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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

PUBLISHED AT LONDON, ONTARIO. JULY 21, 1904. WINNIPEG, MANITOBA. No. 617

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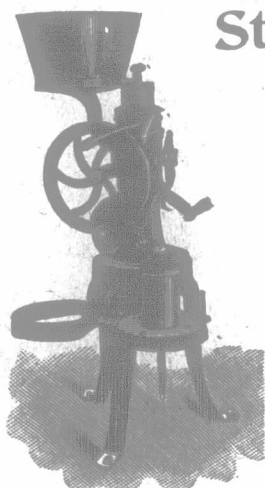
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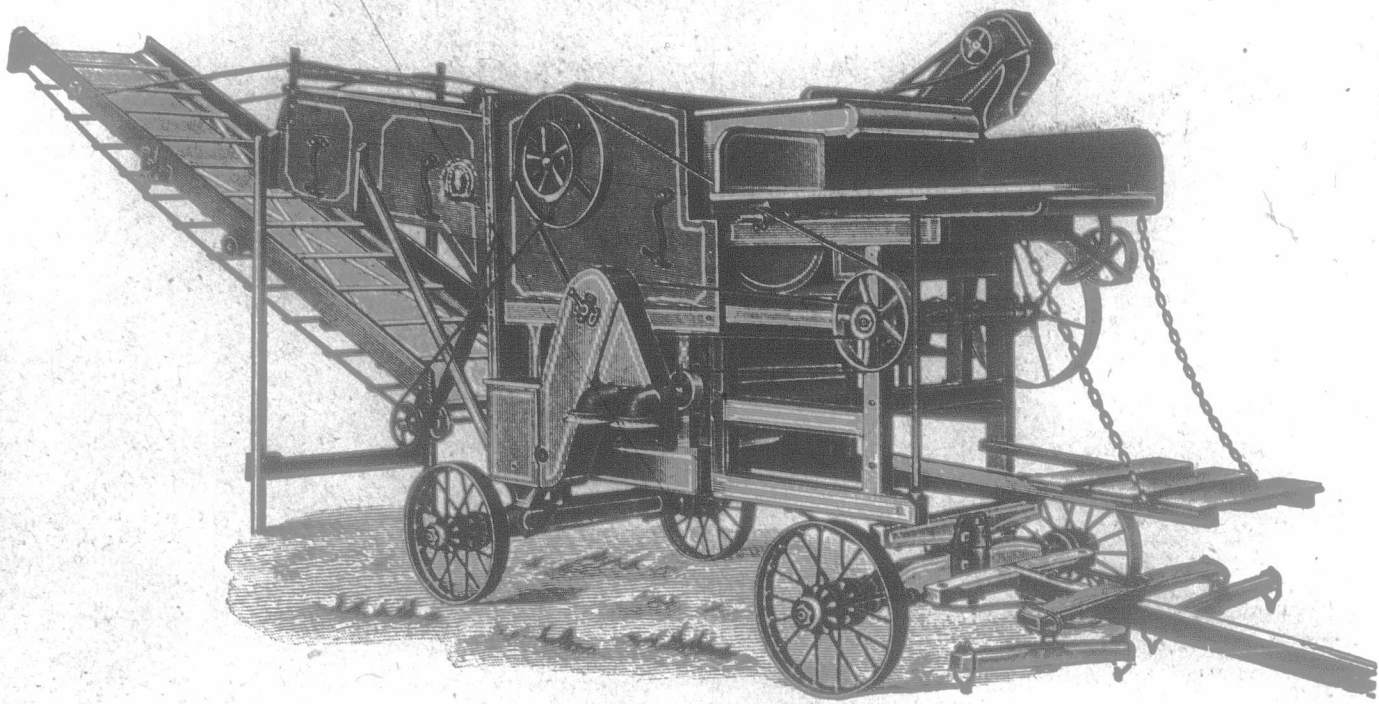
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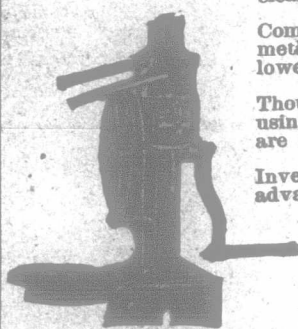
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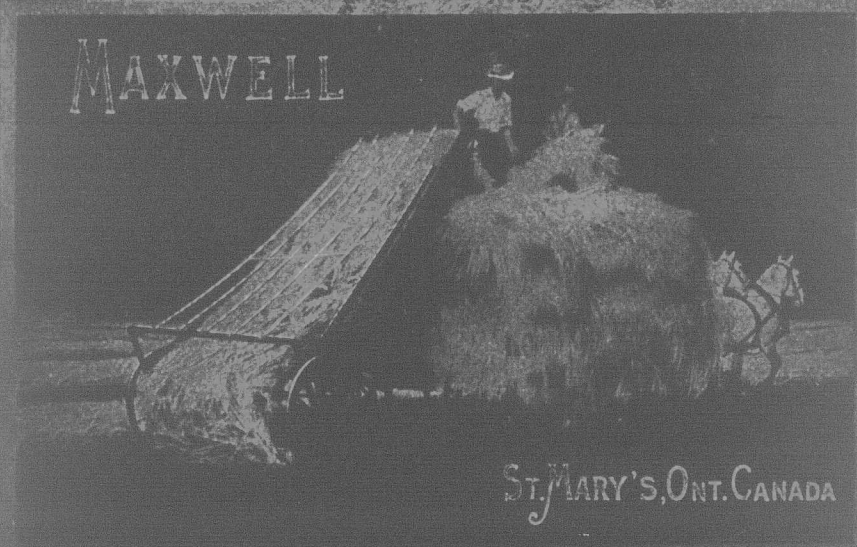
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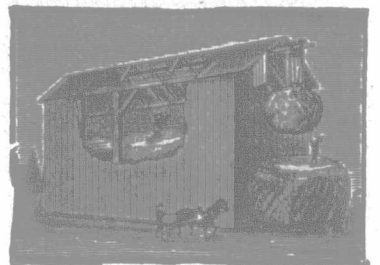


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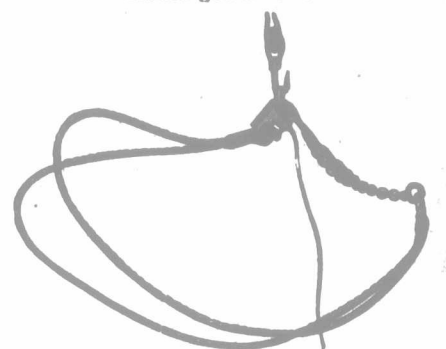
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The Farmer's Advocate and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866

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VOL. XXXIX.

LONDON, ONT., AND WINNIPEG, MAN., JULY 21, 1904.

No. 617

EDITORIAL.

Declare War on Weeds.

With good growing weather and a scarcity of farm laborers, we are having presented to us a horrible spectacle of the manner in which weeds may disfigure and pollute the earth. The condition of our farming at present is such as to admirably favor the growth of weeds. Land is so valuable we cannot afford to summer-fallow, even if we believed in it, and labor so scarce and high priced, that weeds cannot be properly managed to prevent their spreading. Of course, we cannot expect land to become cheaper, but it is to be hoped that as the population becomes denser, the land will repay extra labor expended upon it to keep it clean of weeds.

Within the past two or three years, the spectacle presented along roadsides and railways is most harassing to those who are aware of the injuries caused by the unhindered growth of weeds on these highways. Municipal authorities and railroad managers seem to be entirely oblivious to the injury weeds are doing the country, for no other avenue is utilized by weeds for dissemination purposes as is the railway. Last week, a thoroughly practical farmer, and one who is endeavoring to keep his own farm clear, and also the roadsides adjoining, brought into our office two large bunches of weeds that had been introduced into his property by the agency of a new railroad. In the lot were included black mustard, hedge mustard, tall mustard, wild mustard, bindweed, black bindweed, high mallow, tansy, annual sow thistle, peppergrass, ox-eye daisy, blue-weed, shepherd's-purse, burdock, pigweed, toad flax, several varieties of dock, fleabane, and a few others. All these were found growing in the richest profusion along the railway embankment. Such neglect might be excused the railway companies were it not for the fact that this spring a policy of retrenchment was instituted, and men were discharged in hundreds. Should the railway companies not be compelled to prevent weeds on their roadways spreading, and is it not in their own interests to do so? We would not take a pessimistic view of the situation, and anticipate the day when the reclaiming of the abandoned farms in Ontario will be an engrossing subject, but certain it is if there is not a more thorough warfare made upon weeds by the legislatures, corporations and individual farmers, the work of clearing farms will have to be done over again, and it is questionable if the clearing of weeds will be less arduous than the clearing of forests.

One of our readers, the other day, estimated that on a 100-acre farm the absolute waste from weeds would amount to the produce of no less than five acres of fertile land. Do farmers generally realize this? And cannot the careless man who allows his farm to become a weed nursery for the locality, or the careless seedsman who stocks a customer's farm with some dangerous weed pest, be made to feel that the injury they are inflicting upon others is in reality tantamount to robbery, just as truly as watering or skimming milk or some other forms of wrong-doing or carelessness which are made amenable to law. With such frightful object lessons as that above cited before them, railway and municipal authorities all over Canada should wake up to the magnitude of the evil, and Farmers' Institutes and the Seed Division of the Dominion Department of Agriculture should renew and continue their efforts to abate what is to-day probably the most alarming menace confronting agriculture in this country.

Conduct of Auction Sales.

While freely admitting that there are times and circumstances in which auction sales of pure-bred stock are desirable as a ready means of meeting an emergency, such as the necessity of dispersing a herd or closing a business, we believe the general opinion of experienced breeders is, that taken on the whole, in this country more satisfactory sales and purchases are effected by private contract than at public auctions. The breeder who raises really good stock, keeps it in good condition, and lets the world know he has it for sale, seldom fails to find purchasers for all he can spare, at prices that compare favorably with those obtained at auction, when the expenses connected with the making of the sale are taken into consideration. There is no other place where animals look so well as in their own stables or pastures; no other place where the buyer can secure so much information as to the breeding or record of the animal, and the character of its family connections; and no other place where all the conditions for calm consideration and a full understanding between seller and buyer are so favorable. The catch phrase, "buying at your own price," is really no more applicable at an auction than in a private deal, for in the latter case one need not pay the price asked unless he is suited, and satisfied that the animal is worth the money to him. On the other hand, it is true that as a rule, except in the case of the dispersion of a herd, breeders do not risk their best or most desirable animals in a public offering.

When, a few years ago, a scheme devised by Government officials for holding pure-bred stock sales under their auspices was being exploited, the "Farmer's Advocate" took a stand in opposition to it, believing that advantage would be taken of such an opportunity to get rid of inferior stock, that the prices obtained at these sales would be regarded by the public as the standard of values for pure-bred stock, and that this would militate against the interests of breeders without corresponding advantage to the general buyer. In this position we were supported by most of the advanced breeders, and the history of these sales has clearly borne out our predictions. Evidences of devious and deceitful practices to raise the reported average have been exposed, these sales have dwindled to offerings practically of but one breed, and the character of the bulk of the offerings has been quite below par. The principle of combination sales on a limited scale has also been given a fair trial in this country in the last few years, and while the demand for a certain breed was buoyant, while something like a boom was in progress and first-class animals were offered, the contributors treating the public fairly and squarely, the results were satisfactory; but when such sales are made a dumping ground for stock bought up for speculation and doubtful methods resorted to for the protection of the better class from depreciation in value, public confidence is forfeited and the whole industry injured.

To our mind, there is no valid reason for objection to the seller claiming the right to a reserve price on his stock in case the bids received do not reach his view of their value, but this right should be claimed in the announcement of the sale. Even in the absence of such announcement, the public rarely object to the withdrawal of an animal in case the bids are considered by the owner too low to justify the sale, but to descend

to the practice of employing decoy bidders to protect the offerings, without any consideration for those who have gone to the expense of attending the sale, is indefensible, a violation of business ethics and of the confidence of bona-fide buyers, and is a practice which no self-respecting salesman can afford to permit. We have known instances of such conduct being promptly and publicly exposed and reproved by the officiating auctioneer, with credit to himself and with the most salutary effect upon the sale.

The Basis of the Egg Business.

Notwithstanding the increased attention paid to the development of the poultry industry in Canada during recent years, the continued high price of eggs, as well as dressed birds, in most parts of the country, has been a matter of surprise to a great many people. In most cases, this has been attributed to improvements in transportation facilities and the growth of exports, but, as a matter of fact, the exports have been falling off, both in poultry and eggs. The export of eggs last year (1903) amounted to \$1,436,130, showing a decrease compared with any one of the previous years. In the agricultural press, poultry-rearing and egg-production have deservedly occupied a great deal of space, and have been made a conspicuous feature of experimental farm work, and the Dominion Illustration Stations have made poultry fattening and export a specialty. Undoubtedly, poultry-raising is being more generally, systematically and intelligently carried on. Notwithstanding all this, how, then, is the decrease of exports to be accounted for? The explanation, doubtless, arises from the growth of home consumption and the good prices obtainable for eggs and dressed birds in Canadian cities and towns. The population of the country is rapidly increasing, particularly through immigration, trade is buoyant, industries are running at high pressure, and prices are naturally good for nearly all sorts of food products under such conditions. The "Farmer's Advocate" was, the other day, assured by one of the largest and oldest egg dealers in Canada that the home consumption of eggs had practically tripled within a very few years, and this was to be attributed in large measure to the attitude of the medical profession in the prevention and treatment of a wide range of diseases of a wasting character, relying upon nutrition by the use of eggs and milk, rather than of dependence upon medicines. For convalescents, too, and in a great variety of forms, the use of eggs has marvellously increased, and this bids fair to continue for many years to come. With the British market, which absorbs, in addition to what is produced at home, some \$26,000,000 worth of eggs annually, as a safety valve, Canadians can with every prospect of continued profit cultivate the poultry business. It does not involve large investments, it is safe, less laborious than some other lines of farm work, and if the flock should ever cease to be profitable it can readily be reduced. In England, Canadian eggs, on account of their large size and appearance, are growing in popularity, and if proper attention is paid to their selection, packing and transport, that market may be relied upon with a great deal of confidence.

Verdict of a Business Firm.

You will see by your books that Brooks & Langmaid each take the "Farmer's Advocate," as J. W. Brooks and T. A. Langmaid. We are very much pleased with it as a weekly.

Durham Co., Ont. BROOKS & LANGMAID.

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PUBLISHED WEEKLY BY
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WESTERN OFFICE:
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BRANCH OFFICE: CALGARY, ALBERTA, N.-W. T.
LONDON (ENGLAND) OFFICE:
W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,
London, W. C., England.

JOHN WELD, MANAGER.

1. THE FARMER'S ADVOCATE is published every Thursday (24 issues per year). It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical, reliable information for farmers, dairymen, gardeners, and stockmen, 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.

Observations in the Country.

(Editorial Correspondence.)

In a recent trip of some fifty miles south of London, Ontario, passing through parts of the fine counties of Middlesex, Elgin and Oxford, the crop prospects and general evidences of prosperity on the part of the farmers were noted with pleasure. In few districts of the Dominion are found more fertile farms than in the townships of Westminster, Dorchester, Dereham and Southwold, the soil for the most part being strong clay, varying to clay loam, with lighter land in limited areas in certain sections. Winter wheat, which is commonly grown successfully in all this district, is this year a partial failure, owing to the unusual severity of the last winter, much of the land sown to wheat last fall having been plowed in the spring, and sown to oats and barley, with a prospect of good crops. Wheat fields that were left unplowed, probably because of being seeded to grass, show but a thin and uneven stand. With this exception, farm crops, including hay, and spring grain, are well up to the average standard, pastures are fresh and full of feed, and even corn, which is unpromising in most districts, here gives promise of a fair crop for fodder and ensilage purposes, clean cultivation and consequent thrifty growth being the rule. The farms here are generally free from weeds, and have the appearance of being well managed; while the dwellings and outbuildings are of the most substantial and tasteful description, evidencing the thrift and comfortable circumstances of the people. Throughout the most of this district dairying has for many years been the principal farming industry, cheese factories and creameries being found more thickly placed than in any other section of Western Ontario, and the solid financial condition of the farmers here confirms the opinion that, taking the years and the times as they come, there is no safer business for farmers, where the conditions are favorable, than the production and sale of milk in its raw state, or its manufacture into cheese and butter, together with the

feeding of hogs on the by-products of the factory. In the last two or three years, the extra good prices obtained for export cheese made the outcome for the farmers exceedingly satisfactory. This year, prices being considerably lower, the prospect is less roseate, but, pasturage being so abundant, the yield of milk is large and cheaply produced, and as these people have stood by the dairy business steadily for more than a quarter of a century, some of them have seen many ups and downs in the markets, and know that by staying with the business good average profits have been realized, and they are not easily discouraged. Owing to the lower prices for cheese and butter, the extensive milk-condensing factory at Tngersoll, operated by an American company, is receiving all the milk it can handle, at a cash price contracted for early in the year, and is providing a profitable outlet for a very large amount of milk.

At Tilsonburg, on the edge of Oxford County, the great Annandale dairy and stock farm of 580 acres, belonging to the estate of the late Mr. E. D. Tillson, was visited. Readers of the "Farmer's Advocate" in past years have been informed of the remarkable enterprise and achievements of that worthy gentleman in breeding and developing a dairy herd of Holstein grades of phenomenal productivity, one of his cows, bred on the farm, having produced 20,132 lbs. of milk in one year, five of his best cows giving 13,000 lbs. to 16,582 lbs. in a year, and sixty-five cows an average of nearly 10,000 lbs. yearly. This result was accomplished by careful selection of the cows, weeding out unprofitable ones, using sires bred in large producing lines, keeping individual records, and feeding liberally the year round, ensilage and a half of the winter's ration of meal being fed through the summer, even when the cows were on pasture. The farm is now leased and operated by the well-known Holstein breeder, Mr. Geo. Rice, late of Currie's Crossing in the same county, the record of whose cows in public dairy tests and Pan-American prizewinning stands unexcelled, and whose practical experience and knowledge of farming, breeding, and the manufacture of butter, renders him well-fitted for carrying on the work so ably inaugurated by the late owner of Annandale. Considering that since Mr. Tillson's death things on the farm had not been kept in quite the condition that obtained during his regime, and that the late severe winter played havoc with wheat and clover, Mr. Rice is to be congratulated on the headway he has made since assuming the management in March last, his crops of forty-five acres of corn, thirty acres of potatoes, and spring grain in proportion, looking remarkably well for this season. Here is well illustrated the wisdom of securing sound seed, for while corn in nearly every section of the Province is weak and irregular, largely the result of seed lacking in vitality, Mr. Rice, who raises and cares for his own seed corn, and tests its vitality before sowing, has an even stand over all his fields, and by frequent use of a two-horse cultivator, with shields to protect the plants, cleaning two rows at a time, weeds have been kept under and the crop constantly improving.

With the best set of farm buildings in Canada, costing over \$75,000, with an ample supply of pure spring water brought by gravitation to every stall in the stables, with accommodation for one hundred and fifty head of cattle and five hundred hogs, with a complete creamery outfit, operated by steam power, which also runs all the machinery of the barn, even to the horse-fork and sheaf-carriers, Mr. Rice has a great field for the exercise of his energies, and the indications are that he will prove equal to the occasion, as the work of the farm, with his well-chosen help, runs like clock-work, and hurry or flurry have no place in his operations, but order and system prevail in every department under a wise and judicious administration of authority; while the heart of the proprietor of the Annandale herd of Holsteins is so large that in his business circular inviting his friends and customers to visit the farm, he says: "The latch-string always hangs outside, and if you cannot find it, 'kick in the door.'"

J. C. S.

Echoes.

I have now taken the "Farmer's Advocate" since the beginning of it, and would not like to be without it.
Huron Co., Ont. JOHN KITCHEN.

I would not be without the "Farmer's Advocate" for three times the cost of it.
Wentworth Co., Ont. JAMES McGUIRE.

I very much appreciate the change you have made in the "Farmer's Advocate." It is worth many times the subscription price.
Simcoe Co., Ont. W. H. B. McCLURG.

