few cows. W. H. SIMMONS, New Durham, Ontario.

MEN

You are Cured First,
Then You Pay.
If You are not Cured
You Need Not Pay.

Your case will be accepted for treatment on the following proposition:

1. If you doctor here, you will receive the services of an EXPERIENCED SPECIALIST.
2. Your case will receive most careful attention each time you call or write.
3. YOU MAY PAY AFTER YOU ARE CURED.



Nervous Debility

The Latest Method Treatment is a heaven-sent boon to nervous sufferers. There are scores and hundreds of persons suffering from severe nervous disorders resulting from overwork, hurry, worry, business and domestic cares, bereavements, dissipation, etc. To them life is one continual round of misery, while peace, comfort and joy, mental depression, strange sensations, dizziness, dullness, restlessness, weakness, trembling, heart palpitation, cold limbs, utter fatigue and exhaustion. In this class of cases almost immediate relief is afforded by my treatment, while the cure itself is a permanent and lasting one.

BLOOD POISON

If you have traces of it you are in constant danger until cured; there is no stand still in diseases of this kind; you cannot tell how soon the poison will affect the other organs of the body; have patches, sores breaking out, sore bones, hair falling out, itching skin? Call to see me, and receive a written guarantee of a cure, and you may

DR. S. GOLDBERG.
Located in Detroit since 1895. The possessor of 14 Diplomas and Certificates, makes Diseases of Men a specialty, and allows the patient to pay after cured.

PAY WHEN CURED

I cure Nervous Debility, Varicocele, Stricture, Early Decay and Waste of Power, all Nervous, Chronic, Blood and Skin Diseases.

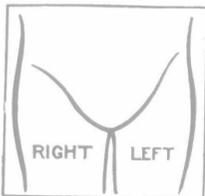
X-RAY EXAMINATION, ADVICE AND CONSULTATION FREE

Office hours from 9:00 a. m. to 7:30 p. m.; while on Sundays from 9:30 a. m. to 2:30 p. m. Patients who cannot call may write for question blank and book containing diplomas free; everything held honorably confidential. Medicine for Canadian patients sent from Windsor, Ont. All duty and transportation charges prepaid.

DR. GOLDBERG, 208 Woodward Ave. Suite 636, DETROIT.

THE NEW QUICK WAY TO CURE RUPTURE

Is Without Operation, No Pain, No Danger, No Loss of time From Daily Work.



This Remarkable Simple NEW WAY TO CURE RUPTURE has opened up a new era in the treating of this terrible dangerous, dreaded, hitherto considered incurable malady, Rupture. You ruptured people who have borne the painful agonies of Rupture surely will be glad to see this notice, for it means a NEW lease of life for you—one free from pain and suffering. Won't it be grand to be cured? You can be sure—hundreds of Canadians have been. Cut out this notice. Mark on the diagram position of Rupture. Answer questions and send all to me at once. I will send you Free A FREE TEST to show you how quickly you can be cured right in your own home. I'll also send you a valuable Book of Information for the Ruptured. You must write for these at once. Remember they are FREE. No ruptured person who has had these would part with them for money. You wouldn't either. Write at once.

DR. W. S. RICE, 2 1/2 East Queen St., Block 279 Toronto, Ont.

Do you wear a truss? Does rupture pain?

On which side ruptured? Ever operated on for rupture?

Age Time ruptured

Name Address



Burnside Ayrshires

Imported and Canadian-bred. Prizewinners at all the leading shows. I hold the award of merit given by the Bd. of Dir. of World's Fair, St. Louis, to the breeder of largest number of prizewinning Ayrshires at said Exposition. Females of all ages for sale, imported and Canadian-bred.

R. R. NESS, JR., HOWICK, QUE., P.O. AND STATION.
Any orders sent me during my stay in Scotland, care of A. MITCHELL, ESQ., Barroheskie, Kirkcudbright, Scotland, will have my careful attention.