May say I am very much pleased with the paper, and appreciate it to the fullest extent.
Toronto, Ont. E. FRENCH, Confectioner.

HORSES.

Lightning-stroke.

This accident is not of equal frequency in animals of different species. Lightning appears to select special victims among animals, as the horse, ox and sheep. From reasons that cannot readily be understood, the horse is more frequently the victim than members of other species. The accident may occur either in the stable or field, more frequently in the latter. The consequences of the stroke, of necessity, vary according to the intensity of the electric fluid, and, also, according to whether its influence is direct or indirect as experienced by the animals.

Symptoms.—Violent electric discharges produce instantaneous death. Slighter strokes, and those which fall upon a neighboring object, cause conditions of more or less stupefaction and paralysis. In some cases they produce a condition of unconsciousness from which it appears impossible to arouse the animal, and this condition may persist for several hours. In other cases there is noticed a degree of stupefaction and partial paralysis. If led, he appears stupid, and staggers in his gait. The pulse, respirations and temperature in many cases being almost normal, while in others the two former may be abnormal, but the latter is seldom affected except in the latter stages of the accident that is about to prove fatal. The appetite may or may not be impaired. In cases where the stupefaction disappears, or begins to disappear in a few hours, where the paralysis is not marked and a desire to eat remains, the effects are likely to be slight, and a perfect recovery will probably take place in the course of a few days; while in more severe cases, the paralysis, partial or complete, persists for some days, notwithstanding treatment. In the majority of cases when death does not occur quickly, recovery may be looked for, even though it be slow. It is seldom permanent disability, either partial or complete, remains as a sequel to lightning-stroke. It is not uncommon to observe external wounds. On the skin, we may find straight or angular lines, or irregular figures, indicating the course followed by the electric spark, and on the surface of which the hair is burned (these markings have sometimes been mistaken for imprints of twigs or branches.) Lightning may also burn a large surface of the protecting hairy growths—eyelashes, hair tufts, etc. We sometimes observe very deep burns of the skin and underlying connective tissues and muscles: the latter, when lacerated, present a dark red or blackish tint. Post-mortem examinations of fatal cases present nothing characteristic other than the local alterations. In the majority of cases, the veins are engorged with dark blood, and the brain, lungs, kidneys, etc., contain small blood clots; but these characteristics are often entirely wanting. The flesh of an animal killed by lightning-stroke decomposes very rapidly.

TREATMENT.—There is no specific treatment for this accident; it must be purely symptomatic. Stupefaction must be combated by quietude and stimulants as two-oz. doses sweet spirits of nitre in one-half pint cold water, or six to eight ozs. whiskey or brandy diluted with an equal quantity of water, given as a drench every two or three hours, as long as indicated. Paralytic symptoms require the application of muscular stimulants and irritating topical applications as smartly rubbing with camphorated liniment, frictions, massage, etc., and where a battery can be procured, the application of a slight degree of electricity appears to give good results. The activity of the bowels should be encouraged by the administration of a slight purgative, as six drams aloes and two drams ginger, followed by two-dram doses of nux vomica two or three times daily. If necessary, when recovery is taking place, the patient should be assisted to his feet, or even raised by slings, and as soon as possible given walking exercise. "WHIP."

The Conformation of the Drafter.

The following from the Live-stock Journal (London, Eng.) will be of interest to horse-breeders generally:

"Everything in its place, and its requisite size and strength, is the idea of the builder of a ship. No power in fuel is to be unnecessarily wasted. She must hold to sea with the minimum of repairs, attain the maximum of economy consistent with speed and delivery, and keep out of the dry dock. One looks for something like this in the modern draft horse, no matter of what breed. Its load may be light and its voyage short, yet, all the same, it has to get through its work somehow.

"Is proportion duly studied? We come upon horses at times which are absolutely undefinable as to knees. These, on the other hand, are abnormally developed at the hock. Thigh muscle is conspicuously absent from most of our stallions, from a reason easily explained—we do not put our stallions in the yoke now. A real good knee is an absolutely essential lever for heavy street work. It is very easy to repeat such

truisms as 'no foot, no horse,' but those who carry the check books through the market know quite well that the thin division do not command a ready sale.

"When anyone who understands work horses at all is about in the market place, he instinctively pitches upon those which are suggestive of pith and power. Minor show-yard attractiveness is not altogether forgotten, 'the like come, like go' having to be held in view, just as it was in the days previous to studbooks.

"If a horse is come of a family of good sound constitution, and there is no absolute malformation, even if a little behind the show-yard standard as to feet and pasterns, we should hold him to be preferable. The commissioner sent out with a certain amount of money to spend has no time to talk over the points which came up at the last county show. The railway whistle shifts his ground to another country, and although the slobbering, lobbing sort may not be altogether in his mind, he knows they will fill the bill.

"A good-sized draft stallion or mare should have a well-developed knee, and fetlock joint in proportion. It is scarcely of any use trotting out the old adage, 'no hoof, no horse,' as nearly all the draft horses now have fairly good feet. Hocks, we think, should always be proportionate to stifles and quarters. They are not so, somehow, a great, thin, ill-spread, leggy sort having at times hocks which throw it out of all bearing so far as the contour of a picture is concerned."

The Hackney Horse.

ORIGIN.—This breed originated in the County of Norfolk, England, through the crossing of Thoroughbred stallions on native Norfolk trotters. These trotters were noted more for their ability to travel long distances than for their speed. Through Bellfounder, the American trotter may be traced back to trotters of Norfolk descent. Among the most creditable records that are known for these horses was that of the mare Phenomenon, that trotted in July, 1800, 17 miles in 56 minutes, and in the same month repeated the same performance in 53 minutes. Bellfounder, at five years old, trotted two miles in six minutes, and in the following year trotted nine miles in 29 minutes and 38 seconds. Velocity, the dam of Bellfounder, trotted on the Norwich road in 1806, 16 miles in one hour. In 1808 she trotted 18 miles in 1 hour and 47 minutes. Marshland Shales, in a match race, is reported to have trotted 17 miles in 58 minutes, carrying 168 pounds. Norfolk Phenomenon is known to have trotted two miles in five minutes four seconds. Merrylegs trotted a mile in July, 1834, on the road in 2.42, and his dam trotted a mile in three minutes at different times, and when 22 years old she trotted 2 miles 290 yards in 5 minutes and 48 seconds. The dam of Sportsman, her sire, trotted nine miles in half an hour. Chestnut Horse, brother of Merrylegs, trotted two miles in 6.22, when four years old, and his brother, Bay Horse, trotted 17 miles within an hour in June, 1830, trotting the last mile and a half in four minutes. In August, 1830, in a matched race, he trotted four miles in 11.45, carrying 168 pounds. Another record for the Norfolk trotter was made on April 24th, 1820, when 100 miles was trotted on the Ipswich road in 12 successive hours. The first fifty miles was trotted in five hours and five minutes; the 100 miles in 11 hours and 40 seconds. These records indicate that the Hackney at an early day was bred for endurance, together with speed and substance. The mating of Blaze, a son of Thoroughbred Flying Childers, upon the native mares of Norfolk appears to have originated this type. Flying Childers was the get of Darley Arabian (imp., 1702), that had so much to do in the making of the Thoroughbred. Blaze sired Shales, the sire of Driver, the sire of Fireway, and to the latter nearly all the noted Hackneys of to-day trace, such as Rufus, Confidence, Lord Derby, Trifits, Fireway, Danegelt, Goldfinder, Field Marshal, etc.

CHARACTERISTICS.—The typical Hackney is a horse of extreme smoothness and gracefully curved outlines. The head is light and expressive; neck muscular and curved, but free from heaviness; shoulder smooth, and laid well back; body circular, compact, short; hips smooth, quarters plump with muscle; legs short, and tendons clearly defined. Their action is noted for its gracefulness and stylishness, being very high and round in front, and regular behind. The front legs are thrown very high, and the feet appear to follow the edge of a circle in their course. The action of the hind legs is peculiar, in the degree to which they flex their hocks and carry their feet far forward, thus keeping the stride and the body balanced. The movement of the typical Hackney is elastic, the feet coming to the ground easily, and leaving it with a quick motion. In their hind action there seems to be more movement and less action in the stifle than in the instance of the majority of American trotters. These horses are usually solid colors, bay and brown. They are seldom over 15.3 hands; the general preference being for those of this height rather than over it. An increase in height is very often due to an infusion of

Thoroughbred blood, which will also show itself in straighter outlines and stiffer action.

UTILITY.—The Hackney is best suited for the production of coach horses, and for stylish, high-stepping cob horses for city driving. Their attractive appearance and excessively high action are the qualities that adapt them for city turn-outs. Their action is, to a large extent, the result of cultivation, so that the training and fitting of these horses for the market becomes skillful work, and the mares used should have, in a degree, the Hackney form and action. The use of Hackney stallions from inspected mares is rarely satisfactory, especially if used on mares of mixed breeding, due to the short pedigree of the stallion, his short ancestry being likely to decrease his prepotency.

STOCK.

Infective Animal Diseases.

Through the medium of his special articles contributed to these columns during recent years, and by our reviews of several of his works, readers of the "Farmer's Advocate" have learned to appreciate the services rendered the veterinary profession and horse owners by Capt. M. H. Hayes, F. R. C. V. S., one of the foremost British authorities of the day on these subjects. Among his best-known works are "Veterinary Notes for Horse Owners," "Points of the Horse," "Riding and Hunting," "Stable Management and Exercise," "Illustrated Horse-breaking," etc. We have now received from the publishers, Messrs. Hurst & Blacketts, 13 Great Marlborough St., London W., Eng., a copy of volume 1 of Fried-



Hackney Mare, Fair Nell 65; Sire Robin Adair, out of Steeton (imp).
Owned by Rawlinson Bros., Calgary, Alta.

berger & Frohner's Veterinary Pathology, fourth edition, revised and enlarged, translated from the German into English, and edited by Capt. Hayes. This work, "Lehrbuch der speciellen Pathologie und Therapie der Haustiere," is not only the highest authority on veterinary medicine in Germany, but its French translation has been adopted as a text-book on the subject in the Veterinary Colleges of France. In the authorized translation before us Capt. Hayes has unquestionably done his work well, and in its mechanical execution the book is a credit to the publishers. To the library of the up-to-date veterinarian it will be an invaluable addition, and, in view of the fact that infective diseases, with which it so thoroughly deals, can in many cases be communicated from animals to man, this volume will be appreciated by medical doctors, as well as veterinarians, whom the second volume will more particularly concern. A good many addenda have been made, which will make the work more fully meet English requirements. It contains a valuable chapter on bacteriology. The price of the work is quoted at 10s. 6d. net.

Beats all Other Weeklies Now.

I like the "Farmer's Advocate" very much, and would not like to be without it, especially since it comes weekly. I trust you will have every success in your good work, as your paper ought to be in every farmer's home. The "Farmer's Advocate" beats all other weeklies now, according to my mind.
Middlesex Co., Ont. WM. SMITH.

The Ox Warble.

The observant stockman will have noticed in the winter or early spring, lumps or tumors in the skin of the middle back of his cattle. These, on further examination, will be found to contain, besides the pus and broken-down tissue, a large, fleshy white grub. This is the larvæ of the ox warble.

For many years entomologists were unable to agree as to the correct life history of the insect. It was at one time thought to have gained entrance to the skin by the eggs being laid on the animal's back, and on hatching the larvæ eating their way through the skin. Later and more thorough investigation has revealed the fact that such is not the case; strange as it may seem, the method pursued by the insect is entirely different. The eggs are deposited by the female on the hair of the cow, in places where they can be reached by the animal when it licks itself. When they reach the cow's mouth they hatch, and the minute larvæ bore into the œsophagus, or other parts of the alimentary canal, and work their way through the muscular tissue until they reach the middle back. Here they remain, living on the tissue of the cow until mature, when they emerge by means of the breathing hole they made in the hide, and fall to the ground. On reaching the ground they work their way below the surface a short distance, enter the pupa stage, and emerge in a short time as the adult fly. The adult fly belongs to the family Estridæ, or the botflies, of which the best known is the horse botfly, which at a casual glance might be mistaken for a honeybee, except that the female has the end of the abdomen pointed and turned under. The other common member of this family is the sheep botfly. If one of these ox warble flies be captured and examined, it will be found to have a large head with broad face; the antennæ minute, three jointed, and not readily seen; mouth-parts small and inconspicuous.

The importance of some practicable remedy is at once apparent, when one considers the misery and loss of flesh sustained by the affected animal, and the reduced price usually obtained for hides damaged in this way. At this season of the year, when the larvæ are approaching maturity, slitting the skin, pressing out the grub and killing it, is perhaps the most practicable. The application of mercurial ointment during the earlier stages gives excellent results. This ointment penetrates the wound and kills the larva, which may afterwards be pressed out or allowed to remain and to suppurate out itself. A mixture of lard and sulphur, applied in a similar way, is also beneficial.

As yet there is no practicable method of prevention, although I noticed during last summer that cows which had been sprayed for the stable and horn flies did not seem to be troubled as much as the others. Of cows in same pasture and under same conditions, there were some which for some reason were almost immune from attacks of this insect. The physical condition of the animals did not seem to make any appreciable difference, both the well nurtured and those less fortunate being attacked with equal willingness by the insect.
Peel Co., Ont. H. M.

A Tribute to the Cow.

By Col. F. M. Woods.

Grand and noble brute! Of all the animal friends of man she is the greatest. To her we owe the most. Examine into all the different channels of commerce into which she enters and note the result should she be blotted out.

A Sunday stillness would then pervade the great stock-yard industries of our large cities, and grass would grow in our streets. Fifty per cent. at least of the freights that plow the continent from ocean to ocean would be sidetracked, for there would be nothing for them to do. Fifty per cent. of the laborers would draw no pay on Saturday night. Our tables would be bare of the greatest luxuries with which they are now covered.

Oh! you would abuse a cow. I wish that I as you are about to sit down to the noon-day meal, might slip up and remove from your table what the cow has placed thereon. I'd take the cup of milk waiting at baby's chair. I'd take the

cream, the cheese, the butter, the custard pie, the cream biscuit, the steak, the smoking roast of beef, and leave you to make a meal of potatoes, beets, pickles and toothpicks.

It's the self-same cow that made the great western plains to blossom like the rose, and were it not for her they would revert to the Indians from whence they came. None others like the cow. There is not a thing from nose to tail but that is utilized for the use of man.

We use her horns to comb our hair, her skin upon our feet, her hair keeps the plaster upon our walls, her hoofs make glue, her tail makes soap, she gives us our milk, our cream, our cheese and butter, and her flesh is the greatest meat of the nation; her blood is used to make our white sugar, her bones are ground to fertilize our soil, and even her paunch she herself has put through the first chemical process necessary for the production of the best white cardboard paper; and it has been discovered that such paper can be made into the finest quality of false teeth.

No other animal works for man both night and day. By day she gathers food, and when we are asleep at night, she brings it back to rechev and convert it into all things of which I speak.

She has gone with man from Plymouth Rock to the setting sun. It was her sons that turned the first sod in the settler's clearing; it was her sons that drew the prairie schooner for the sturdy pioneers as inch by inch they fought to prove that "westward the star of empire takes its way," the old cow grazing along behind, and when the day's march was done she came and gave the milk to fill the mother's breast to feed the sucking babe that was, perchance, to become the ruler of his country.

Who says that much of what we are we do not owe to man's best friend, the cow? Treat her kindly, gently, for without her, words fail to describe the situation.

How Shorthorns are Recorded in Canada.

To ensure a satisfactory record of pure-bred stock of any breed, it is necessary that the rules regarding the same be drawn up as complete as possible, and yet be in the simplest language, so that they cannot be misunderstood by anyone. Even under these conditions, mistakes are occasionally made, and so owners of pure-bred stock should ever keep handy for reference a copy of the rules and regulations affecting the particular breed of live stock in which they are interested. Shorthorns excel all other breeds in number and general distribution throughout Canada, and the committee of the Dominion Shorthorn Breeders' Association is composed of some of the best business men in the Dominion. In consequence, the rules governing the registration of the breed are very complete, and are drawn up in what are the best interests of those recording, as well as with the view of simplifying the office work.

The following are the rules and regulations in force, with suggestions, by following which, breeders will both simplify the work of recording and also obviate risk of confusion and error:

The blank application forms issued by the Dominion Shorthorn Breeders' Association (incorporated under the Act respecting Live-stock Record Associations, Department of Agriculture, Ottawa) have a space for the name of the animal, color, sex, day, month and year of birth; also, for the signature of the owner of the service bull, date and year of service, and the name and address of the breeder and each successive owner up to date. On the line below, a space is reserved for the name and number of the sire, and the same for the dam. The exact date of birth of the animal should be given, not merely the year, but the day and the month also. On the bottom of the form the signature of the breeder is required, or, in case of decease, that of a proper representative. The breeder of the animal is the owner of the dam at the time of service.

The regulations, price and instructions for making entries are to be found on the back of the application form. These forms are provided free by the Association, and a book is kept in the office in which is written all transfers and produce of each animal recorded. These forms may be had upon application (by post card or otherwise) to the secretary and editor, Henry Wade, Toronto, Canada.

In naming animals to be recorded, breeders are requested not to use common names, which are liable to become confused. A good plan is to prefix or affix the name of your farm, county or town, etc. Names strictly of one sex should not be applied to the other sex. An animal cannot have the same number as that of an immediate ancestor, some word or name-number should be added. An animal cannot have a lower name-number than any ancestor. For instance, if the dam is Missie 28th, her calf must be at least Missie 29th. The use of the word "first," or "1st," in a name also causes confusion. Beauty 1st is really the same as Beauty. Two words make for a name, three make it too long.

Females are entered under their owner's names, in alphabetical order, and all bulls and cows appearing in the lineage of animals sent for record are recorded with proper numbers in the Canadian Herdbook, down to and including the imported animal. English numbers are recognized beyond that. No animal is admitted to registry in the Canadian Herdbook, except those whose pedigrees trace in all their crosses to imported cows registered in the English Herdbook. Registration in the English Herdbook of stock imported previous to 1865 is not required. No animals recorded in that book that have no ancestors on record or eligible for record previous to Volume 21 are admitted. Those imported since 1846 must trace to ancestry distinctly designated, but owing to the difficulty connected with keeping proper records prior to that date, it is sufficient to know that the ancestry has been imported.

All applications are considered in the order in which they are received at the office of the Association, except in cases of emergency, where certificates are required for shipping or for sales; they are then considered in advance of their regular order, and certificates are furnished, but the pedigrees are not advanced thereby for entry in the herdbook. The work of the Association this year, owing to the large number of registrations and increased membership, is constantly increasing, over 19,000 letters and communications having been mailed, 1,936 membership receipts, 2,058 herdbooks, 1,800 annual reports and 1,800 circulars re dairy test. All pedigrees received have to be checked, then posted. Fully half of the letters that are received with pedigrees have to be answered, on account of insufficient information. The answers require careful consideration. A pedigree is never passed without examining that of the sire and dam, checking the age of the sire, and examining the dates of birth of produce posted under the dam to detect errors in date of birth.

Original papers and forms, after being printed or copied, are kept on file, and all money is received as soon as possible as it comes to the office of the Association. These papers are all examined by the official auditor of the Association, Mr. C. F. Complin, every six months, and audited. At the end of each year he prepares a statement of the number of herdbooks sent out, the number sold, and a statement of all moneys received by the Association during the year. This is arranged in tabulated form, and is printed in the annual report, which is distributed to all members of the Association and the press.

It is proposed in Volume 20 of the herdbook (which is now in the press) to re-print this report, and it will no doubt prove a valuable addition to this year's herdbook. A glance over the manuscript for Volume 20 shows that it will contain the pedigrees of 5,476 cows and 4,837 bulls, making a grand total in the twenty volumes of 109,541 pedigrees.

A list of premiums awarded at the different exhibitions throughout Canada will appear in Volume 20, and should also add interest to that volume. The Association has, since 1895, distributed prize money to the fairs in the several Provinces and Territories amounting to over \$22,325.

In 1898, the annual fee was reduced to \$2.00 per annum, which has resulted in a very large increase in membership, consequently circulating more of the herdbooks amongst the breeders. The penalty fees have also been reduced—to members, from \$1.75 to \$1.00, and for non-members, from \$2.25 to \$1.75. The time limit was changed, in 1897, to two years, instead of eighteen months. Every member of the Association receives each year a copy of the herdbook free, and for the benefit of the readers of this article who do not know the cost of registration, it is as follows: For registration and certificate: to members, 75c.; non-members, \$1.25; if over twenty-four months old, \$1.00 to members, and \$1.75 to non-members; membership fee, \$2.00 per year; transfers, 25c., and duplicate certificates, 25c.

I would suggest that all breeders of Shorthorns who are not thoroughly posted on these rules and regulations, cut these out and paste them in a scrap book, or keep them in some other handy place of reference.

Representatives of the Dominion Shorthorn Breeders' Association will attend the Dominion of Canada Exhibition at Winnipeg, and the Secretary will be glad to supply any information, forms, pedigree blanks, transfer slips, etc., to any Shorthorn breeders who may require the same. Registrations and membership fees may also be made and paid during the Exhibition, as a convenience to the Western breeders. HY. WADE, Secretary and Registrar.

The Leader.

I consider the "Farmer's Advocate" the leading agricultural journal of Canada. It would repay every farmer and stock-breeder to have your paper in his home. Wishing the "Farmer's Advocate" every success. WM. ARGO.

Wellington Co., Ont.

Impressions of the Royal Show.

MANAGEMENT IS COMPLETE IN EVERY DETAIL.

(Special correspondence.)

To the Editor "Farmer's Advocate":

The sixty-fifth annual show of the Royal Agricultural Society of England was held at Park Royal, the new and permanent grounds, close to the City of London. Perhaps no other agricultural exhibition held in any part of the world has so wide an acquaintance and is so highly recognized as the English Royal. For years it has stood in a class by itself. To be a Royal winner is a commendation for an animal in any country. This being the case, we would naturally be anxious to see and learn of the methods employed in managing so important an institution. This year, for the first time, the writer enjoyed such a privilege.

This show has had a most wonderful history, commencing as it did at the beginning of the reign of the late Queen Victoria, who was at one time President of the Royal Agricultural Society. For some sixty-three years annual shows were held from year to year, missing but one, in the various parts of the country. In all some thirty-five different towns were visited, some of them twice, and a few three times. Under this itinerant method, going to the people as it were, the show became very widely and favorably known. People looked forward with expectancy to the time when the show would be held in their locality. All sections were interested, because sooner or later it would come to their locality. Some three years ago a majority of the members, or those in charge, decided that in the future it would be more satisfactory to have a permanent meeting place. London was selected. This brought forth dissent from many quarters. In some instances large numbers of the members resigned, believing the plan to be wrong and inconsistent, that those districts remote from London would not be benefited. The first show on the new and permanent grounds was held last year. The entries were numerous, but the people were not there in sufficient numbers to show an appreciation for such a worthy cause. Was it that the Londoner did not care for an agricultural show? Then the people from the other sections, why did they not attend? The first year is always more or less of an experiment, thus it would take a couple of years to awaken an interest in the city people, so thought the managing board. This year nothing was left undone in the way of advertising, the papers were most liberal in their notices, posters were to be seen in all directions, but again the Londoner did not come. This year's Royal will go down in history as being a good show, so far as exhibits were concerned, but poor, yes, almost a failure, in point of attendance.

Some, and they are by no means a small minority, claim that the management is not close enough to the people; that the show needs and must have a thorough reorganization before it will be a success in every respect; that the district fairs, patterned after the Royal, will replace the latter, unless new and more closely connected relations are obtained between the people and the managing board. It will be most unfortunate, not only for England, but for all other countries, if the Royal show should cease to serve the needs of its people. If the present condition of affairs continues, there is but one outcome. Exhibitors will not continue bringing out well-fitted animals and parading the same before empty grand-stands. Whatever may be said against the management in regard to the attendance at the recent show, it must be admitted that they conducted one of the cleanest, best arranged, most convenient and truly educational shows ever held by any society in any part of the world. Everything was ready when the show opened, and event after event passed off in clock-like order, and the show was drawn to an end without the slightest indication of a hitch in any part of the working staff. The writer has been a regular attendant at the leading fairs of Canada and the United States for almost twenty years, and never before did he see anything which approached the methodical work of the recent Royal. It was a truly agricultural show. Nothing but agriculture and those branches which have a most direct bearing on this work could be found in any part of the grounds. There were no side-shows, gambling dens or horse races to be seen at any time during the entire week. Everything was arranged so as to be of the greatest possible educational value. The convenience of the exhibitor was not considered, if the outcome would in any way be detrimental to the views or comforts of the spectators. The latter were always given every possible consideration, and everything was arranged in accordance with this end. The machinery exhibits were all to be found on one side of the grounds; the general agriculture and educational exhibits on another, and all of the live stock on another. The grand-stands and horse-judging ring are in the center, thus convenient to all parts.

The arrangement of the stalls and the animals in the stalls was most complete, and very helpful to the spectator. The cattle, sheep and swine barns were all arranged in two rows of buildings, with an alley between. Each barn would accommodate about twenty or twenty-five animals, or pens of animals; then the animals are arranged in the same order as they appear in the catalogue. This was carried even further. Instead of having the entire herds belonging to one exhibitor or firm located in the same barn, as is the common custom in America, all the animals of one particular class are in the same row of stalls. This made it possible to make a careful study and a comparison

FARM.

Problems of the Soil.—XI: The Legumes in the Rotation.

It is generally held that plants of the pea and clover family are "easy" on the land, and the belief is upheld by the common experience that the ordinary grain crops of the farm do better after a crop of this class of plants—the legumes—than after other crops of the cereal class. This fact leads to the conclusion that the legumes remove little from the land, and this is the common belief in regard to this class of plants. As a matter of fact, as a glance at the table published in paper X. of this series will show, there is no class of plants, with the possible exception of some of the root crops, that contains larger quantities of fertilizing materials. Clover, for instance, contains more fertilizing elements, in the amount usually obtained per acre, than turnips, which is one of the hardest crops on the land, and very much more than wheat; and yet we know that clover "builds up" the land, while wheat and turnips impoverish it. How shall we explain this fact?

As we saw at the beginning of this series, of the three chief elements of fertility, two, potash and phosphoric acid, are found in the rocks of the earth, while the third, nitrogen, is found in large quantities only in the decayed vegetable matter or humus of the soil. When potash and phosphoric acid are removed, more is supplied by the gradual breaking up of the small particles of rock in the soil, a process greatly aided by the ordinary operations of tillage. When the supply of nitrogen is exhausted, as it is by the growth of cereal crops, no such source of supply is available. There is

farm very largely, and the resulting manure returned to the land, contributes very largely to the fertility of the land. Any farmer who made a practice of buying and feeding large quantities of clover hay, and applying the manure thus obtained to his land, would expect, and would get, a very great result in increased fertility. Any farmer, in the same manner, growing and feeding large quantities of clover hay, may expect just as sure results. The nitrogen contained in the clover hay grown on the farm is just as much a gain to the fertility of the farm as it would be were the hay obtained from an outside source, and, since nitrogen is the element of fertility most needed, the total gain in fertility will very nearly equal that obtained by buying and feeding the same quantity of hay. What is true of clover is true in the same way of the other legumes. In the roots and stems left in the soil, and in the manure obtained from feeding these crops, we have the best and cheapest source of nitrogen, the only way in most cases of building up the farm and increasing the soil's fertility.

One other point is worthy of note in regard to the legumes. They are very heavy feeders on phosphoric acid and potash, particularly the latter, which of course they obtain from the soil, not from the air. Hence, while they leave the land richer in nitrogen, they leave it poorer in its mineral constituents. This, however, is a matter of small moment if these crops are fed, as they should be, on the farm. These elements are not subject to loss in the treatment of manure, and practically all of them are returned to the farm in this way. Where, however, these crops are sold off the farm, the loss of potash and phosphoric acid is very great, and may largely offset the gain obtained by growing the crop. Last winter the writer was on a farm where the cattle were largely fed on a mixture of cut straw, pulped roots and chopped grain, while large quantities of clover hay were sold off the farm. This was exceedingly bad practice. Not only was the best of cattle food being sold for really less than it was worth, but in it large quantities of fertility which should have been retained on the farm were removed. In this case, while the plowing under of the clover-stubble was a gain in nitrogen to the farm, the loss in potash and phosphoric acid in the hay sold probably balanced or outweighed the gain. It should be remembered that the legumes are crops to be fed, not sold. We may sell the grain, peas or beans, if the price is right, but the straw of these crops and clover hay should never at ordinary prices be allowed to leave the farm. A still worse practice is that of burning stacks of pea straw, where the peas have been

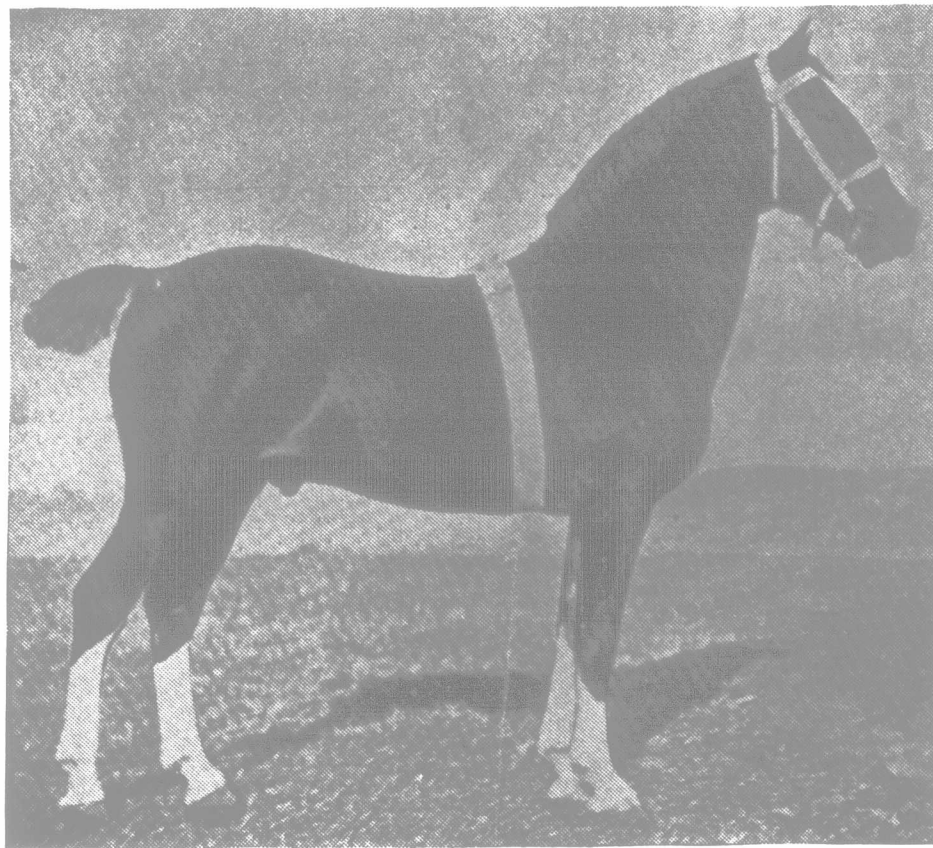
threshed in the field. This is, unhappily, still followed in certain parts of the country. Of this we can only say that it is a senseless waste, and the farmer who practices it knows nothing of his business.

In the rotation, the legumes are the best means of preparing for the cereals. They leave the land rich in nitrogen, which the cereals particularly need, and the great amount of potash removed is not an injury to the cereals, but may be a benefit. Large quantities of available potash in the soil tend to rankness of straw at the expense of grain. Where cereals follow legumes this danger is avoided. The good supply of nitrogen in the soil produces grain, while the scarcity of potash reduces the growth of straw; thus a heavily-grained crop is obtained, much less likely to lodge than one with a greater amount of straw. In the rotation, the legumes are a necessity, in order to obtain a supply of nitrogen to increase the general fertility of the farm, while they form the best possible preparation for the cereals.

D.

An All-round Farm Journal.

We appreciate your valuable paper very much, and think it one of the best all-round farm journals in publication to-day.
CHAS. JOHNSTON.
Durham Co., Ont.



All Fours 145 C. S. B., 459 A. S. B.

Four-year-old Hackney stallion. Sire Fandango (imp.), Pan-American champion. Dam Mischief (imp.), by Matchless of Londesboro. Property of Cox & Lewin, Brantford, Ont.; to be sold at their dispersal, August 10th. (See ad., page 1013, and Gossip, page 1011.)

only one great source, the air, four-fifths of which is the gas nitrogen. But this source is of no use to most plants. There is only one class of agricultural plants which can use this source, and from the air can obtain the supplies of nitrogen necessary to its growth, and leave in the soil, in its decaying roots and leaves, a supply for other plants. This class is the legumes, and it is this characteristic, the ability to draw on the free nitrogen of the air, that gives to this class its great importance, and makes it an absolute necessity in all rotations on ordinary soils. The legumes are the only agricultural plants which can feed from the air, in the sense of obtaining the ordinary elements of fertility from it. They do so only in the matter of the element nitrogen, but since this element is the one in which soils are most likely to fall short, their power in this regard becomes most important, affording a cheap and practical method for maintaining and increasing the fertility of the soil in this regard.

Under proper conditions, the legumes obtain practically all of their nitrogen from the air. This is stored up in the crop that we reap, and in the stems and roots which are left in the ground. With clover, particularly, this last source of soil fertility is very great, a quantity of nitrogen even greater than that removed in the crop being left in the soil in the crop residue, the roots and stems left after the crop is removed. In the case of peas, this source is not so great, but is still very considerable, as is shown by the way in which wheat thrives on a pea-stubble. But, besides this source of direct gain to the soil, the nitrogen contained in the crops removed, being fed on the

of any class of animals at any time during the entire show. This is as it should be at any recognized fair.

The judging is all done the first day, and at the same time in all the breeds. This makes it impossible to follow the work of the judge at the time the work is being done. But there is not much satisfaction in so doing anyway, as where the people are kept on the outside of the ring it is next to impossible to form safe opinions. (At the Royal only the judge and one attendant for each animal was allowed in the ring.) The remainder of the week this can be done in the stalls, where the animals are always to be seen, as they are plainly numbered, and large placards giving the judge's rating are posted in a conspicuous place. At certain specified hours the prizewinning animals are all paraded in front of the grand-stands. They pass around in the regular order of their winnings in the ring. This affords an excellent opportunity of seeing them in motion. A noticeable feature in all the breeds of stock on exhibition was that there was always competition. This was due to the fact that according to the rules of the society any breed which was not represented by three different exhibitors lost its classification the next year. In fact, it was cancelled at the time, and the entry fees returned to the owners who were present. This ruling may work both ways. It is enforced for the purpose of compelling the exhibitors or breeders of any particular breed of stock to see that there is a good representation of the breed on exhibition. Sometimes it happens that a most worthy breed is barred, while some other breed of little or no value is represented, and draws money out of the treasury for prizes won. During the recent show the Cotswold and Border Leicester sheep were excluded by this ruling, while some other breeds with little or nothing to commend them were entitled to show and win premiums. The same ruling also applies to the different classes of any breed. The Angus and Galloway cattle both lost some of the younger classes by this ruling. The judging is all done in the open, as no pavilions or protection of any kind are provided for in case of bad weather. But the judging is all done in a few hours, and bad weather is not likely to entirely prevent the work. All work is done by the single judge system, which aids very much in the dispatch and general satisfaction of the same.

The live-stock exhibits, on the whole, were very good. Perhaps no other show offers such an extensive classification, as in all more than fifty distinct breeds were on exhibition. Nothing but breeding animals are shown. The animals were all in good condition; some were overdone. The latter was true of several of the aged animals, and those in three-year-old classes. The younger things, as a rule, were not so highly fitted as animals of the same age would be at the American shows. For some reason there were a number of animals very bad in their feet and legs. In some instances they might almost be classed as cripples; otherwise these carried their form nicely, and showed little or no indication of patchiness or roughness at the tail or along the back and loin.

The horses made a fairly good showing, being of average quality and not overly numerous. The Clydesdales and hunters were noticeably weak, while the Suffolks and Cleveland Bays made a strong representation. Shires and Hackneys were present in sufficient numbers, and possessed enough quality to make an average appearance. The show would not compare with the exhibits seen at some of America's best fairs.

The cattle department made a much better appearance. In most instances the breeds were well represented, in both points of numbers and individuality. This was especially true of the Shorthorn, Devon, Hereford, Jersey, Guernsey, Kerry, Sussex and Dexter Kerry breeds. The remainder of the breeds, while in some instances lacking in numbers, usually were good in quality.

Sheep are generally strong at the Royal. This year proved to be no exception, as in all some nineteen breeds were represented. The Hampshires and Dorsets were very strong, while Southdowns, Oxfords, Shropshires and Suffolks made a good showing. The other breeds were not so numerous, but in many instances good individuals were to be seen.

The swine exhibit consisted of five breeds: The Large Whites, Middle Whites, Tamworths, Berkshires and Large Blacks. The exhibits, while not large, were of fairly good quality. The Berkshires were rather too short in the body to be in keeping with modern ideas. The Tamworths were very nice, being smooth of shoulder and having plenty of length and depth of body. The Large Blacks are rather ungainly looking, and, in the writer's estimation, have not very much to commend them to any people. The Large and Middle Whites made a very good showing. The latter breed is too short and thick to be desirable from a bacon standpoint.

The general agricultural exhibits consisted of the various booths of the different seed firms, which were exceedingly well arranged, butter, cheese, poultry, honey, bees, wool, hops, and the displays prepared by the different agricultural colleges and kindred institutions.

In the machinery department were to be found every kind and description of implement or vehicle which could possibly be used by the agriculturist. American companies were represented, but their implements, being of lighter construction, are not so popular in the eyes of the English farmer as the home manufactured, which are built to wear. In many instances simplicity of operation and general convenience is sacrificed for durability.

W. J. KENNEDY.

London, England, June 29th, 1904.

Hungarian Grass.

Hungarian grass is a warm-weather crop. Sixty days will usually see it seeded, grown and harvested, provided there be rains to start it quickly. It can easily be followed by winter wheat, if got in say two weeks after corn planting, but never sow until the ground becomes warm. On good rich land three large loads to the acre can be grown, and it makes good cow hay, much better than timothy, and more than twice as valuable as cornstalks. A ton of Hungarian hay contains about 90 pounds of protein, timothy 56, and corn stover 34 pounds, and protein is the main nutrient in feed.

The ground should be plowed early, and worked frequently until seeding time. Endeavor to have a fine, mellow, firm seed-bed. Sow three pecks to the acre, and sow evenly, for Hungarian grass makes a heavy, thick growth on good soil. Cover with a light harrow, and roll if dry, and there is no danger of a crust forming. Clay lands might better be rolled after the plants are two or three inches high, principally to make good mowing.

To make good, safe hay, cut as soon as it is fully headed out, while in bloom before the seeds have filled. You can see the blossom best in the early morning, when the dew is on. It will not bleach and damage in the dew as will timothy, and needs only about the same time to cure. Use a tedder if the crop is very heavy, and cure in much the same way as clover, though it will not injure so much as clover by lying flat.

Out in Maine it is regarded as almost as valuable as the corn crop. It can be sown after the spring rush is over, needs no cultivation, is easier cut and quicker cured, needs no husking and shredding, and can be put into less space in the barn. More than that, it can be followed by winter grain, and no danger of early frosts is encountered, as is the case with corn in some northern districts. J.

Lincoln Co., Ont.

Silo Filling.