HOLSTEINS FOR SALE

Four imported and one home-bred bulls, from 8 to 12 months old; also our entire crop of spring bull calves, from week old up, sired by the grandly-bred imp. bull, Sir Howitje H. Pietertje, whose dam record is over 82 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.

Maple Glen Holsteins—Three sons of Sir Altra Posch Beets, whose grandam holds world's largest official record for her age, and grandsire has over 60 tested A. R. O. daughters—the most by any bull on record. Brother of Aggie Cornucopia. Secure the best. **C. J. GILROY & SON, Glen Buell, Ont.**

Glenwood Stock Farm—Holsteins and Yorkshires.
Holsteins all sold out. Have a few young Yorkshires sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **THOS. B. CARLAW & SON, Warkworth P.O., Campbellford Stn.**

Holsteins, Tamworths, Oxford & Dorset SHEEP FOR SALE.

At present we have 1 young bull, 8 Oxford ram lambs, Dorsets, 1 yearling and 1 aged ram, Tamworths, both sexes. **J. A. Richardson, South March P.O. and Stn.**

HOLSTEINS AND YORKSHIRES
R. HONEY, Brickley,
offers for sale a choice lot of young boars fit for service; also sows ready to mate.

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths. Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Hilton P.O., Brighton Tel. and Stn.**

Maple Cliff Dairy and Stock Farm
Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times. **R. REID & CO., Hintonburg, Ont.**
Farm adjoins Central Experimental Farm.

Progress Canadian National Records.

The Dominion Shorthorn Breeders' Association.—Daily averages for first week in May: 24 certificates; 8 transfers. The applications received during May are usually very small, as shown by a comparison during April and May of 1905: Certificates in April, 1905, 1,240; certificates in May, 1905, 516. Volume 22 of the Shorthorn Herdbook is in the hands of the printers, and the pedigrees of 3,500 of the bulls have been printed. The printer states that it should be completed by September. It is expected that volume 23, containing copies of pedigrees recorded during 1906, will be commenced at an early date, and should be completed early in 1907.

	Pedigrees recorded.	Certificates issued.	Transfers recorded.
Jan.	1,192	1,518	260
Feb.	1,219	1,517	239
March.	1,217	1,447	417
April.	828	1,066	284
Total.	4,456	5,548	1,200

Amount to credit of Shorthorn Breeders' Association in the Imperial Bank, Ottawa, on May 11th, \$9,809.04.

The Canadian Hereford Breeders' Association.—Daily averages for first week in May: 11 certificates. The fourth volume of the Hereford Herdbook closed on May 1st, and there are 2,700 pedigrees ready for the printer. The pedigrees recorded since the 1st of January, 575. Amount to credit of this Association, on May 11th, \$924.28.

The Canadian Aberdeen-Angus Association.—This Association has just been incorporated. There is \$162.12 to the credit of this Association.

Galloway Breeders' Association.—This Association is incorporated, and 100 pedigrees have been recorded. The amount of money to the credit of this Association is \$43.30.

The Canadian Red-Polled Association.—There is also an association incorporated for Red-Poll cattle.

The Dominion Ayrshire Breeders' Association.—The daily average for first week of May, 14. The 15th volume of the herdbook is about completed. The number of pedigrees recorded since the 1st of January, 616. The amount of money to the credit of this Association on May 11th was \$1,188.43.

The Canadian Jersey Cattle Club.—There have been 56 Jerseys recorded since the first of January. The amount to the credit of this Association on May 11th was \$27.25.

Guernsey Breeders' Association.—There is also an association incorporated for Guernseys.

The Shire Horse Association of Canada.—The amount to the credit of this Association on May 11th was \$71.93. There were 27 pedigrees recorded since January.

Clydesdale Horse Association.—The amount to the credit of this Association on May 11th was \$1,521.39.

	Pedigrees Recorded.	Transfers Recorded.
January.	64	16
February.	112	24
March.	115	88
April.	286	184
	577	312

Canadian Hackney Horse Society.—The amount to the credit of this Association on May 11th was \$126.53. There were 26 pedigrees recorded since January.