I would like to offer a few hints as to filling the silo. I have tried several experiments, and will give you a sketch of the best one. I got five yards of sail-cloth, fifty-six inches wide, and ran a flat seam, double stitched, up the side, then cut it in two, and folded up the ends about three inches. We then worked lace holes about three inches apart to match to lace together. When commencing to fill the silo, attach a cord to the lower end, and one man in the silo can distribute the silage just where he wants it. The light and the heavy all goes together, and there are no corn-cobs flying all over. This leaves it nice and clean to work in the silo. When it fills up about half way, take off the lower length and attach cord to the upper one, which is tacked to the hopper. I made my hopper of half-inch lumber, two feet six inches high, and two feet six inches wide, and two feet in depth, and tapering down to eighteen inches by ten inches wide at the bottom. Pull the bag or sail-cloth up over the bottom, and tack fast. The back and ends should be about twenty or twenty-four inches higher than the front, to allow for the carrier or blower, and the back and ends prevent any blowing over in the silo. My experience is that if the light and heavy parts are equally distributed it settles evenly, and comes out in better condition. By placing a couple of planks across top of silo this hopper can be placed between them, or it can be strung up to a couple of collar beams in the barn.

Welland Co., Ont.

JOHN McLEOD.

Potatoes Should be Sprayed Now.

Farmers continue to lose hundreds of bushels of potatoes every year from blight and rot, which might be saved by spraying the vines with Bordeaux mixture. The results obtained at the Central Experimental Farm and elsewhere have proved over and over again how well it pays to spray, but comparatively few farmers spray their potatoes for the prevention of rot even yet. At Ottawa, one variety that was sprayed yielded at the rate of 201 bushels more per acre than the same variety unsprayed, and taking the average of 11 varieties there was an increase of 120 bushels per acre. The formula used is 6 lbs. bluestone, 4 lbs. lime, and 40 gallons water. If the potato beetle is still active, 8 ozs. Paris green may be added to this. If fresh lime cannot be obtained, 7½ lbs. washing soda will take its place. There should be about four sprayings, the first about the middle of July; the second from ten days to two weeks later; the third and fourth at about the same intervals, the object being to keep the vines covered with the mixture until September.

It has been proven by experiment that over half the crop of potatoes will be produced after August 22nd, if the vines are kept green, and this is what spraying will do as, at the Experimental Farm the vines have been kept green from 18 to 20 days longer than where left unsprayed. The cost of four sprayings is about \$7.00.

Fuller particulars will be furnished on application to the Central Experimental Farm, Ottawa.

W. T. MACCOUN,

Horticulturist.

Central Experimental Farm, Ottawa, Canada.

Summer Forage Crops.

The pasture on many farms is beginning to give out at this season of the year, and some sort of green food must be provided for the cattle. Pastures should be given a rest during late summer and fall months, in order to recuperate, and entire or partial soiling resorted to. Oftentimes on small farms, where a relatively large number of cattle are kept, the pasture has to be supplemented by forage crops all summer through. A desirable spring fodder is obtained by sowing wheat and hairy vetches together, one and a half bushels of wheat and one bushel of vetches. Cut just before the wheat begins to head. Wheat alone makes a good green feed. Following the wheat, have clover coming on. Clover when cut in full bloom contains fully as much protein as pasture herbage. Protein, in a relatively larger proportion to the carbohydrates in pasture grasses than in cereal fodders, is what makes a good pasture the most suitable feed for a dairy cow. The young cereals, wheat, rye, oats, corn and millet, are just as rich in protein when young, but as they grow taller the carbohydrates increase in proportion, and a leguminous plant, such as vetches, peas, beans or clover, is needed in addition to balance the ration.

Canada peas and oats are the best crops to follow the clover. Sow one and a half bushels each of peas and oats. Make three sowings, preferably middle to end of April, middle of May and first of June. The first sowing will be ready about the first of July. Oats and spring vetches yield about the same as oats and peas. Millet or barnyard grass makes a good feed during August, but it will not stand dry weather. Corn of a medium early variety comes in for the latter half of August and September. Soy beans mixed with the corn, in proportion of 10 quarts of corn to 7 of beans, are said to prove a good mixture. Hungarian grass sown in July will be ready to cut in September. Barley and peas furnish good green fodder for October. Corn silage is sometimes used instead of green forage, where long droughts are frequent, but the acidity is objectionable. Summer forage crops require rich soil and lots of manure. They cannot be grown with success on poor land. J.

Lincoln Co., Ont.

Straw or Manure as a Fertilizer.

A correspondent asks us to settle an argument as to whether dry straw applied to the land or the same fed to cattle, and the product returned to the soil, is the better for manure.

In considering a question of this kind, we must remember the dual effect of manure upon soils, viz., as a plant food, and as an improver of the mechanical condition of the soil. The value of the straw in this case will depend upon the amounts of three elements which it is capable of supplying to the soil, namely, nitrogen, phosphoric acid and potash. In the average straw, these amounts are not very large, and are not available until the straw decomposes, but the straw itself, that is, the fiber, has a most beneficial effect upon the mechanical condition of the soil, making it more friable and more capable of retaining moisture.

The value of the manure from cattle fed upon straw may be quite variable, depending upon the class of cattle to which it is fed. If fed to matured stock not giving milk, practically all the fertilizing ingredients fed in the straw will be returned in the liquid and solid excrement, for the elements that go to maintain heat and force are of no value as fertilizers, while those that go to renew the blood and tissues have an equivalent amount of fertilizing ingredients voided in the liquid excrement. If fed to young growing stock or cows giving milk, the three fertilizing elements will be utilized for the production of bone, flesh, milk, etc., so that comparatively little plant food will be found in the manure, and the bulk of the original pile of straw will be very much reduced, so that it cannot so beneficially effect so large a plot of land; hence, there may be a loss of plant food in feeding straw to young stock or milk cows. But straw is seldom fed to such stock alone, although there is no doubt but what it would sustain life. Straw is usually fed in conjunction with grain, hay, roots, silage, etc., and it is probable that in most cases the manure from stock fed on a mixed diet is much richer in plant-food than an equal weight of straw, and to such an extent that it would more than counterbalance the possible better effect of straw upon the mechanical condition of the soil.

To make a profitable disposition of straw one must further consider the processes in the animal economy. Although the food constituents of straw may be comparatively inconsiderable, yet stock, and especially cattle, require a certain amount of vegetable matter to satisfy the demands of their digestive organs, even though they may previously have received enough food in a concentrated form to more than sustain life. And so the feeding of straw, if hay or ensilage is not plentiful, is imperative. On the other hand, it must not be forgotten that all the nitrogen, a valuable fertilizer, voided by animals is found in the liquid excrement, and if this element of plant food is to be utilized, absorbent, in the form of

straw or other vegetable substance, should be provided.

To give our correspondent a specific reply, we would say that rather than put straw upon the land, we would use a reasonable amount of litter, and then try to utilize the rest in feeding with other foods, for straw, being capable of absorbing either as litter or when fed with richer foods, a certain amount of fertilizing material, is, under average conditions, improved as a fertilizer by being used in either of the above methods.

Farm Work "Lightsome."

Prof. Waugh, of the College of Agriculture, of Massachusetts, claims that farm labor is the least monotonous of any in the world. "Compare a man," says he, "who in a day milks the cows, splits the wood, drives a young colt to harness, plants potatoes, mends a drain, sells three pigs, mixes a complicated chemical fertilizer after a recent scientific formula, doctors an ailing mare, prunes his plum trees, and does twenty other odd jobs, with the man who sits all day on a stool and pastes red labels on packages of breakfast food."

DAIRY.

What E. O. D. A. Instructors Would Do.

[Address delivered by G. G. Publow, at E. O. D. A. annual meeting.]

The President of the Eastern Ontario Dairy-men's Association wants me to tell you what I am going to do this year. We hope to carry out the work this year the same as last, syndicating factories throughout Ontario. You will be offered, I expect, the same service for the same money. That is, you will get the services of the instructor for the sum of \$15. His duty will be first to visit your factory to see that the cheesemaker is serving you well; that he is making the most cheese and best cheese out of the milk you give him. If he finds he is not doing that, the instructor will be expected to instruct the cheesemaker to do better. If there is anything wrong with the milk, it will be the duty of the instructor to find out where it is, and what is the cause; and if the patron who is to blame refuses to rectify the wrong, it will be the duty of the instructor to call a meeting of the patrons and point out the difficulty.

At the present time the instructors are handicapped because they have no power to enforce any conditions. I think they should have at least the power of a Board of Health Inspectors. When they go to a cheese factory, and find an unsanitary state of affairs, they should have the power to make them improve the premises. I wish the farmers of the country would wake up, and not let those poor factories exist. They are seeding this whole country with undesirable bacteria, and that is causing trouble to everyone else in the business.

We should see that we supply the cheesemaker with good milk, and then insist upon his having the factory in proper condition, and upon his being competent to make the best product in the world.

No country in the world has a better reputation for good cheese than we have in Canada, but that does not say that we cannot do better. Some farmers think that the inspectors are going out to spy after them, and to try and do them harm. That is not the case. They are sent out to do you good, and to help you on, to help you to make more money out of the business. The inspectors, as a rule, have been kindly used; but in some cases they do not get the best treatment. We have found difficulty in getting the best men to accept the position of inspector. An instructor should be able to handle the people as well as the cheesemaker, and he should know all about the business from the ground-floor up. When we send an instructor to you, please listen to him kindly. Do not tell him to get off the farm. Do not say, "I have always had that milk setting in that place, and I am going to leave it there, and if you don't want to take it, somebody else will." We cannot do without your assistance; we want your co-operation, and we want you to see that you have a good man in your factory. You should go down to these cheese factories and look over them. They are practically yours. If the cheesemaker is not clean and tidy, tell him to tidy up, and clean himself up or get out. If the cheesemaker tells you that your milk does not smell very well, and if he has a dirty and bad-smelling factory, you can say to him, "Well, your cheese factory does not smell very well."

If you could increase the home market for cheese ten per cent. you would be doing a big thing for the cheese industry. I have had farmers ask me to pick out a good cheese for them because they would not eat cheese made in their own factory. Now, how can you expect the buyer to give you the highest price for cheese if you will not eat your own? I believe most of us will be able to accomplish a good deal this year if we will only try.

I expect the same thing will be done this year as last with regard to grouping the factories, and I hope that the factories that wish to come in will notify us in good time, so as to give us an opportunity to select good men. I do not think there is any factory in this country that can afford to do without an instructor. We find that even with the very best cheesemakers there

is a good deal to be accomplished. The instructors stimulate them to do better work.

If anything special was accomplished last year, it was in the cleaning up of the factories. More factories were cleaned up than have been for fifteen years, and the quality of the cheese made has been better than ever before. There is more loss occurs to the farmers of this country owing to the condition in which the milk comes to the factory than by the adulteration of the milk. No person gets any benefit by sending bad milk, and a great many people are injured.

In one factory last summer we were getting milk in bad condition. We divided the milk, and put the best milk in one vat, and the poor milk in another, and the milk that was in a poor condition tested 1-10 more in fat than the other. The poor vat took 10½ pounds of milk to make a pound of cheese, and four hours longer in manufacturing it, and we did not have as good cheese. Look at the worry and the loss to the patrons of that factory. (Applause.) If you want improvement along these lines, lend us your assistance, and we will do our best to help improve the quality of this most important product.

Electrical Milking.

U. S. Consul Warner, writing from Gera, Germany, describes a method of milking cows by electricity. In the newly-invented apparatus for milking cows by electricity, rubber hoods are attached to the udders of the cows. These hoods are connected with a vessel for receiving the milk by means of a rubber tube, from which the air is exhausted by means of the electrical device. It is claimed that the suction thus secured resembles very closely the sucking of a calf, and that for this reason, the cow "lets down" her milk more freely than when milked by hand. It is also claimed that absolute cleanliness of the milk may be secured when this method of milking is employed.

Waxed Cheese.

The Victorian Journal of Agriculture publishes the results of some experiments with cheese kept under ordinary conditions in a Melbourne warehouse, with the view of showing the effects of coating cheese with paraffin wax, as practiced to some extent in Canada. Four small cheese, weighing 46½ lbs., were coated with paraffin wax on October 8th, 1903, and four duplicates of the same weight were left uncoated. The minimum temperature of the store for 14½ weeks was 58 degrees, whilst the maximum was 70 degrees, and the mean 65 degrees. On January 19th, 1904, the cheese coated with wax weighed 44½ lbs., showing a loss of 1½ lbs., or 3.22 per cent., whilst the plain duplicates weighed 43½ lbs., and lost 2½ lbs., or 5.91 per cent., showing a saving of 2.69 per cent. in weight in favor of the paraffin coating. The cheese coated with wax were adjudged by experts to be superior in flavor and texture to those which were not so treated.

APIARY.

Crop Reports.

Collected by Morley Pettit.

In reply to enquiring post cards, correspondents in many of the counties have been heard from. I am pleased with the number of good reports received so promptly. It is the extension of this spirit of mutual help which will make our Apiary Department of increased value. Every beekeeper who reads this article should send his crop report as soon as possible. (Address Morley Pettit, Belmont, Ont.)

HONEY PLANTS.

Our main sources of white honey are white and alsike clover. Basswood, once an important honey plant, is becoming so scarce it does not cut much figure except in a few favored places. Reports from the southern counties show prospects of a light crop. Those from the north are more hopeful. In any case the supply is bound to be light owing to the fact that probably 70 per cent of the colonies were killed by cold weather last winter and the backward spring. Those remaining were, as a rule, in poor condition for the honey-flow. Clover was about two weeks late coming in bloom, and the weather has been anything but favorable since.

OUTLOOK FOR SUPPLIES.

Kent, Elgin, Norfolk, Haldimand, Brant, Wentworth and Perth report short crops of clover. Basswood promises good, but is always uncertain, being so dependent on the weather. Our Wentworth correspondent suggests that if we had a strain of bees that could make honey out of rain, we could have a large crop. Waterloo and Halton report clover doing well, and good prospects for basswood.

The same story of excessive rain, with cold nights and mornings, comes uniformly from Wellington, Peel, York, Ontario, and Durham. This has both good and bad effects. It checks the swarming impulse, so that little trouble comes from that source this year. All our plans for control of swarming work to perfection. It also holds back the clover, keeping the bloom fresh

for a long time. On the other hand, bees cannot gather honey on account of the cold, and haying comes on as usual to cut down the fields of alsike.

It is a little early for reports from northern counties. They are hopeful, and after their total failure last year, and severe winter losses, they will be able to appreciate a good yield of honey.

GARDEN AND ORCHARD.

Wood Ashes and Lime as Fertilizers.

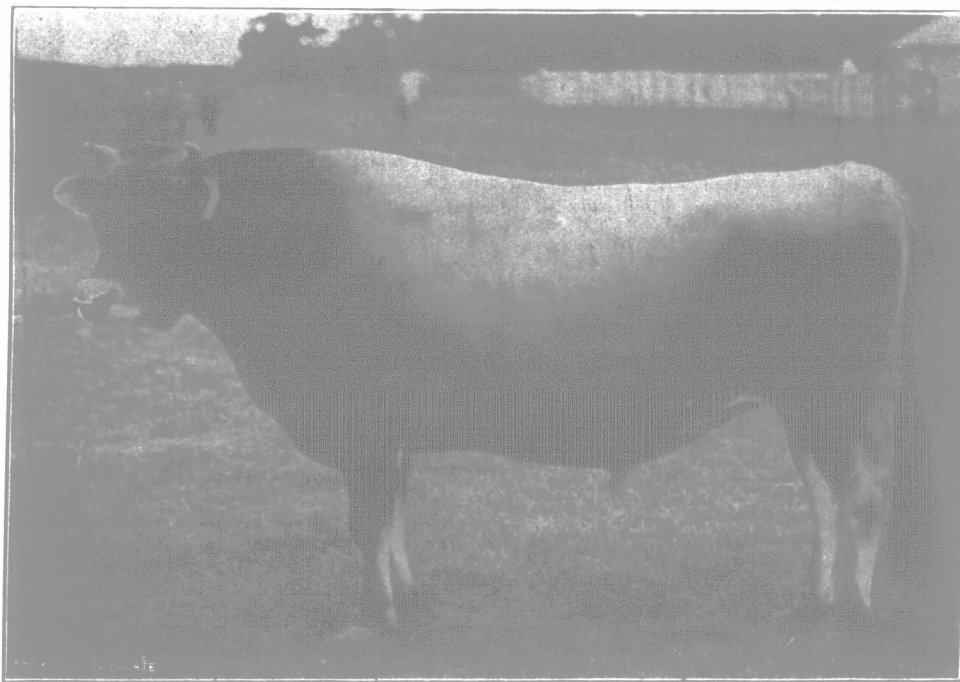
W. M., Elgin Co., Ont., writes: "I have about three thousand celery plants, and would like to know if it would be of benefit to apply wood ashes about the roots. The soil is a sandy loam. Also, would lime applied about cabbage roots be of use?"

There are so many things to be considered in the application of special fertilizers that one must know something of the principles involved in order to do the work intelligently. All crops require nitrogen, phosphoric acid, and potash, but crops differ in their ability to make use of these. Some crops require more nitrogen, others more potash. The legumes, for example, such as peas, beans and clover, draw freely upon the nitrogen of the atmosphere, and, as a rule, are most benefited by applications of potash; while crops such as celery, lettuce, and other leaf crops, cannot make use of the nitrogen of the atmosphere, and are usually benefited by applications of nitrogenous fertilizers. Another thing to be considered

Selling the Apple Crop.

A decision of more than ordinary interest to fruit-growers and farmers was recently rendered at Toronto, by the Common Pleas Division of the High Court of Justice, composed of Chief Justice Sir William R. Meredith, and Justices McMahon and Teetzel. The case in dispute was that of the appeal of Culp, an apple dealer of Lincoln County, from the judgment of the county court of Lincoln, which awarded an apple-grower named Lee \$200 damages for the loss of his apple crop through the neglect of Culp to remove the same before they were frozen last fall. The evidence established the following facts:

Plaintiff agreed to sell and the defendant to buy all the apples in plaintiff's orchard of first and second quality, the apples then being on the trees, at \$1 per barrel for firsts, and 75c. per barrel for the seconds; plaintiff to retain the culls; plaintiff to pick the apples and place them in piles in the orchard; defendant to furnish barrels and pack the apples; plaintiff to convey them to station when barrelled. Plaintiff did pick all the apples, and placed them in 64 piles in the orchard, and notified defendant that they were ready for packing. This was about 1st November, 1903. No specific time was agreed upon when the apples should be packed or when payment should be made. Defendant was disappointed in securing barrels, and packed only twelve barrels of the apples. These were delivered to him. The others remained on the ground, and were frozen and destroyed late in November. There was conflict of evidence as to whether anything was said, when the bargain was made, about protecting the apples against frost, and the County Judge found as a fact that that matter was not imported into the bargain as a term thereof. He also found that defendant at no time said anything to plaintiff about lack of barrels, nor did he notify plaintiff before the apples were destroyed that he would not take them, or that plaintiff might sell them to someone else; but on 17th November defendant sent his bookkeeper to plaintiff to ask plaintiff to cover the apples thicker, and plaintiff said he had not the straw, or it would take too much. On 24th November the same bookkeeper asked plaintiff to get men and put the apples in the cellar, but this was not done. The County Judge held that the apples were selected and appropriated by plaintiff, and approved of by defendant,



Brompton.

Jersey bull. Born April 2, 1900. Winner of first prize, Royal Show, 1904. Owned by Mrs. McIntosh, Romford.

is the nature of the soil, as different soils differ very much in the quantities of plant food which they contain, and the condition in which the plant food is held in the soil. For this reason, there is no better way of ascertaining what is required in the way of fertilizers than for the grower to make a little experiment, and find out what his soil is most in need of. On general principles, you would be quite safe in applying wood ashes for celery, or most any other crop, particularly upon sandy soils, which are usually more or less lacking in potash, as wood ashes are particularly rich in potash, and contain also about one per cent. of phosphoric acid. Lime is not a necessary element of plant food, but is useful to liberate plant food in the soil and usually gives good results upon soils rich in humus, which it helps to decompose and make available as plant food. It should never be applied, unless some crop is grown upon the soil immediately after to take up the plant food; otherwise this is liable to be lost in drainage water, in which case lime would deplete rather than increase the fertility of the soil. Your best plan would be to try portions of a row with and without lime, and with and without wood ashes, and note the results. The information so gained would be far more valuable than anyone could give you without knowing the exact conditions. L. H. HUTT.

O. A. C., Guelph.

"Nothing too Good for the Irish."

"There is nothing too good for the Irish," therefore the "Farmer's Advocate" for me. Algoma, Ont. WILL H. BURROWS.

and that the property in the unpacked apples passed to defendant, with all the risks of destruction before actual delivery. The High Court held that this conclusion was not warranted. It did not appear by the evidence that anything was said as to who should select the apples and grade them into firsts, seconds and culls, but it must be inferred, from all the circumstances, that defendant and his packers were to do this with the co-operation or concurrence at least of plaintiff, and it must also be assumed that payment was to be made on delivery of the apples when packed. There were two circumstances or conditions in the agreement between the parties which combined to defeat plaintiff's contention that the property in the apples passed to defendant, the fact that the sale was a part only of a bulk quantity, and the fact that to determine the quantity, quality and total price, defendant was to separate from the bulk and classify the goods to be taken by him, plaintiff retaining the culls; and in this work plaintiff was to co-operate or to concur, and had the right to insist upon the selections being made in accordance with the recognized standards of quality. Before there can be a bargain and sale, as distinguished from an executory agreement, the parties must be agreed as to the specific goods on which the contract is to attach, and it makes no difference that the goods are so far ascertained that the parties have agreed that they shall be taken from some specified larger stock. The law gives effect to the intention of the parties in determining whether the property passes, but not in the absence of an unequivocal expression of intention by both parties where the sale is of an unascertained part of a bulk which has to be separated and classified

by one party, with the concurrence or co-operation of the other.

After a careful weighing of the evidence, the Court allowed the appeal and dismissed the action, the grower thus losing the value of his entire orchard crop. The decision is doubtless a learned interpretation of the law in such cases, and the point elucidated should be borne in mind by parties when selling the orchard crop in the future. In cases where there is a possibility of the purchaser being prevented from taking possession of goods, from whatever cause, a written contract should be drawn up, which would ensure the vendor against absolute loss.

Cultivation and Cover Crops.

J. F. M. wishes some information as to cultivation and cover crops in orchards.

The old plan of leaving an orchard in sod is fast giving way to the more improved method of clean cultivation throughout the early part of the season. The chief reason for this is that thorough surface cultivation during the fore part of the season helps to conserve soil moisture, so that it can be made use of in the growth of the tree. Most of our fruit trees make their growth before the middle of July, and any crop growing in the orchard previous to that time robs the soil of moisture which should go to the growth of the tree. The object of a cover crop sown after the last cultivation, about the middle of July, is to take up soil moisture and plant food after the tree has practically ceased growth, and also to protect the roots of the tree from severe freezing during the winter, and to return a large amount of plant food to the soil when the crop is plowed under in the spring. If the ground is left without a cover crop during the latter part of the season, whatever soluble plant food is left in the soil after the trees have ceased their growth is liable to be washed out by fall rains, and in this way there may be considerable loss of fertility. A cover crop of any kind growing in July takes up this soluble plant food, and holds it until it is returned to the soil by decomposition of the cover crop the following spring. If one desires to good reading on this subject, let him get Prof. Bailey's "Principles of Fruit-growing," \$1.25, through this office. H. L. HUTT.
O. A. C., Guelph.

Sowing Cherry Pits—Cultivation.

1. Should cherry pits be frozen in winter in order to induce them to germinate?

2. Is shallow cultivation injurious to potatoes and beans, if done after the plants have come in blossom?

L. A. S.
Cherry pits must be cracked open, either by hand or by frost, before they will germinate. The best plan is to allow the frost to do the cracking. Care must be taken that the seeds do not become dry or brittle or their vitality will be destroyed. They may be sown as soon as ripe, or, if kept till spring, should be mixed with soil, and be exposed to frost during the winter, and then be screened out and planted as early as possible in the spring.

One of the chief objects of cultivating a hoed crop, apart from the destruction of weeds, is to conserve soil moisture by means of the soil mulch left after cultivation. In the case of a potato crop, usually by the time the plants are in bloom the tops are large enough to shade the ground and prevent evaporation of moisture from the surface. If at the time of blooming the tops are not large enough to entirely shade the ground, there can be no objection to shallow cultivation. If the cultivation has been neglected for some time so that roots are formed near the surface, even shallow cultivation will destroy some of these. Cultivation should be no deeper than necessary to leave an inch or two of loose soil on the surface.

I can see no reason why careful shallow cultivation would in any way injure beans, either before or after blooming. In what way would you expect injury from it?

O. A. C., Guelph. PROF. H. L. HUTT.

Changes in Fruit Division.

Mr. W. A. McKinnon has resigned his position as Chief of the Fruit Division of the Dominion Department of Agriculture at Ottawa, to accept the office of Commercial Agent of the Department of Trade and Commerce at Bristol, England, where he will reside. It is understood that the vacancy in the Fruit Division will be filled by the promotion of Mr. Alex. McNeill, Chief Inspector, to the head of the Division. Both will be recognized as excellent appointments. Mr. McKinnon, with his wide knowledge of the products of Canada, and his former acquaintance with the British markets from personal contact, will be able to do a great deal in promoting the sale of these products in one of the largest consuming markets of Great Britain; while Mr. McNeill, by his wide knowledge of the fruit industry of Canada, and his enthusiasm in the work, will be able to do even better service in his new office than he has rendered in his former position.

The Improved California Wash.

In the lime, sulphur and salt solution, known as the California wash, we have no doubt one of the best remedies for the San Jose scale. The greatest objection to its use has been the trouble and time required to prepare it for application. It was necessary to boil the sulphur and lime together for two hours, in order to get the proper combination of the lime and sulphur. This is now likely to be avoided, and the union of the lime and sulphur effected by the use of lye. It was also required to be applied while hot, or, at least, while still warm. Apparently, this will not be necessary with the improved mixture. There is a diversity of opinion as to the efficacy of salt in the original formula, the experience of many who have used it going to show that as good results were obtained without the salt as with it. But with the lye, sulphur and lime combination we will have, in the opinion of the writer, one of the very best spraying mixtures ever devised, not only for the destruction of scale insects, but for the general health of the trees, and it will have great effect as a fungicide as well. Orchardists have been in the habit of using lye as a wash for trees for removing the oyster-shell bark louse, preventing borers, and toning up the bark of the tree. Lime and sulphur are both fungicides, and when we have a combination of the three we will have an ideal mixture.

These mixtures are being tested this year in Southern Ontario, where the San Jose scale is prevalent, and some definite results will be reported at the end of the season. This mixture would be the very best thing to use early in spring while the trees are still dormant, for the first spraying. It is not intended to be used on the foliage, but it could be followed up with the Bordeaux mixture just before the blossoms open, and again just after the blossoms fall. This course of treatment should clear out the oyster-shell bark louse and fungus spores, and bring the trees into the very best state of health. Fortunately, the San Jose scale has not spread over the country, the infestation being limited as yet, but the oyster-shell bark louse is everywhere, and is doing more damage to our orchards than most people are aware of. It is easily removed from the trunks of trees by the use of an alkaline wash, but it spreads out to the small branches and twigs, where it can only be reached by spraying.

The results obtained by the use of this and other mixtures will, no doubt, be thoroughly discussed at the next meeting of the Fruit-growers' Association, and all who are interested in the growing of orchard fruits should make it a point to attend. If they cannot do so, they should secure a copy of the report. The surest way to do this is to send the secretary a dollar, and become a member. For everyone at all interested in fruit-culture, if only to the extent of a small garden, it is a good paying investment.

The use of power sprayers, whereby rapid and effective work can be done, and the improved California wash, will no doubt be a great boon to progressive fruit-growers.

The Duchess of Oldenburg.

In the list of early varieties of apples, this well-known variety, of German origin, easily stands first. It is the best commercial early apple we have. In point of productiveness it distances every other variety. It is as hardy as a Siberian crab. Where it will not grow and thrive it is useless to attempt to grow apples. As a cooking apple, it has few equals, and no superiors. It is clean-skinned, bright and handsome in color, and does not scab. For such an immense bearer, it is remarkably uniform in size. The one great problem is to get it marketed satisfactorily. It ripens while the weather is still warm, and often quite hot. Its season is short, and it must be handled quickly. It must be shipped to the large cities, or to the West and north, where apples are not grown. The near home market is always overstocked with it. The British markets will take large quantities of them if they can be landed there in good shape. There are some difficulties in the way of doing that yet. The marketing of the Duchess means quick and prompt handling, the use of ice and cold storage, and refrigerator cars. The latter are being brought up to a fair state of efficiency, but the cold storage on ocean steamers has not yet been brought to that degree of exactness and uniformity that is required in order to ensure the safe carriage of perishable goods. Many, however, are delivering such perishable stuff as Duchess apples in first-class order, and, no doubt, whatever defects there may be will be removed and the business of transport of our perishable products reduced to an exact science. It seems to take too long in some cases to get the temperature down to the proper point. Then, after that, it seems to get too low. The temperature should be got down to the proper point as soon as the cargo is placed, and should have an upward curve toward the end of the journey. These things are matters of detail

to be worked out by those having the problem in hand.

But there are some matters of detail claiming the attention of the grower and shipper, which, if not attended to, the fruit will not carry well, no matter how perfect the system of cold storage may be. First, there is the picking of the fruit. There is just a proper time to pick a Duchess apple. It should be about full-grown and colored, but not ripe. It must be handled with care, and here is a point probably where more damage occurs than any other. Of all commercial apples, the Duchess should receive the most careful handling. They should be handled just as you would handle eggs. The barrel is too large a package, they should be put in boxes. It takes a long time to reduce the temperature in the center of a barrel in the best cold storage. It takes too long to reach it. It takes, probably, two days to get the temperature down to the proper point in the center of a fairly tight barrel, so that the use of the box is clearly indicated for the shipment of Duchess. As we have now a standard box for apples, 10 x 11 x 20 inches, inside measurement, we know what is meant when we speak of the apple box. As the weather is most likely to be warm when the Duchess is packed, one great consideration is to have some cool place to put them as soon as picked. The sooner the cooling process is begun, the better, but is not best to be too rapid at first, but it is important to get the heat that is absorbed from the sun and atmosphere out of them before starting on their journey. The question of whether the Duchess will pay is a question of markets, proper handling and transport. So far as the individual merits of the apple itself is concerned, on account of the qualities already stated, if a sufficient market were assured, even if sold at a comparatively low price, it would be one of the most profitable commercial varieties on the whole list. Whether it is advisable to plant it extensively, or whether it is already overdone, is a question that cannot be definitely answered at present, but with the development of the West, and the improved facilities for sending them to British markets, they should not go begging for a market in the future.

POULTRY.

Fattening Chickens for Market.

In order to have the chickens plump and well fitted for the market when they are at the most profitable age, they should be placed in the fattening crates when they are three months old. It is not meant by this that chickens cannot be fattened profitably when they are more than three months old. Suitable market chickens of any age will show gains in the crates. In selecting chickens for fattening, those should be fattened that have a good constitution, denoted by short, strong beak, head wide between the eyes, lively appearance, and that are of medium size, and are of a broad, square shape, with short, straight legs set well apart.

Equipment for Fattening.—In fattening chickens for market, it is advisable to use the fattening crates recommended by the Poultry Division, Ottawa. If only a small number of chickens are to be fattened, packing-boxes of suitable dimensions can be adapted for the purpose. The open top of the box should become the bottom of the crate, and one side should be removed for the front. Laths should be nailed up and down the front, and also lengthways of the crate to form the floor. The laths are placed at the same distance apart as recommended in the construction of the fattening crate. A board should be loosened in the top of the crate to remove the chickens from, and a feed-trough arranged in front. A shaping-board and shipping-boxes are also required.

Fattening Rations.—A satisfactory fattening ration is one that is palatable, and that will produce a white-colored flesh. Ground oats, finely ground, or the coarser hulls sifted out, should form the basis of all the grain mixtures. Ground corn fed in excess will result in a yellow-colored flesh of inferior quality; ground peas impart a hardness to the flesh that is not desirable. Ground oats, ground buckwheat, ground barley and low-grade flour are the most suitable meals for fattening.

Satisfactory Meal Mixtures.—

- (1) Grounds oats (coarser hulls removed).
- (2) Siftings from rolled oats (no hulling dust should be included).
- (3) Two parts ground oats; two parts ground buckwheat, one part ground corn.
- (4) Equal parts ground oats, ground barley and ground buckwheat.
- (5) Two parts ground barley, two parts low-grade flour, one part wheat bran.

The ground meal should be mixed to a thin porridge with thick, sour skim milk or buttermilk. On the average, ten pounds of meal require from fifteen to seventeen pounds of sour skim milk. A small quantity of salt should be added to the mash.

When sufficient skim milk or buttermilk cannot be obtained for mixing the mashes, a quantity of

animal or raw vegetable food should be added to the fattening ration.

The chickens should remain in the fattening crates for a period of twenty-four days, more or less, depending on the conditions of the bird. Before they are placed in the crates, they should be well dusted with sulphur to kill the lice. They should be again sulphured three days before they are killed.

The First Week.—It is necessary to feed the chickens lightly the first week they are in the crates. A small quantity of the fattening food should be spread along the troughs, and as this is eaten more food is added, but not as much as the chickens would consume. The food should be given three times a day, and, after feeding, the troughs should be cleaned and turned over. The chickens should receive fresh water twice a day, and grit two or three times a week while in the crates.

The Second Week.—The chickens should be given twice a day as much food as they will eat. Half an hour after feeding the feed troughs should be cleaned and turned over.

The Last Ten Days.—At the commencement of this period, one pound of tallow a day should be added to the mash for every seventy chickens. The quantity of tallow should be gradually increased, so that at the latter part of the period one pound of tallow is fed to 50 chickens. The chickens should receive the fattening food twice a day.

W. A. CLEMONS.

How to Prepare a Fowl for the Oven.

The best way of killing is by dislocation of the neck. After the feathers have been removed, lay the bird upon its back upon the table, with the feet away from the operator, and make a small cut with the knife in the skin immediately above the hock of each leg; trim the pinions, cutting away the skin on the outside, as this is always the part to burn in cooking; then lay the bird breast downwards, with the legs towards the operator, and make a cut in the skin of the neck, about three inches from the back, and draw the skin backwards until the backbone is seen, and a white mark will be exposed, put the point of the knife in this and cut off the head and neck; now turn the bird round, back on the table, and press the thumb firmly downwards into the orifice between the two sides of the mery-thought, and cut out the crop. Now insert the finger within the carcass of the bird under the breast-bone, loosening all the internal organs from the front; turn the fowl round and make a transverse cut just below the "parson's nose," and insert the finger and cut off the tail; next insert the two middle fingers, and hook them over the gizzard and gently draw, when, if the operation has been rightly performed, all the inside will come out at the same time.—[Irish Exchange.

Hot-weather Notes on Chicken Rearing.

A few hints for the young stock now that the weather is becoming hot and dry. Spray the dust bath for the young stock. The dust they stir up is almost as injurious to their lungs as it is to the lice. Many people think that lice kill them in hot, dry weather, but, in reality, if they breathe in much dust it frequently kills quite a number. Also, it is better to omit meat altogether from their diet; they find more insects than is good for them at this time of year. Feed as much dry food as possible, and if milk is to be given to them, mix it in with the mush, as they should have only clean, clear water during the "dog days." Save all your scraps of bread and toast them black. Put a good-sized piece into every drinking cup. It prevents thirst, and is more nourishing than plain water. Never soak bread in hot milk or water, nor boil it with the scraps. It is the cause of a list of ills. Keep your birds growing. While I was in Victoria I was selling laying pullets in June. Again, do not be afraid to use a good poultry spice with the food, and use it in moderation. Because a pinch of it among a dozen will make them lay and keep healthy, it does not follow that a tablespoonful will induce any hen to lay more than an egg a day. Above all, don't tire of your flock because the weather is "so hot." A chick cannot be neglected for one day of its life.

B. C. (MRS.) OCTAVIUS ALLEN.

Several readers who have lately sent in questions to be answered in the Farmer's Advocate forgot to comply with our rule which requires the full name and P. O. address to be given in every instance. We can pay no attention to anonymous communications or enquiries. Please read and observe the rules of the "Questions and Answers" Department.

EVENTS OF THE WORLD.

Revolutionists are again active in the Balkans.
Anti-Christian riots have broken out in a district 85 miles west of Chefoo.
Cholera has broken out in Persia, and grave fears are entertained that it may spread to European Russia.

Judge Parker has declared that he will not accept the Democratic nomination for the Presidency unless it is made clear that he stands for the maintenance of the gold standard.

Two Russian steamers, the St. Petersburg and the Sevastopol, have passed out of the Black Sea, and are on their way to Vladivostok, where they will be utilized as hospital ships.

The Chinese Government has ordered the punishment of the soldiers who caused the death of Louis Etzel, the American newspaper correspondent, and has provided that \$25,000 be paid to the widowed mother of Etzel, who lives in Denver.

A despatch from Batavia, the capital of the Dutch East Indies, says that the expedition to the northern portion of Sumatra has met with several encounters with the rebellious Achinese, of whom over 600 have been killed. The Dutch losses in all were 46 killed and wounded.

A most sweeping reform, which will end forever the arbitrary condemnation of political suspects to exile or even death, has been put in force in Russia, by the issuing of an Imperial Decree, which provides that all persons suspected of political crimes shall henceforth be tried in the courts.

Professor Schron, of Naples, after sixteen years study, has been able to prove that phthisis and tuberculosis are two entirely distinct diseases. He describes the microbe of phthisis, which he has succeeded in isolating, as being spiral in form, and exceedingly virulent. His discoveries are looked upon by the medical world as being much more important than those of Koch.

The British advance on Lhasa has begun. Colonel Younghusband has issued a proclamation, announcing that it is the intention of the British Government to secure reparation from the Thibetans for their "overt acts of war," and that any interference with the progress of the party will meet with severe punishment and result in making the terms demanded more severe.

At a meeting in London, on July 14th, which was attended by about 1,800 delegates from all parts of the kingdom, Mr. Joseph Chamberlain was elected President and Lord Lansdowne and Lord Selborne Vice-presidents of the newly-reconstructed Liberal-Unionist Council, Lords Lansdowne and Selborne thus identifying themselves finally as upholders of the Chamberlain policy. A resolution was passed in favor of a complete reform of the British fiscal system, approving the Premier's demand for increased powers to deal with hostile tariffs and "dumping," and expressing sympathy with the proposal for preferential arrangements between the colonies and the motherland.

The announcement of the death at Clarens, Switzerland, on July 14th, of Paul Kruger, has again brought the name of "Oom Paul" to every tongue, and with the announcement comes the recital of the history of a life once full of promise, and not unmarked by courage and ability. Kruger was born in 1825, and in early life made his name famous by his exploits in battles against the Matabele. He arose steadily in the army, until he held the position of Commander-in-Chief, and was then elected President of the South African Republic. His ambition, however, led to those intrigues against the British in 1880 and 1899, which finally brought about his downfall and exile to Europe in 1900. Kruger will be buried in South Africa beside his wife, who died shortly after his departure from the country.

There is a surprising lack of news from the Far East, whence little is reported save the occupation of Yinkow by the Japanese, and the landing of 30,000 Japanese soldiers at Pigeon Bay. The interest this week centers in the fact that the Russian volunteer steamships, Smolensk and St. Petersburg, which recently passed the Dardanelles, are now cruising in the Red Sea, and searching the ships of neutral nations for contraband of war. It is also reported that a guard-ship, the Chernomoretz, carrying ten guns, passed out of the Black Sea on the 18th of July. The whole circumstance has made a decided sensation in all circles, as upon it may hang the question as to whether Russia has not, by this action, violated the treaty of Paris. Developments are awaited with keenest interest.

NOTES AND NEWS.

The Hon. Mr. Sifton will open the Dominion Fair at Winnipeg, on the 25th.

Active preparations for resuming work are being made at the Sault works.

The Australian Government has abolished the post of commandant of the forces.

Another band of Doukhobors has been reported as on the march from Minitonas, Man.

The Palma Trophy is back at Bisley, and will be held there until a challenge has been sent in.