Dominion Swine Breeders' Association.—The daily average of pedigrees recorded for the first week in May was 28. The number of pedigrees recorded since the 1st of January, 1906, was 1,906. The amount to the credit of this Association on May 11th, \$1,184.07.

What is it a horse has, a cow has not, and once the U. S. had it and lost it? A Maine.

When may you be said to literally "drink in" music? When you have a piano-for-tea.

In what tongue did Balaam's donkey speak? Probably in the Hebray-ic.

Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy. **FLEMING BROS., Chemists, 45 Church Street, Toronto, Ontario**

AYRSHIRES

The famous Reford Herd at St. Anne de Bellevue, Que., now owned by Sir William C. Macdonald.

Several yearling bulls for sale; also a number of bull calves, Quality and appearance extra good, bred from the best milking strains, noted for robust constitution and large teats. For particulars apply to

MACDONALD COLLEGE
St. Anne de Bellevue, Quebec.

AYRSHIRES and YORKSHIRES

An August, 1904, bull of a choice dairy strain. A March, 1905, bull calf, very stylish, a winner. Several young calves of good breeding; cheap to quick buyers. Some real good 2-year-old heifers in calf. Orders booked for young pigs. Correspondence solicited.

ALEX. HUME & CO., Menie P. O., Ont.

AYRSHIRES—Choice stock of either sex, different ages, for sale. Prices reasonable. For particulars apply to **N. DYMENT, Hilsbury Hill Stock Farm, Quidas Stn. & Tel. O. Clapton, Ont.**

SPRING BURN STOCK FARM, North Williamsburg, Ont.
H. J. WHITTEKER & SONS, Farmers,
Breeders of Pure-bred Ayrshire Cattle, Oxford Down Sheep, Berkshire Pigs and Buff Orpington Fowls. Young stock for sale. Eggs for hatching, \$1 for 13, and \$4 per 100.

HIGH CLASS AYRSHIRE CATTLE
Bulls and heifer calves, two to nine months old, cows and heifers all ages. Prizewinners from this herd include Tom Brown and White Floss, sweepstakes at Chicago. **DAVID BERNING & SON, "Glenhurst," Williamstown, Ont.**

Select Ayrshire Bulls—A right good one, 18 months old. Four choice last Aug. and Sept. calves. Special low price on five March and one May calves. **W. W. BALLANTYNE, Stratford Ont., Neidpath Farm.**

Wardend Ayrshires We are offering young bulls from 1 to 2 years old; also a choice lot of spring calves from deep milking dams. Sired by White Prince of Menie No 1895; bred by A. Hume, Menie, F. W. TAYLOR, Wellman's Corners, Hoard's Stn., G. T. R.

STOCKWOOD AYRSHIRES FOR SALE
Have some nice February calves for \$30 each, out of heavy milking dams. Sire Pearl Stone of Glenora; also some nice young cows and heifers. **D. M. WATT, Allan's Corners, Que.**

Wool, Hides CALFSKINS, ETC.

If you have anything to offer, write for our prices; it will pay you.

E. T. CARTER & CO., TORONTO.

FAIRVIEW SHROPSHIRE

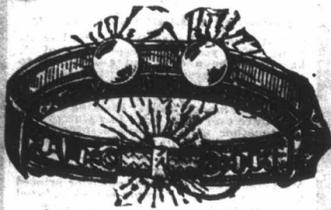
Have the world's record for the largest per head winnings at the greatest of world's fairs—St. Louis. Also have the record for their 99 years in the leading show-rings, including three world's fairs, of winning more first and champion prizes than all competitors combined. Do you need a few real good ewes? Or a choice ram to head your flock? If so, write for circular and quotations to **JOHN CAMPBELL, Fairview Farm, Woodville, Ont.**

GOTSWOLD SHEEP

From one of the largest breeders in the home of the breed. We have bred the prizewinners at the leading English shows. Address: **W. HOULTON, Broadfield Farm, Northleach, Glos., ENGLAND; or S. HOULTON, Calgary, ALBERTA, Canadian representative.**

My Electric Belt

Without Cost Until Cured.