Some Toronto citizens are agitating for systematic dental examination of the teeth of school children.

At Paris, Ont., July 11th, a herd of seven Jerseys belonging to Mr. Horace Hudson was killed by lightning.

Two Boers, representing three hundred families who contemplate emigrating to Canada, are looking after the land.

Andrew Carnegie has sent a check for \$1,000 to help furnish the Midland and Penetanguishene Hospital, Midland, Ont.

Lou Scholes, the winner of the Diamond Sculls at Henley, will not be a competitor at the regatta at St. Louis this year.

Mr. John Maclean, B.A., a graduate of Manitoba University, is the successful Manitoban candidate for the Rhodes scholarship.

A large building containing the stores and records of the Mounted Police at Lethbridge, Alta., was destroyed by fire on July 11th.

Other means of saving the crops of Minnesota from the grasshopper pest having been exhausted, the State Legislature has passed a Bill for that purpose.

Keep the roadsides clean by occasional mowings. The weeds that grow on them are not only unsightly, but are a source of contamination to all the farms in the vicinity.

In a collision between the steamships Verex and Athenian, near the Isle of Orleans, below Quebec, on July 12th, the Verex was almost cut in two. She was, however, immediately beached, and no lives were lost.

In order to induce the attendance of teachers at the Macdonald Institute, Guelph, Ont., a number of scholarships, to the value of \$50 and \$75, will be granted for competition to those teachers who take the three months' course, which begins in September.

Mr. Fred Brown, implement dealer of Durand, Mich., has a daughter who has proved so successful as an implement agent that he has taken her into partnership, and now writes the name of his firm, "Fred Brown & Daughter." This is probably the first time on record in which the word "daughter" has appeared in such a connection.

"The men whom I have seen succeed best in life have always been cheerful and hopeful, men who went about their business with a smile on their faces, and took the changes and chances of their mortal life like men facing rough and smooth alike as it came, and so found the truth of the old proverb, that "good times and bad times, and all times pass over."—Chas. Kingsley.

The annual report of the London Cancer Research fund states that cancer is not, as has been supposed, a product of civilization, but that it pervades the whole civilized and uncivilized world, affecting animals and even fishes, as well as human beings. The report states, moreover, that the prevalence of cancer is not increasing, and that it is not infectious.

The trestle work at Red Sucker Creek, fifty miles east of Schreiber, Ont., was carried away by a cave-in of earth on July 8th. It was 100 feet high and 1,000 feet long. A freight train had just passed over, and a C.P.R. passenger was due in thirty minutes when the cave-in took place. The timely flagging of the passenger, however, saved what might have been a terrible catastrophe.

The construction of the first section of the C.P.R.'s immense irrigating undertaking east of Calgary is now being proceeded with. The tract of land irrigated in this section will, when completed, amount to 300,000 acres, about 400,000 acres in addition being also fitted thereby for dairying and grazing. The cost will be \$1,300,000. If the irrigation of this portion proves a success, operations will be carried on on a much larger scale.

The great Trent lift-lock, the largest of its kind in the world, was formally opened by Hon. H. R. Emmer-son, at Peterboro, Ont., on July 9th. This lock, which was eight years under construction, and cost \$500,000, completes a chain of navigation one hundred and sixty miles long. Its opening was attended by an immense concourse of people, among whom was a large number of members of both Houses of Parliament, conveyed thither by a train run for the special accommodation of the members of Parliament and their friends.

Experiments in shipping fruit in cold storage are being undertaken under the direction of Prof. Reynolds, of the O.A.C., and Mr. G. W. Hunt, President of the

Ottawa Produce Exchange. It is intended to ship a carload of plums, grapes and peaches to Winnipeg by freight, to test the shipping qualities of these fruits, and to find out if such a shipment when properly carried out can be profitably made. The experiment would have commenced with strawberries, but on account of the scarcity of that fruit this year it was found impossible to secure a carload in one locality.

Testing Binder Twine.

Mr. Joseph L. Haycock, in making a tour of Western Ontario last week in connection with his duties as Dominion Inspector of Binder Twine, gave the "Farmer's Advocate" a call. Mr. Haycock reports that twine this year is invariably properly labelled, and the manufacturers show a decided determination to give good measure and weight in the balls. The more expensive grades are still most in demand, and it is probable that the prices of the lower grades will be proportionately reduced another year, in order to unload the supplies and to ease the demand for pure manilla, which seems inclined to go up in price, owing to its liberal use. Mr. Haycock gave a simple rule for determining the length of twine in a ball. Take a sample ball, and press the strands closely together, and note the number required lying side by side to make an inch, then every strand within the inch will represent fifty feet in the pound. If ten strands lying side by side make an inch, then a pound will contain five hundred feet; if eleven strands, five hundred and fifty feet; twelve strands, six hundred feet to the pound, and so on. Having this rule in mind, anyone can test his twine for length, and need not be duped by short measure. In addition to his original duties, Mr. Haycock is now required to check the claims for bounties which Canadian manufacturers are allowed, to put them on an even footing with the U. S. manufacturers, who get a rebate on account of the Philippine export duty on manilla fiber. The bounty is regulated by the quantity of manilla actually used in the factory, but still amounts to a very tidy sum. This year it will probably reach \$25,000 in all. There are eleven Canadian factories in operation.

Notes from Ottawa.

(Special Correspondence.)

Mr. W. H. Hay, who was chief of the agricultural branch of the Canadian exhibit at St. Louis, has returned to Ottawa, and is preparing an exhibit of Canadian goods for the Trades Exhibition, to be held in Islington, England, the coming autumn. Mr. Hay will leave on August 5th, with three carloads of native products. The display will include confectionery goods, groceries, dairy produce, flour, fruit (canned goods), jellies, cheese, honey, meats (canned goods), dressed poultry and fish. The Dominion will have 1,500 square feet on the grounds. Canada has never taken part in this exhibition before, and the venture this year is expected to increase the demand for the natural food products of the Dominion in that part of England. It is probable that Mr. Brodie, of the exhibition branch, will accompany Mr. Hay to England. At present these two officers are travelling in Canada collecting specimens for the display. The exhibition will last six weeks.

Mr. Hay says that in St. Louis there was a large number of enquiries daily from intending immigrants to Western Canada. One of the chief benefits the country will derive from the St. Louis exhibit, he believes, will be large numbers of the best kind of settlers.

At the request of Mr. A. A. Lefurgey, M. P. for East Prince, Hon. Sydney Fisher, Minister of Agriculture, presented to Parliament on July 13th a statement showing the expenditure and revenue of chicken-fattening stations in Prince Edward Island since 1899. The number during that time increased from two to six. The excess of expenditure over revenue for the last two years is much less proportionately than for the previous period. The cost of maintenance, the year ending in 1900, was \$875.23, compared with \$197.88 revenue, from two stations, at Charlottetown and Summerside. The next year for four stations, at Charlottetown, Mount Stewart, Eldon and Alberton, the expenditure was \$1,236.93, as to \$405.50 receipts. Seven stations were operated in 1902, on a smaller scale, the cost being \$1,118.62, and the revenue \$617.16. This was the most profitable year. In 1903 the returns from stations at Mount Forest, Eldon, Alberton, Vernon River Bridge, Rusticville and Glenfinnan, being all that were operated, amounted to \$1,446.99. The cost of carrying on the work was \$3,086.18.

Cold storage is to be provided on the two new turbine steamers of the Allan line, subsidized for ocean mail service by the Dominion Government. This is of considerable importance to Canadian shippers, for these steamers are obliged to make seventeen knots an hour, which is faster than the speed of the subsidized steamers last year by four or five knots. The Government has agreed to pay 2,000 pounds sterling per round-trip to these steamers. This is twice as great a subsidy as has been paid to the Allan Company for the Bavarian and Tunisian. The first of the turbine vessels will start in August next, and the other one about the opening of navigation in the St. Lawrence next year. The Government has no complaint about the cold-storage service on Allan liners, and so there is every hope that the new steamers will be well equipped. There is, however, no stipulation in the contract as to temperature.

A return made to the House of Commons by Mr. Fisher, shows that the Dominion Government did not

contribute anything to the cost of the buildings and machinery at the Maboa creamery in Cape Breton. The money was provided by the Creamery Association, supplemented by a grant from the Provincial Government of Nova Scotia. The Government paid rental last year amounting to \$206.35, and salaries for a butter-maker, an assistant, and manager of skimming station, \$770, which is less than the year before. The quantity of butter manufactured last year was 1,711 pounds, compared with 6,684 in 1902; the length of operation being two months shorter in 1903. No milk or cream was paid for by the Government, the patrons being compensated according to the amount of butter produced. This creamery was a new industry for the district. The supply of milk was much interfered with by railroad work in the district, which created a temporary demand for the product during the period reckoned.

British Cattle Markets.

Mr. A. C. Halliwell, of the Live-stock World, Chicago, who is visiting Great Britain, writes some breezy letters for his papers, in one of which he says:

At the great metropolitan market in London, which is the market for all live stock except what comes from foreign shores, the cattle are taken out of the lairs or sheds for resting, feeding and watering, and are tied up to rails that are securely fastened.

Each "beast," as they refer generally to cattle, is tied by the neck, so it cannot lie down. The "rail" consists of two iron bars running through posts. The rope, after being fastened to the animal's neck, is put over the top of the horizontal and tied to the lower.

When I was told that the cattle were tied up in the open market and exposed for sale at 12 o'clock, midnight, I expressed surprise that perhaps was not very mild, and said I should think 4 or 5 o'clock would be exceedingly early, especially in this country, where general business offices never open until 9 o'clock.

"Bless you," said a cattle salesman, "the market is not only opened at that time, but it is no uncommon thing to have the animals sold, slaughtered, and the meat loaded and on the way to Smithfield before 5 o'clock."

"But how do they see to judge what they are buying and selling?"

"Don't you see the big lamps all through the market? They are all lighted, and, besides, many of the traders are so expert that they could see the weight and quality of a bullock with their hands in the dark, say nothing about gas or electric light."

Here was another idea to me, and perhaps a partial explanation of a well-known fact.

It is well known that British cattlemen handle stock a great deal in trading, and when business is started at midnight, I can well understand at least one reason why they are so expert in the matter of touch.

The cattle display at Islington the latter part of June is never good as to quality.

Only grass cattle and tail-end stall-fed stock are to be seen.

It is literally the season "between hay and grass." The good grass cattle do not come usually until August and after.

That is why this is usually a good season for American and Canadian cattle.

The showing of sheep was only fair as to quality and quantity, and the offerings of pigs were quite small. Sheep are shown in small uncovered pens, holding about 15 to 20 head.

Grass is growing between the cobblestones of the south half of Islington cattle market.

"How do you account for that?" I asked.

"Well, it's on account of your American and Canadian cattle, and the beef that comes frozen from South America and Australia," replied my informant.

"The competition for the British farmer and feeder is growing steadily keener and keener, but still this will always be a great market, you know, because our people are willing to pay a premium on home-grown beef if it is necessary."

There was no use saying just what I thought about this remark.

Islington market is only open two days a week, Mondays and Thursdays.

I was informed that cattle were often brought here on Fridays and Saturdays for Monday, and on Tuesday and Wednesday for Thursday, because the railroads could not handle the stock if owners insisted upon getting to market just in time for sale day.

The stock is all sold by the head, though a good share of it is put over the "weigh bridge."

"I'll bet you a bob I can lay that beast's weight within a stone."

That meant that he was willing to bet a shilling or 24c. that he could guess within 14 lbs. of the weight of a big, fairly fat, grass-fed steer.

"Make it a crown and bitters for the party and I'll go you."

This wager, of about \$1.25 and the beer, was made.

The challenger put the weight at "sixty score two stone," or 1,216 pounds, and the bullock tipped the beam at 1,210 pounds.

As a rule, however, cattle dealers here never think of what an animal weighs on the hoof, they always think in terms of dead weight when trading.

It is claimed here by experienced market men that the system of weighing cattle is an injustice to men who have become expert in their business, and they resist it as another of those American innovations that

is likely to put inexperienced men on even terms with them.

Since cattle have advanced in Chicago sellers of American beef in London and Liverpool say they are selling at about Chicago price, which means that they are losing the freight.

Hind quarters have been selling at 6d. or 12c., and fore quarters at 8½d., or 7½c., making an average of something like 9½c. per lb. for dressed beef laid down in London.

Efforts to advance prices to meet the advanced cost result in driving customers away and allowing consumers to get accustomed to other and cheaper foods.

"What is the most formidable rival of American dressed beef?" I asked of a representative of one of the largest meat concerns in the world.

"Argentine chilled beef is undoubtedly the greatest competitor."

"There is a popular notion to the effect that South America sends only frozen meat to London."

"That is erroneous, as are many more of the popular impressions."

Argentine sends beef, both frozen and merely chilled, and the latter system is rapidly growing in favor, though there are great obstacles to overcome in a five weeks' voyage and passing through the tropics.

Argentine has three-fourths to seven-eighths bred English cattle in large quantities, and the number of good cattle is being steadily increased.

There are now 22,500,000 cattle in Argentina, and about 90,000,000 sheep. As the country only has a population of 4,500,000, these figures mean that Argentina has the largest number of meat-producing animals of any country in the world, population considered.

Australia has some 6,500,000 cattle in a territory as large as America.

In other words, since the drought Australia has no more cattle than the State of Texas.

New Zealand has some 1,460,000 cattle and 18,954,000 sheep. That country is only shipping mutton, having no surplus of beef to send so far.

There is great rivalry between the Welling district on the north island of New Zealand and the Canterbury district on the south island as to the production of good sheep.

Between them they send some of the best carcasses of sheep and lambs that reach the English market.

Canada is proudly referred to as the granary and meat producer of Britain, but with 2,845,000 cattle, and 1,736,000 sheep, it looks as if she had a long way to go before that dream can be realized.

If it were not for the 30 per cent. tariff, a good share of the cattle raised in Western Canada would be sold in Chicago.

Some of them are, as it is, and a good cattleman of Alberta declared that really large numbers of cattle grazed in the Canadian Northwest are drifted down over the line and sold to men who can pass them along to where they can be properly finished.

That is why Canadians are so very anxious for Britain to admit their cattle into the interior.

Canada is not destined to be a very strong factor in the meat trade.

American Breeders' Association.

The general chairman of the membership committee of the American Breeders' Association, Mr. Eugene D. Funk, Bloomington, Illinois, is progressing with his campaign for a large membership for that new organization. Animal breeders, plant breeders, scientists interested in heredity and evolution, and others who are interested in plant and animal improvement, are asked to become members. The secretary, Prof. W. M. Hays, St. Anthony Park, Minnesota, to whom all remittances are made, reports daily responses in the way of remittances for membership. The annual membership fee is \$1.00. Life memberships at \$20 have been received from Philip de Vilmoir, head of the great seed-house of Paris, France, and another from the Zoological Laboratory, Naples, Italy. A number of annual foreign memberships at \$2.00 have also been received.

The Boom in Wool.

An authority predicts an unprecedented shortage of wool, and contends that no difficulty would be experienced in cornering that staple, as cotton was recently manipulated. Buyers are fairly scrambling after a share of the season's clip, and contracts have in many instances been made before wool has been severed from the sheep's back. There can be no doubt that high prices for wool will rule for several years to come.

T. C. Power, of Montana, who is well posted on the situation, says the numerical strength of United States flocks has decreased 20 per cent. in the last year, and reduction is still the policy of the sheepman. Australia's ruined sheep industry may never be restored to its former prosperity; the Boer war put South Africa out of the business for a term of years at least, and the native sheep industry in the United States has dwindled down to infinitesimal proportions.

These conditions justify the assertion that sheep-raising must be profitable. It is an opportunity every farmer in the grain-raising belt should embrace without delay.—Live-stock World.

Live-stock Shipments.

Statement of live stock shipped from the Port of Montreal for week ending July 10th, 1904, as compiled by Robert Bickerdike & Co., Ltd., Dominion Live-stock Exchange, Montreal: Cattle, 4,190; sheep, 2,431.

MARKETS.

Prices for nearly all kinds of farm produce show improvement. Hogs have risen to \$5.25, grain is strong and higher, wool is in great demand, fruit sells rapidly, and cheese keeps moving, although seven and eight cents are not as good figures as were ruling last season. For the next six weeks, however, market prices will not be the most engrossing subject, as the wheat is already turning, and considerable hay has yet to be got in.

LIVE STOCK.

Toronto Quotations.

Exporters—Choice, well-finished, heavy exporters are worth \$5 to \$5.50 per cwt.

Export bulls—\$4 to \$4.25; medium at \$3.75 to \$3.85.

Export cows—Prices range from \$3.50 to \$4.

Butchers—Choice picked lots of butchers', equal in quality to best exporters, 1,100 to 1,200 lbs. each, \$4.85 to \$5; loads of good, \$4.50 to \$4.75; medium, \$4.25 to \$4.50; common, \$3.50 to \$4; rough and inferior, \$2.75 to \$3.25 per cwt.

Feeders—Feeders weighing from 950 to 1,050 lbs., of good quality, \$4 to \$4.25 per cwt.

Stockers—Choice yearling calves, \$3.25 to \$3.50; poorer grades and off-colors, \$2.75 to \$3.25, according to quality.

Milch cows—Milch cows and springers, from \$25 to \$50.

Sheep—Export ewes, \$3.65 to \$3.75; export bucks, \$3 to \$3.25 per cwt.

Spring lambs—Prices range from \$3.50 to \$4.50 each.

Hogs—Straight loads, fed and watered, \$5.25 per cwt., and \$5 for lights and fats.

GRAIN AND PRODUCE.

Toronto Wholesale Prices.

Wheat—There is a better demand, and the market is a cent or two higher for both winter and Manitoba wheats. No. 2 red and white, 90c. to 91c., west and east, and some holders ask 92c. at outside points. Goose is steady at 79c. for No. 2, east. Spring, 85c. for No. 2, east. Manitoba wheat is a cent higher. No. 1 northern is quoted at 96c., No. 2 northern at 93c., and No. 3 northern at 90c. at Georgian Bay ports, and 6c. more grinding in transit.

Millfeed—Is steady at \$16.50 for cars of shorts and \$15 for bran in bulk, west or east. Manitoba millfeed is steady at \$19 for cars of shorts and \$18 for bran, sacks included, Toronto freights.

Barley—41c. for No. 2, 39c. for No. 3 extra, and 37c. for No. 3, west or east.

Buckwheat—45c. for No. 2, west or east.

Rye—57c. to 58c. for No. 2, west or east.

Corn—Is steady at 45c. for cars of Canada, west. American is firmer at 58c. for No. 2 yellow, 57c. for No. 3 yellow, and 56c. for No. 3 mixed, in car lots on the track, Toronto.

Oats—Are firmer. No. 1 white are quoted at 32c. to 33c., and No. 2 white at 32c. to 32c., east. No. 2 white are quoted at 31c. to 32c., west and middle freights.

Peas—60c. to 61c., No. 2, west or east.

Baled Hay—Arrivals here are fairly large. Car lots on track are quoted unchanged at \$8.50 to \$9 per ton.

Baled Straw—\$5.50 per ton for car lots on track here.

Butter—Receipts are large, especially in the line of dairy rolls. Dealers say there is far too much of this kind coming forward, and that the quality of much of it is very poor. Some dealers are packing it into tubs, and selling it for cooking purposes. Quotations for rolls are lower.

Creamery, prints17c. to 18c.

Creamery, solids15c. to 16c.

Dairy tubs, good to choice12c. to 13c.

Dairy, inferior grades9c. to 11c.

Dairy pound rolls, good to choice11c. to 13c.

Dairy, inferior9c. to 10c.

Cheese—Is quoted unchanged, although the market has an easier tone. Large, 8c., and twins, 8c.

Eggs—Receipts are still light, and the shrinkage is large. Quotations are firm at 16c. to 16c.

Potatoes—Old stocks out of store are quoted at 70c. to 75c. There are not enough new coming to fill the demand, and the market is firm in tone at \$3.75 to \$4 per barrel, and about \$1.50 per bushel.

Poultry—Continues quiet, and quotations are unchanged. Spring chickens are quoted at 20c. per pound, and yearlings and old hens at 11c.

Retail Prices, Toronto Street Market.

Table with 2 columns: Item and Price. Items include Wheat, white; Wheat, red; Wheat, goose; Wheat, spring; Oats; Barley; Rye; Peas; Hay, No. 1, timothy; Hay, mixed or clover; Straw, sheaf; Straw, loose; Dressed hogs, light, cwt.; Dressed hogs, heavy; Butter; Eggs, new laid; Old chickens, pair; Old chickens, per pound; Spring chickens, per pound; Spring chickens, per pair; Turkeys, per pound; Spring ducks, per pound; Potatoes, per bag; Potatoes, new, peck.

Cheese Markets.

Brantford, July 12.—1,493 boxes offered. All sold, viz., 126 at 7 7-16c., 77 at 7c., 650 at 7 9-16c., 640 at 7c.

Jagersoll, July 12.—270 colored June sold at 7c.

Campbellford, July 12.—2,125 cheese boarded. Magrath bought 625, Alexander 120, Bird 1,300 at 7 11-16c.

Sterling, July 13.—1,240 boxes boarded; sales, 1,140 at 7c., balance unsold.

Pictou, July 13.—1,170 boxes, all colored, boarded. Highest bid 7c., and no sales.

Woodstock, July 13.—805 boxes white and 2,575 boxes colored cheese offered. The prices bid ranged from 7c. to 7 11-16c., only one lot white being sold at 7 11-16c.

Kingston, July 14.—1,555 boxes boarded, 950 white and 605 colored. Highest bid, 7c., at which 300 were sold.

Brockville, July 14.—2,887 boxes were registered, 795 white, balance colored; 7c. bid on board; none sold. This price probably cleared everything on curb.

Madoc, July 14.—965 boxes of cheese were boarded. Sold, 700 at 7 9-16c.; balance unsold.

Vankleek Hill, July 14.—1,757 white and 197 colored cheese boarded here to-night. All sold on the board, with the exception of 406 boxes.

Tweed, July 14.—695 cheese boarded; 270 sold at 7c.; 315 sold at 7 9-16c.; balance unsold.

Perth, July 15.—2,540 cheese were on the market to-day; 2,040 white, 500 colored; all sold; ruling price, 7c. to 7c.

Napanee, July 15.—2,115 boxes offered, 1,210 white and 905 colored. Sales, 1,210 white and 705 colored, at 7c.

Ottawa, July 15.—2,310 boxes boarded to-day, 1,516 white, 794 colored; 7c. was offered for colored, and 7c. for white. Fifteen out of twenty-four factories boarding sold at these figures.

Farnham, Que., July 15.—Eight factories offered 657 boxes cheese and 86 boxes of butter to-day. Cheese sold at 7c.; butter at 17c.

Iroquois, July 15.—1,080 colored and 120 white cheese were boarded; 7c. bid; no sales. A few lots sold on the street at 7c.

Huntingdon, Que., July 15.—Twelve factories boarded 399 boxes of white cheese and 325 boxes colored cheese. Fifteen factories boarded 619 boxes salted butter. Cheese sold for 7c.; butter all sold.

Winchester, July 15.—123 colored and 1,287 white registered; 7c. bid; no sales on board.

Montreal Markets.

Montreal.—Fair demand for local account, although very little is done.

Oats—Prices are still 37c. store for No. 3, and 38c. for No. 2.

Peas—About steady, at 69c. afloat, Montreal.

Barley—No. 2 barley, 49c.; No. 2 extra, 48c.

Rye—No. 2 rye, 62c.

Flour—It is practically impossible to quote the market for Manitoba flour accurately any longer, owing to the keen competition now going on between the large Manitoba millers. Official prices are \$4.50 for strong bakers', and \$4.75 to \$4.80 for patents. But it is said that these figures are being cut wherever necessary. Winter wheat patents, \$4.75 to \$4.90; straight rollers, \$4.60 to \$4.70; straight rollers in bags, \$2.15 to \$2.25.

Feed—Manitoba bran, in bags, \$11.50 to \$16.50; shorts, \$17 to \$17.50 per ton; Ontario bran in bulk, \$16 to \$17; shorts, \$17 to \$18; mouille, \$26 to \$28 per ton, as to quality.

Hay—The market is easy, owing to the heavy supplies at present in Montreal. No. 1, \$9.50 to \$10 per ton on track; No. 2, \$8.50 to \$9; clover, mixed, \$7 to \$7.50, and clover, \$6.50 to \$7.

Beans—Choice prime, \$1.35 to \$1.40 per bushel; \$1.30 in car lots.

Hogs—Fresh killed abattoir hogs, \$7.50 to \$7.75; live hogs, \$5.50 to \$5.70, weighed off cars.

Cheese—Ontario, 9c.; best Quebec, 7c. to 7c.

Eggs—Select new laid, 17c.; straight gathered candled, 15c.; No. 2, 13c. to 14c.

Butter—Fancy grades, 17c. to 17c.; ordinary finest, 16c. to 17c.; western dairy, 14c. to 14c.

Wool.

The advance at the London (Eng.) wool sales and the excitement in the Boston market seem to be having the effect of inducing holders of new Ontario clip to hold for higher prices. There is a good inquiry from the United States for both Canadian fleeces and combing, and several cars have been shipped the past week. The demand for the home mills is rather slow.

Fleeces—The offerings continue light, the demand is good and the market firm at 18c. to 19c. for washed, 14 to 14c. for rejected, and 11c. to 12c. for unwashed.

Pulled Wools—Are in fair demand, and the market is firm. Two cars of combing and supers were sold for export to the United States the past few days. Local dealers quote supers at 20c. to 21c., and extras at 22c. to 24c.

Buffalo Markets.

East Buffalo, N.Y.—Cattle—Prime steers, \$6 to \$6.50; shipping, \$5.25 to \$6; butchers', \$4.50 to \$5.75; heifers, \$3.50 to \$5.50; stockers and feeders, \$3 to \$4.35.

Veals—\$5 to \$7.50.

Hogs—Pigs, \$5 to \$6.10; roughs, \$4.80 to \$5.10; stags, \$3.75 to \$4.25; dairies, \$5.75 to \$6.

Sheep and Lambs—Lambs, \$5 to \$8; yearlings, \$5.50 to \$6.25; wethers, \$4.75 to \$5.25; ewes, \$4 to \$4.25; sheep, mixed, \$2.25 to \$4.75.

Chicago Markets.

Chicago.—Cattle—Good to prime steers, \$5.30 to \$6.40; poor to medium, \$4.50 to \$5.25; calves, \$2.50 to \$5.30; Texas-fed steers, \$4.50 to \$5.20.

Hogs—Mixed and butchers', \$5.15 to \$5.55; good to choice, heavy, \$5.40 to \$5.55; bulk of sales, \$5.30 to \$5.45.

Sheep—Good to choice wethers, \$4.25 to \$5; fair to choice mixed, \$3.50 to \$4.25; native lambs, \$4 to \$7.

British Cattle Market.

London.—Canadian cattle are firm at 12c. to 13c. per pound; refrigerator beef, 11c. to 11c.; sheep, 10c. to 12c., dressed weight.

ILLUSTRATIONS.

Table with 2 columns: Title and Page. Items include Hackney Mare, Fair Nell 65; All Fours 145 C. S. B., 459 A. S.; B.; Brompton.

EDITORIAL.

Table with 2 columns: Title and Page. Items include Declare War on Weeds; Conduct of Auction Sales; The Basis of the Egg Business; Verdict of a Business Firm; Observation in the Country; Echoes.

HORSES.

Table with 2 columns: Title and Page. Items include Lightning Stroke; The Conformation of the Drafter; The Hackney Horse.

STOCK.

Table with 2 columns: Title and Page. Items include Infective Animal Diseases; Beats all Other Weeklies Now.

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APIARY.

Table with 2 columns: Title and Page. Item: Crop Reports.

GARDEN AND ORCHARD.

Table with 2 columns: Title and Page. Items include Wood Ashes and Lime as Fertilizers; Selling the Apple Crop; Cultivation and Cover Crops; Sowing Cherry Pits—Cultivation; Changes in Fruit Division; The Improved California Wash; The Duchess of Oldenburg.

POULTRY.

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NOTES AND NEWS.

Table with 2 columns: Title and Page. Item: Testing Binder Twine; Notes from Ottawa; British Cattle Markets.

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MARKETS.

Table with 2 columns: Title and Page. Item: HOME MAGAZINE.

QUESTIONS AND ANSWERS.

Veterinary.

Table with 2 columns: Title and Page. Items include Unthrifty calf; calf with cough; crippled pigs; Mare quids her food; indigestion; scrotal hernia, etc.; miscellaneous enquiries.

Miscellaneous.

Table with 2 columns: Title and Page. Items include A bad weed in grain; care of young bull; yarrow—milfoil; two bad weeds obstructing the highway; ants in orchard; the Belgian cross; False pretence; expropriation of water supply; custody of traps; green crop for manure.



"Summer's sweetly calling
To the hills and plains;
Singing with her south-winds,
Smiling through her rains.

"With her lowland shadows,
With her rippled streams:
In my violet-valleys
Rest you, with the dreams!"

Two Pictures.

By Mary Wood-Allen.

No. I.

Little Agnes Martin had a broom and a dustpan among her Christmas gifts. She was very anxious to use them, but had only succeeded in annoying her mother with them. When she saw her mother preparing for sweeping day, she was overjoyed.

"Oh, I can help sweep, can't I, mamma?" and she ran away to bring her broom. She returned with eyes shining with anticipation, and began flourishing her broom over the carpet here and there in a very irregular way.

"Stop that," called out Mrs. Martin. "You can't sweep. You are raising a dust and making me more work. You are a regular little nuisance. I wish you hadn't been given a broom. There'll be no peace with you now."

"But I want to help you sweep," persisted the child.

"Well, you can't help, so run away and stop your crying. I'll warrant that when you are old enough to help you won't be so anxious. Clear out, now. Come, get out from under my feet."

The child obeyed, but the brightness had gone from her face, the light from her eyes.

Three hours later, Mrs. Martin began setting the table for dinner, and again little Agnes pleaded to be allowed to help.

"You can't help," said her mother, "you'd drop and break things. I wish you'd keep out of my way. I'm in a hurry. Go to your play and don't bother me."

Three years later. Baking day. Agnes, now seven years old, wants to help, but, as usual, Mrs. Martin refuses her aid. "You can't help," she repeats, as before. "You are only in the way. I'd rather you'd clear out entirely."

"Susie Morrrows's mamma lets her cut out cookies, and help get the dinner, and do lots of things," pleads Agnes.

"Well, I can't help that. I can't be bothered."

"It isn't bother, it's help," persists little Agnes.

"Yes; you can call it help, but I'd rather do it alone than show you how. Clear out now. When you are older you can help; only you won't want to then. Children never want to do things they can do, but are always teasing to do what they can't do."

Seven years later. Saturday morning. Mrs. Martin has an excruciating headache, and comes into the sitting-room to rest for a few moments. Here she finds Agnes, a large girl of fourteen, busy reading a book.

"Oh, here you are," exclaimed Mrs. Martin, irritably. "Reading as usual. I warrant you haven't done a single stroke of work this morning. Have you taken care of your room?"

Agnes gives an articulate reply and continues reading.

"Go and sweep your room, and put it in order," commands Mrs. Martin. "Then I want you to help get dinner. There's to be company, you know."

"I don't know how to get dinner," Agnes says, sullenly, as she leaves the room.

"That's always the way," sighs Mrs. Martin. "I've slaved to save her, thinking she'd be grateful, but she isn't one bit. She doesn't care that I'm sick and tired out. She'd never offer to do a thing for me. Solomon was right, it is sharper than a serpent's tooth to have a thankless child."

Agnes paid no attention to the suggestion that she was to get dinner, so Mrs. Martin got it herself, but at its close, told her daughter to wash the dishes. "I hate dish-washing," pouted Agnes. "I hate housework. I never mean to do one bit of it when I'm grown up."

"It's very little of it you've done yet," said Mrs. Martin. "I thought if I saved you when you were young, you'd repay me by saving me as you grew up, but I was mistaken."

"I'll tell you where you made your mistake," said the girl. "You wouldn't let me work when I wanted to, and now I don't know how, and don't love work, and I'm not to blame."

"Oh, of course you'll blame me. I might have known that would be the thanks I'd get," and Mrs. Martin sobbed in self-pity, while her daughter sullenly washed the dishes, feeling sorry only for herself.

No. II.

Among her Christmas gifts Lois Barrows had received a broom and dustpan. She saw with great delight her mother's preparations for the next sweeping day, and ran to find her tiny implements.

"I can help sweep, mamma," she exclaimed, joyfully, as she began flinging her broom vigorously over the carpet.

"Yes, dear," replied Mrs. Barrows, who believed her child to be of more importance than things. "You can help if you will do just what mamma wants you to. First, you can take these books and put them on the sofa as mamma dusts them."

With shining eyes and a feeling of great importance at being mamma's helper, little Lois carried the books. "What next, mamma?" she asked.

"Now you can help me put the sheets over the furniture."

"Why do you do that?" queried the child, as she straightened out the sheet over the sofa.

"To keep the dust off," answered Mrs. Barrows. "Now, we'll open the windows, and then you can go and sweep the porch while I sweep here. Let us see which can sweep her room the best."

By this ruse she got the child out of the dust of her sweeping, but did not deprive her of the privilege of helping. Occasionally she would go to the door to oversee the sweeping of the porch and to make encouraging suggestions.

"Can I help dust, mamma?" asked Lois.

"Yes, dear; here is a cloth, and this is the way to dust a chair. You see, it will help mamma a great deal if you do it well, for then she won't have to stoop so much."

The child was really anxious to do her work right, and soon learned to see the dust and remove it, to shake her dust-cloth out of doors, as mamma did, and surveyed her finished work with great pride. Her eyes glowed under her mother's just commendation.

"I'm your little helper, ain't I, mamma?"

"Indeed you are and always will be." Three hours later. "Can I set the table?" asked little Lois.

"You can help. Go to the other end of the table and pull the cloth straight as I throw it to you. Now you can put on the knives, forks, spoons and napkins."

"And dishes, too, mamma?"

"Not quite yet, dearie. We'll have to save some work for you to learn when you are older. It will not be long until you can set the table all by yourself."

"Goody!" said the child. Three years later. Baking day.

"Can I help?" asked little Lois. "Oh, yes, dear, of course you can. I'd hardly know how to do without you. You know how to do so many things now. You may beat these eggs. Then you can bring up some apples, and chop them after I have peeled them."

"What next? Can I cut out the cookies?"

"Certainly."

"And ornament the pies?"

"To be sure. We wouldn't know our pies if you did not ornament them. Then you can wash the potatoes for dinner, fill the kettle with water, wash the rice, fill the salt cellars and set the table."

While Lois was busy with these tasks, her tongue was clattering merrily, and Mrs. Barrows learned much of the school life of her daughter, much about her companionship, much concerning her thoughts and feelings, and felt that the most important results of the morning were not the bread, pie and cake, or the well-cooked dinner, but the sympathy, confidence and companionship that grew out of the hours spent with her child.

Seven years later. Saturday morning. Mrs. Barrows and Lois have been busy working together, and now sit down for a moment's rest. "You look tired, mother," says Lois, lovingly.

"I've had a headache all the morning," replies Mrs. Barrows. "Then you're not going to do another bit of work. You just lie here till dinner is ready."

"But you know, dear, papa is going to bring home company to dinner."

"Well, what of that?" laughs the girl. "I think it's a pity if I can't get dinner, such an experienced housekeeper as I am."

"Oh, I know you are competent," says Mrs. Barrows, smiling.

"Then let me prove it. Surely I ought to 'do you proud.' You have been such a faithful, patient teacher, I must have been an awful nuisance when I was little, always wanting to help. Didn't you often want to drive me away?"

Mrs. Barrows gently smoothed the girl's hair from her forehead, as she lovingly replied:

"Your help was not always the most efficient, but I never wanted to drive you away. I was too anxious to keep you close to me, and now I am having my reward."

Lois kissed her mother tenderly. "I'm so glad you were patient with me, for now I know how to work, and I love it. Anger Martin is to be married next month, and she says she hates work and means never to do any. I wonder what kind of a house she'll have. She thinks her mother will live with her, and work for her, as she always has done. But, mother, I'd be ashamed to do that. It seems to me the least a girl can do is to take the burden of her own life when she is married. I'd like to have you always with me, but I mean to work for you, to pay for what you've done for me." —[American Mother.]

Camera Competition.

Now that the holiday season is here, cameras and kodaks are greatly in evidence, and as our previous competitions in photography have proved so successful, we have decided to announce another, open to all amateurs. Our range of subjects will be wide, so that competitors may pursue the special line for which they are particularly adapted.

Our offer is:

1st Prize	\$5.00
2nd Prize	4.00
3rd Prize	3.00
4th Prize	2.00

for the best photographs of country homes, home or garden groups, interior views, field scenes, fruits or flowers, choice bits of scenery now at their best, children, animals, and so on.

RULES GUIDING COMPETITORS.

All photographs must be mounted, and preference will be given to those not less than 4 x 5 inches in size.

They must be clear and distinct. In making the awards, consideration will be taken of the artistic taste displayed in the choice of subjects.

They must reach the office of the "Farmer's Advocate and Home Magazine," London, Ont., not later than October 1st, 1904.

The name of competitor, with P. O. address, must be marked on the back of each photo, as well as the name and location of the view photographed.

Any competitor may send in more than one photograph, but can only obtain one prize.

All photographs competing shall become the property of the "Farmer's Advocate."

No photographs from which any engraving has been made is eligible for competition.

A Cheerful View.

Two men who had been sitting together in the seat near the door of a railway car became engaged in an animated controversy, and their loud voices attracted the attention of all the other passengers. Suddenly one of them arose and said:

"Ladies and gentlemen: I appeal to you to decide a disputed point. My friend here insists that not more than three people out of every five believe they have souls. I take a more cheerful view of humanity than that. Will all of you who believe you have souls raise your right hands?"

Ever hand in the car went up. "Thank you," he said with a smile. "Keep them up just a minute. Now will all of you who believe in a hereafter please raise your left hand also?"

Every hand in the car went up. "Thank you," he said. "Now while all of you have your hands raised," he continued, drawing a pair of revolvers and leveling them, "my friend here will go down the aisle and relieve you of whatever valuable articles you may have. Lively, now, Jim."

Domestic Economy.

Opening canned fruit an hour or two before using, that it may regain the excluded oxygen, improves the flavor. It should be turned at once into an earthen dish.

EGG SANDWICHES.

Chop hard-boiled eggs until they form a paste, add a little chopped parsley as a flavoring, and mix the whole with a rich mayonnaise dressing and spread daintily on fanciful shapes of white bread.

CHEESE SALAD.

Hard boil six eggs, peel and slice; line a dish with lettuce leaves, cover the leaves with egg and sprinkle well with grated cheese; upon the cheese pour a few spoonfuls of mayonnaise dressing; continue the layers until all is gone, then cover the top with cheese.

CHERRY CAKE.

This is a French recipe and very delicious. Soak half a pound of stale bread in one and a half pints of boiling milk, and cover up for half an hour. Then stir into the soaked bread the yolks of six eggs, beaten in one by one, half a pound of fresh butter, a half pound of white sugar, and a few pounded almonds; to this add three pounds of cherries, stoned, and the whites of six eggs whipped to a froth. Butter a shallow baking tin, fill it with the mixture, put it into a moderate oven, bake for one hour and a half and turn it out of the tin while still hot; then sprinkle with sifted sugar and cinnamon.

LEMON BARLEY WATER.

To make lemon barley water, take two tablespoonfuls of pearl barley, a quarter of a pound of lump sugar, rather more than two quarts of boiling water, and the peel of a fresh lemon. It should stand covered all night, and be strained the next morning.

RASPBERRY DUMPLINGS.