To men who are run down, weak and puny, and who have lost the force of vitality, who feel gloomy, despondent and unable to battle with the affairs of life; who have Rheumatism, Back Pains, Weak Stomach and Kidneys, and feel generally as if they needed to be made over. If that means you, come to me and if I say that I can cure you I will give my belt free

Until You Are Cured

If you will give me reasonable security, I don't want money that I don't earn. I don't need it, and am not after it. But I am after the dollars that are now going wrong in the quest of health. Look at all these poor wrecks of humanity that are spending all they earn on drugs—drugs that are paralyzing their vital organs—that have spent all they have earned for years without gaining a pound of strength for the hundreds of dollars wasted.

That is the money that I am after, because for every dollar I take I can give a thousand per cent. interest, and I don't want it at all until I have cured you if you will secure me. I have cured so many cases right here that I can prove my claims to you, but if that proof is not enough, I'll give you the names of men right near you—where you are. Is that fair. Just lately I have received letters of praise from these men:

JAS. JOHNSTON, J.P., Ottawa, Ont., says: "I was cured of heart disease and stomach trouble in August, 1903, and have never experienced a return of it in over two years."

JEROME SCANLON, Ancaster, Ont., writes: "In one month's use of your Belt I have gained seven pounds. No bladder trouble, constipation, or headache any more, and have developed a lot of muscle and strength. Thanks for your help."

Wherever you are, I think I can give you the name of a man in your town that I have cured. Just send me your address and let me try. This is my twenty-fourth year in the business of pumping new vim into wornout humanity, and I've got cures in nearly every town on the map.

Come and see me if you can, and I'll fix you up, or, if you can't call write to me, and I'll do the same. I've got a nice book on men that I'll send, sealed, free, if you inclose this ad. Consultation free.

I HAVE A BOOK ESPECIALLY FOR WOMEN.
Dr. W. S. McLaughlin, 112 Yonge Street, Toronto, Canada.

Please send me your Free Book, closely sealed, and oblige.

NAME.....

ADDRESS.....

HILLGREST HERD OF ENGLISH BERKSHIRES

For Sale: A lot of very choice young things of various ages. We prepay express charges and guarantee satisfaction. Enquiries promptly answered.
Vine Sta., G. T. R., near Barrie. JOHN LAHMER, Vine P.O., Ont.

Shropshire & Cotswold Sheep

SCOTCH SHORTHORNS and CLYDESDALES



Choice ram and ewe lambs. Also 50 shearing ewes for sale. Apply to

JOHN BRIGHT, Myrtle Station, Ontario. BROAD LEA OXFORDS.

Present offerings are 28 ranch shearing rams, seven shearing ewes, one show ewe four years old. Will also book orders for ewe and ram lambs from imported ram. Correspondence promptly answered. Visitors always welcome.

R. R. Stations: Mildmay, G. T. R. W. H. ARKELL, Teeswater, O.P.R. Teeswater, Ont. DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Woppareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand.

JOHN A. MCGILLIVRAY, North Toronto, Ontario. SOUTHDOWNS

Having sold short, I am now booking orders for future delivery of show and breeding flocks.

COLLIES

At Stud, Holyrood Clinker, Just imported. Fee \$10.00.

Robt. McEwen, Byron, Ont.

Mount Pleasant Herd of Tamworths and Heistons. A large herd of choice pigs of all ages on hand. Mount Pleasant type of hogs are profitable breeders and ideal bacon hogs. Pairs not skinned. Herd headed by Colwill's Choice No. 1343. Won sweepstakes and silver medal at Toronto, 1901-2-3. Also a few bulls.

Bertram Hoskin, The Gully

Tamworths and Dorset Horn Sheep. A choice lot of pigs of different ages and both sexes. Some fine shearing rams and ewe lambs. JAMES DICKSON, Orono, Ontario, "Glenside Farm."

NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle

Boars ready for service, and sows bred and ready to breed, and a whole lot of beauties from 3 to 4 months, both sexes. Pairs supplied not skinned. Our younger stock are mostly all the get of Newcastle Warrior, winner of sweepstakes and silver medal at Toronto, 1905. We also offer our present stock bull, Donald of Hillhurst, No. 44690, son of Imp. Joy of Morning, as his heifers are new of breeding age, together with a few choice heifers and cows in calf to above bull. All inquiries answered promptly. Daily mail at our door. COLWILL BROS., Newcastle, Ontario.

MONKLAND YORKSHIRES

Imported and 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 skinned. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS, FERGUS, ONT. G. T. R. and C. P. R. Long-distance Phone

WOODSTOCK HERD OF BERKSHIRES

Have for sale young pigs. Both sexes. Of March and April farrow. All from Imp. sires. I can supply pairs not skinned at reasonable prices. Imp. Pelgate Doctor. DOUGLAS THOMSON, Box 1, Woodstock, Ont.

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 skinned; express charges prepaid; pedigrees and safe delivery guaranteed. Address: E. D. GEORGE, Putnam, Ont.

YORKSHIRES

Two grand (imp. in dam) sows, bred to farrow in June, to a show boar; also a young litter ready to ship in April. Orders booked ahead and satisfaction guaranteed.

L. HOEY, Powrie's Corners P.O., Fenelon Falls Station

Elmfield Yorkshires

Have still a few choice young boars from Summer Hill Chester, some young sows from imp. sire and dam; also a fine lot of suckers coming on. A few sows 7 months old, bred again. G. B. MUMA, Ayr P.O. Ayr and Paris stations.

Rosebank Berkshires

FOR SALE: Young stock from six to eight weeks old; sired by Maple Lodge Doctor and Concord Professor. Some choice sows bred and ready to breed. Express prepaid.

JOHN BOYES, JR., CHURCHILL P. O. Lefroy Station, G. T. R.

QUESTIONS AND ANSWERS. Miscellaneous.

A PATENT RIGHT.

1. What is the law regarding patents?

2. Can a farmer, or anyone, make an article for himself, which is patented, it being intended for his own use and not made to sell? C. W. S., Ontario.

Ans.—1. A patent of invention gives the inventor the exclusive benefit of his invention throughout a limited period of time.

2. No; that is to say, not without permission from the patentee.

WATERWAY CAUSING TROUBLE.

To my query, answered in your issue of April 12th, "Waterway Causing Trouble," re the township council furnishing free sewer pipes for an outlet to the highway, you did not know how many years ago the waterway was opened up on front of my farm, or how long since my claim for sewer pipes had been made. I myself do not know how long since this waterway was opened, having owned the farm for only a short time, but it may have been 20 or 30 years ago. My claim for sewer pipes, however, was made only last fall. Previously, the owner of farm kept this culvert in repair with wooden material, at his own expense. I know of a farmer in another county, situated under similar circumstances, who was furnished with sewer pipes free by his municipal board. Kindly state the law governing this point. SUBSCRIBER.

Ans.—There was, apparently, acquiescence on the part of your predecessor in the ownership of the farm, and that circumstance, in addition to the great length of time that the state of things you have described in respect of the waterway has subsisted, would most probably render any litigation over it with the municipal corporation fruitless; and we can only repeat our recommendation of 12th April last, that you "make the best arrangements you can with the council."

PERMANENT PASTURE FOR HILLSIDES.

I have a few hillsides that I am seeding with oats, also seeding down for pasture, as I do not want to plow any more. What is best kind to sow? Alfalfa might be all right, but stock do not seem to relish it. What about white clover? Is it hard to get a catch of white clover sowing with oats? How many pounds should be sown to the acre? Is the seed dear? Where would I get it? R. J. McR.

Ans.—Your stock is evidently not used to lucerne, but they will soon come to like it better than any grass or clover. We have seen cattle turned into a pasture where there was lucerne a foot high, and timothy, but four or five inches. In a short time the lucerne was eaten to the ground, the stock preferring it even to tender timothy. Sow lucerne, and have no fear of the animals refusing to eat it. We just wonder, as we write, whether it is possible that you have mistaken sweet clover (Melilotus officinale or Melilotus alba) for lucerne. This is a very coarse-growing and bitter plant, and is not relished by stock, though they will learn in time to eat even sweet clover when it is young. White clover is a fair pasture plant, but by no means so productive as lucerne.

It is rather late now to sow any seeds with oats, but if it is desired to try it, we would suggest a mixture of: lucerne, 8 lbs.; white clover, 3 lbs.; red clover, 2 lbs.; orchard grass, 5 lbs.; tall oat grass, 3 lbs.; meadow fescue, 3 lbs.; Kentucky blue grass, 3 lbs.; timothy, 2 lbs., per acre. We highly commend seeding such land to pasture, and believe in sowing a large quantity and a good variety of seeds. Safer to sow without nurse crop, or, at any rate, with a light seeding of about a bushel of grain per acre.

In this country, white clover is seldom or never sown alone, but the rate of seeding is about the same as for alfalfa. The price of the seed varies, usually running about \$7 to \$9 per bushel. We notice the leading firms of seeds have it quoted this year at 20c. to 25c. per lb. for small quantities.

THREE Trying Times in A WOMAN'S LIFE

WHEN MILBURN'S HEART AND NERVE PILLS

are almost an absolute necessity towards her future health.

The first when she is just budding from girlhood into the full bloom of womanhood.

The second period that constitutes a special drain on the system is during pregnancy.

The third and the one most liable to leave heart and nerve troubles is during "change of life."

In all three periods Milburn's Heart and Nerve Pills will prove of wonderful value to tide over the time. Mrs. James King, Cornwall, Ont., writes: "I was troubled very much with heart trouble—the cause being to a great extent due to 'change of life.' I have been taking your Heart and Nerve Pills for some time, and mean to continue doing so, as I can truthfully say they are the best remedy I have ever used for building up the system. You are at liberty to use this statement for the benefit of other sufferers."

Price 50 cents per box or three boxes for \$1.25, all dealers or The T. Milburn Co., Limited, Toronto Ont.

Asthma CURED TO STAY CURED.

We give prompt relief and permanent freedom from Asthma. Our latest Book, No. 57F, will be mailed on request. DR. HAYES, Buffalo, N. Y.

LARGE ENGLISH YORKSHIRES



Pigs of the most approved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd 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. C. FLATT & SON, Millgrove, Ont. RIVER VIEW FARM



ROBERT CLARKE Importer and Breeder of Chester White Swine

Pigs shipped not skinned to each other. For price and particulars, write 41 Cooper Street, OTTAWA, ONT.

Oakdale Berkshires



Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not skinned.

L. E. MORGAN, Milliken Stn. and P. O.

Glenburn Herd of YORKSHIRES

Now on hand, a number of sows, 5 and 8 months old, for spring farrow; also a large number of September sows and bears. Booking orders for spring pigs. DAVID BARR, JR., Box 3, Renfrew, Ont.

GLENHODSON YORKSHIRES AND POULTRY.

Sows bred or ready to breed, from choice imp stock, also young pigs, for sale. Buff Orpington, B. P. Rock and White Wyandotte eggs for hatchment at \$1 for 15.

GLENHODSON COMPANY, Myrtle Station, Ont. Long distance phone at farm. Lorne Foster, Mgr.

Ohio Improved Chester Whites

100 PIGS to Offer of the long, deep, heavy-boned, breeding stock selected from the most noted families, with a superior quality and quality. Booking orders for spring pigs; also a few left for sale. Pairs furnished not skinned. Express charges prepaid. Pedigrees and safe arrival guaranteed.

H. E. GEORGE, Crampton, Ont. IMPROVED YORKSHIRES FOR SALE Young stock also pairs not skinned for May breeding. GEO. M. SMITH, Haysville, Ont.