Add to two cupfuls of sour milk one teaspoonful of soda—the latter dissolved in a little hot water—half a cupful of lard, and flour enough to make a dough somewhat stiffer than for biscuit. Roll out and cut with biscuit-cutter or large teacup, placing a large spoonful of well-sugared berries upon each round. Turn into "half moons" with the edges firmly pinched together. Arrange on flat pan or baking sheet and bake a light brown. To be eaten hot or cold with cream or hard sauce. A good baking powder crust may be substituted for the above for the dumplings.

ON CANNING RASPBERRIES.

(Contributed by Mrs. A. S.)

As soon as possible after picking the raspberries, I put them into glass cans, without breaking them any more than I can possibly help; then, when I get a fire on, I make a thin syrup (suit your own taste as to whether you make them rich or not), and pour it over the berries while boiling, first placing the can in a little hot water to prevent breaking. I put the rubber on and screw the top on tight, place in a crock or butter tub previously neatened with hot water, and cover with boiling water. Cover crock also, and let them stand until cool; tighten top and put away.

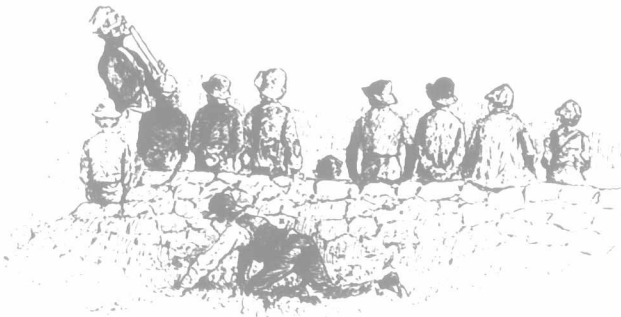
MRS. A. S.

Mr. Bowles' Experiment.

By Paul Blake, Author of "School and the World," etc. The following illustrated story appeared some years ago in "The Boys' Own," and will doubtless be interesting to all lovers of the newest educational hobby—nature study:



I
The little room was stuffy, the little room was hot; There was nothing disagreeable that the little room was not; The boys were more than half asleep, the master gave a nod, Then roused himself to rattle up a youngster with his rod.



II
"Now, boys," he said, "just follow me; for once I think we'll yield To summer's overwhelming power, and seek the pleasant field; There nature spreads her treasures; open wide your sleepy eyes And look on nature's wonders; learn her secrets and grow wise."



III
The boys made no objection, so they trooped out in a mass, They perched themselves along a wall or settled on the grass, Whilst Mr. Bowles, the master, showed in low, impressive tones The lessons to be gathered from the leaves or mossy stones.



IV
The boys thought this grew gloomy; they were yearning to be free, For lessons and the meadow didn't seem to quite agree, So Simpson Junior watched his chance and slipped away unseen; The gentle zephyrs wandered o'er the spot where he had been.



V.

Then whilst the learned dominie went softly mauldering on, The boys stole slyly out of sight till five of them had gone; But still the master lectured on with scientific zeal, And showed the way the ruminants digest their grassy meal.



VI.
But Short and Tommy Jones and Dick were stripping for a swim; Smith thought that Bowles could get along without more aid from him; And Robinson was hunting for some non-existent eggs, And damaging his nasal tube and barking both his legs.



VII.
Yet Mr. Bowles dilated on the progress of the sap Within the switch he carried, and he laid it on his lap, And produced a pocket microscope and carefully explained The extraordinary methods by which nature's ends are gained.



VIII.
Next he lifted up his spectacles to ask his little class Some questions on the method of the growth of meadow grass, When, lo! the sight that met his eyes abruptly made him stop— No boy was left but Jenkins, who was sleeping like a top!



IX.
So Mr. Bowles determined his new system wouldn't do If boys preferred to climb a tree to learning how it grew. He thrashed them all next morning, and they had no further chance Of leading learned Mr. Bowles another such a dance.

"Did that doctor succeed in curing your husband of insomnia?" "Yes, but the doctor's bill was so excessive that my husband cannot sleep now for worrying over how he is to pay it."

Travelling Notes: Pompeii.

Had Pompeii been overrun with lava, as was the case with Herculaneum, the Government would not have been able to excavate as thoroughly as it has. The strange part, to me, is that there was such a lack of interest shown in it for so many centuries, for it is only since the 18th or 19th century that excavation has been undertaken in real earnest, though as early as the 17th, if not much earlier, it was known that a town lay buried there, and an aqueduct supplying Naples with water passed under the ruins. We saw where the present excavations are still being carried out—probably yet great treasures remain to be brought to light. The private houses in their style recalled to me the houses in Seville in Spain, with their central courtyard or peristyle, as it is called, with all the rooms opening from it. In the courtyards, little fountains standing in pretty gardens, and marble sculptures are found. The people of those days had a system of laying on water to supply their gardens. The original leaden pipes are to be seen in many places. The frescoes were very primitive in most cases, but the dado of cupids on the Pompeian red of the house of Vattii were beautifully executed, and artists were there with their brushes making copies. Bathing played a great part in the life of these early Italians, as Bulwer-Lytton tells in his romance, "The Last Days of Pompeii." Most elaborate marble baths, with little dressing-rooms attached, and shelves in which to put one's clothes, are quite a feature of Pompeii. Most interesting, too, were the wine shops, with their large earthenware jars and big cellars; the curious old stone mills for grinding corn, and the fine mosaics, especially those on the threshold bearing the word, "Have," meaning welcome. In the Museum of Pompeii are kept the casts of the human bodies that were found imbedded in the lava, just as they were overtaken by their awful fate, as also one of a poor dog. The attitudes have been most wonderfully preserved. Of course, we could not see all—Pompeii is too big to see in one visit—but what we were enabled to see has left an indelible impression upon our minds. Our third, and last, day at Naples we spent looking at the shops and admiring the lovely pink corals, etc., in which the place is very rich—rich, too, are the prices, though we made a few purchases. The following morning we were up early, to be on time for our departing train, and as fate would have it, the electric train went wrong, so we were forced to take another car, but despite the Jehu's reckless driving we reached the station safely, and made a most comfortable return to Rome, having spent three of the most interesting of all our days, so far, in Italy.

ELEANOR.

Carry Sunshine.

There are people in the world who seem to carry sunshine with them, and to radiate it on all around them. It is a pleasant thing to meet them when one is in trouble or perplexity. Their cheerful smiles go right to the heart, their hopeful words take the sting out of disaster, and the burden which weighed upon the spirit before they brought their reassuring counsel to bear upon its cause, is lightened by their earnest sympathy. Blessed is the man who can call one of these comforters his friend; thrice blessed he who has one such for a wife. How she beautifies his home! How the light of her brave love shines against the clouds of misfortune when they darken around him, spanning them as with promise bows, and prefiguring a happier future behind the gloom. No rightly-constructed man who has such a helpmate can ever despair.

How to Write a Pleasing Letter.

In the first place, the paper and ink should be of the best possible quality, more especially if the hand-writing leaves something to be desired. Thick cream-laid or white paper is to be recommended for ordinary use. It always looks in good taste, which cannot be said of those glaring eccentricities in vivid-colored paper affected by so many people nowadays.

The date of the month and year ought never to be omitted, even when writing a trivial note to an intimate friend. This may seem an insignificant detail, but much inconvenience is often caused by its being left out. It is not sufficient to put the day of the week alone.

The civility of enclosing a stamped addressed envelope for the reply must always be observed when writing to a stranger on a matter of business.

All the words must be written in full. Abbreviations of any kind evince a thoughtless haste, as well as a lamentable lack of politeness on the writer's part towards the recipient of such abridged epistles.

The answer to a letter which requires a definite response should be sent directly after its receipt—by return post, if possible. There is nothing to be gained by delay in the matter, unless the question at issue is one which demands much anxious thought and deliberation.

In these days of fabulously cheap paper and penny postage, the crossing of writing is an unpardonable act. Correspondents who are guilty of it deserve to have their letters returned on their hands unread.

A letter, when written, must be evenly folded in such a manner that the signature comes inside, and placed in the envelope with the fold inserted first. By this means the first line of the communication meets the reader's eye directly it is withdrawn from its enclosure.

The proper place for the stamp is at the top right-hand corner of the envelope, at equal distance from the edges. Nothing gives a more slovenly appearance to a perhaps otherwise perfectly-appointed missive, than a stamp carelessly stuck on, either askew or in any of those peculiar positions supposed to convey some hidden meaning to the initiated.

Care must be taken to write the direction correctly and very distinctly. Postmen are not skilled hieroglyphists. It is often impossible for them to decipher the addresses on some of the letters entrusted to them, thus causing delay in the delivery.

If the least doubt be felt as to the correct spelling of a word, consult the dictionary, which ought to have a post of honor on every writing-table. Nobody's spelling is above suspicion, and one ill-spelt word will cast a slur over a letter.

Finally, the scattered members of every family should make any sacrifice in order to keep up a brisk, regular correspondence with one another.—Exchange.

It is Cardinal Manning who relates this incident as having happened to himself. One night I was returning to my residence in Westminster when I met a poor man carrying a basket and smoking a pipe. I thought over this: He who smokes gets thirsty; he who is thirsty desires to drink; he who drinks too much gets drunk; he who gets drunk endangers his soul. This man is in danger of mortal sin. Let us save him. I affectionately addressed him:

"Are you a Catholic?"
 "I am, thanks be to God."
 "Where are you from?"
 "From Cork, your reverence."
 "Are you a member of the Total Abstinence Society?"
 "No, your reverence."
 "Now," said I, "that is very wrong. Look at me; I am a member."
 "Faith, may be your reverence has need of it."
 I shook hands with him and left.



A Servant's Place.

"He deigned forget His own Eternal Being. . . .
 He loved and served and toiled, the end foreseeing—
 Say, were such lot too low for such as I?"

Most people want to get on in the world; they would like to win a high place, securing for themselves the respect and love of their fellows. But sometimes the road to honor is missed because a mistake is made in the very beginning.

Long ago, there was a strife among certain disciples as to which of them should be accounted the greatest. The Master explained that the road to greatness was through the valley of service: "He that is greatest among you shall be your servant." That was the way He rose to His high position, for He—the Son of God—came not to be ministered unto, but to minister. We recognize this fact, by calling one who is over a congregation, its "minister," or "servant." Then the "Prime Minister" is in a very high position, although his very name declares him to be the "chief servant" of the whole country. Our late dear Queen was honored by the whole world because she devoted her life to the service of her people. One who lives only to have other people waiting on him will never win either honor or respect for himself.

A servant's position then is not only important, but also very honorable, and no one need feel ashamed of it since our Master Himself took on Him the form of a servant and came to minister to the wants of all men. He is still always ready to give us what we need, or, in other words, to "serve" us. When the King of kings comes again in His glorious majesty, He will still continue to serve those who have proved themselves faithful servants: "Blessed are those servants whom the Lord, when He cometh, shall find watching: verily I say unto you, that He shall gird Himself, and make them to sit down to meat, and will come forth and serve them."

God always honors those who honor Him, and the world loves to heap its honors on the men and women who have proved their greatness by years of willing service, carrying out St. Paul's declaration—"ourselves your servants for Jesus' sake."

The first statue ever erected in England in memory of a woman who was not a queen, stands in the town of Walsall—the statue of "Sister Dora." She won her high position by a life of devoted service. In 1864, she went to Walsall, when most people, who could, fled from the place, for smallpox was raging there. She nursed the sick, and sometimes buried the dead with her own hands, because no man dared do it. At first the rough, drunken men treated her with scorn, and even with open violence, hurling after her stones and vile language; but she worked on patiently and cheerfully, even joking with her patients, and treating those who had treated her cruelly with a kindness which soon won all hearts. Once, when the hospital was filled with smallpox patients, she shut the doors, preserving the strictest quarantine; and, with only one man to help her, did everything that was needed. She was servant to all the rough patients—nurse, cook and washerwoman. Was it any wonder that, when she passed into higher service, one of the eighteen laborers who carried their dearest friend to her grave, said: "We want her cut in marble, with her cap an' goon and blessed face. It's not that we'll forget her;

no danger o' that, but we want her to be there, so that when strangers come and see her standing up there, they'll say: 'Who's that?' An' we'll say: 'That's our Sister Dora.'"

The statue was not erected by the rich, but by the hard-earned money gladly given by the poor people she had served so willingly. The name of "Sister Dora" will never be forgotten; for the world, in spite of its worldliness, delights to honor those who deserve to be honored—although the honors are sometimes late in coming. Truest happiness, as well as honor, lies in the path of willing service "for Jesus' sake."

"Thy love
 Shall chant itself in its own beatitudes,
 After its own life-working. A child's kiss
 Set on thy sighing lips, shall make thee glad;
 A poor man served by thee, shall make thee rich;
 A sick man helped by thee, shall make thee strong;
 Thou shalt be served thyself by every sense
 Of service which thou renderest."

"But," you may say, "I can't copy Sister Dora. I have to stay at home and fritter away my time on little humdrum duties that will never be of much importance in the world."

Do you know, it is probably a very good thing for us that we have only opportunities of serving the world in small, insignificant ways. It isn't everyone who can do great things and not get conceited, and how sad it would be if all the world praised us, and yet we failed to win the only commendation that can really satisfy anyone—the Master's "Well done, good and faithful servant." We all have a chance to serve both God and man many times a day; the great question is: are we working only because we have to—yielding a slave's service—or are we "with good-will doing service, as to the Lord, and not to men." If we wish to make our work a grand and noble service, then we must do it heartily, "not with eye-service, as men-pleasers; but as the servants of Christ, doing the will of God from the heart."

Lastly, let us never forget the wonderful truth that every little service we may do for others is accepted by our Master as a gift to himself. Perhaps the greatest incentive to one who has any love for Him is the golden text, which I will give you as:

A THOUGHT FOR THE COMING WEEK—

"Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me.—S. Matt. xxv: 40.

"Be strong, all ye people of the land, saith the Lord, and work; for I am with you, saith the Lord of hosts."—Haggai ii: 4.

He is with us! We are not working alone, the daily tasks are not wasted, even though they may have to be done all over again to-morrow. No smallest act of service is forgotten or overlooked. We work always under the Master's eye. Could any day be commonplace or dull, if only we always remembered the living reality of His presence?

"Yet the world is Thy field, Thy garden,
 On earth art Thou still at home.
 When Thou bendest hither Thy hallowing eye,
 My narrow work-room seems vast and high,

It's dingy ceiling a rainbow-dome—
 Stand ever thus at my wide swung door,
 And toil will be toil no more."

HOPE.

A Reminiscence.

Written for the "Farmer's Advocate."

Ariel gave me a pen of gold,
 One chosen word to write:
 Child-wise I wait, I muse, I choose,
 Why, nothing suits me quite!
 Here in the meadows sweet to roam,
 In blisses manifold,
 I have the word, the world thinks fair,
 It hath obtained in every sphere—
 'Tis "Home," sweet "Home."

No, stay my pen of gold!
 All are not happy who are old,
 Their deeds conveyed to a will.
 Others do have and hold,
 I want a dear word still.

"Mother!"
 Seek I another?
 I am a mother, I should know,
 I have forgot my sucking child;
 Mother in Israel, I have let them go,
 A-starving for that bread;
 Their red, red 'brodered robes defiled,
 Hard things the neighbors said,
 I cannot write it so.

"Love" is a jewelled word;
 Say, will "love" do?
 Love is the climax, new and old,
 Of all things good and true.
 Shall I write "love" in golden-rod,
 With asters star it through?
 Above a lyre of golden strings,
 And on a field of blue?

Love oft is but a silvern sound,
 What can it signify?
 And if a gem, a flaw is found,
 And is it love? or is this love
 The amber or the fly?
 And if 'tis wine's delicious zest,
 Too soon the fount runs dry;
 Some a specific love have found,
 Then, have not I?

Sweet "Heaven," it hath a holy sound,
 Be it mine Italy!
 "Come, Sara, give me a sweet word,
 The dearest that can be."
 "Write 'JESUS,' mother, 'JESUS,'
 For He loves you and me."

MRS. A. E. HOLT.

Some Things a Mother of Boys Should Not Do.

She should not forget that if she treats her boy as a gentleman she will do much towards making him one.

She should not treat her boy to perpetual frowns, scoldings and fault-findings. "Sugar attracts more flies than vinegar." Love wins her boy to a noble manhood.

She should never be so busy or hard pressed for time that she cannot listen to him. If he lives to be a man he will all too soon leave her. She should make the best of him while she has him.

She should not deny her boy any opportunity to enjoy outdoor exercise or sports, and she should not forget to train him with a proper regard for his personal appearance.

She should never allow him to form such habits as coming to table in his shirt sleeves, neglecting his nails or teeth, or carrying soiled handkerchiefs.

She should never nag him, or forget that he is a creature of reason, not an animal which requires to be driven.

She should not try to break her boy's will, but be thankful that he is manly enough to have a mind of his own, and devote herself to training it to the noblest uses.

She should not fail to instil in him a distaste for all that is vulgar.

He had been shooting "late" all day, hitting the tail feathers of the pheasants with the outer edge of the "spread," but without doing any further damage.

On his lamenting this fact, the keeper remarked, consolingly, "Well, sir, if the birds was only to take to flyin' tail foremost, you'd 'it every one of 'em in the 'ead."

He was the same man who had cheered the sportsman lamenting that he "couldn't shoot at all to-day" with the remark, "You shoots well enough, squire, but you don't 'it nothink."

With the Flowers

The Geranium.

With foliage at all times attractive, and flowers infinite in variety of color and marking, possessing at the same time the advantage of being especially easy of culture, and exceptionally free from insect pests or fungous diseases, little wonder is it that the geranium should, more than any other plant, recommend itself to the amateur floriculturist. However, as everyone knows, there are geraniums and geraniums. Here one sees tall, straggling plants, blessed with but few blossoms; there compact, bushy ones, laden with clusters of scarlet, or white or pink, an ornament to any table, a brightener to any room; all of which goes to show that, although the geranium will live under any treatment, it will smile only under the best.

Some people make the mistake of expecting the geranium to bloom all the year round, and so meet with disappointment. The best plan is to have two sets, one for summer and the other for winter blooming. For the summer set cuttings may be rooted early in spring—March is not too early—and for the winter set any time from June till August. The cuttings are very easily managed. The stubby side branches make the best ones, and may be started simply in the pot beside the parent plant, or in shallow boxes of sand, which, for geraniums, must not be kept too moist. When rooted, move the slips to small pots, and continue to shift from pot to pot, according as the roots reach the outside, until, at the last moving, the plants occupy pots six inches in diameter. Larger ones should never be used for geraniums, as too much root room will cause the plants to run to foliage and give but little bloom.

If you have old plants set out in the garden this summer, and wish to have them bloom again in the garden next year, simply take them up in the fall, cut them back sharply, and stow them away in the cellar for the winter, giving them very little water, so that they may obtain a complete rest. Or, if you choose, you may take the plants out of the pots and hang them up somewhere until spring. . . . If, on the contrary, you wish to have your old plants bloom during the winter, do not let any flowers come on them during the summer. Pinch off every bud resolutely, according as it appears; then, early in the fall, take the plants up and re-pot, so as to have them growing well in the house before the fires are started; otherwise the leaves will be likely to drop off. Let them flower all they will during the winter, and when spring comes cut them back, set them out in the garden as before, and repeat the process.

Sandy soil which is not too rich is best for geraniums, as overrich soil has a tendency to produce foliage rather than flowers. Watering should be done only when the soil appears quite dry, and, after the buds form, weak liquid manure may be given once a week. Frequent spraying to keep the leaves free from dust will be found very beneficial.

Don't despise the geranium as a "common" plant. If you have only been used to a few old-fashioned varieties, get a few of the newer kinds: Madame Bruant, for example, with its white, carmine-striped petals; the blotched Renome Lyonnaise; the scarlet-and-white Jean Sicily, or any of the other "choice" kinds kept by all florists. Give them plenty of fresh air and sunshine, and a little especial care, and then, and not until then, say whether you do or do not consider that the geranium is well worthy of being given a place in every home and prized all the home because of those qualities which have made it indeed the "Flower for the Million."



Grandma's House.

Strap up the trunks, the satchels lock;
The train goes north at seven o'clock,
And then we're off—a jolly flock—
For grandma's house in the country.

There's milk to skim and cream to churn,
There's hay to cut and rake and turn,
And brown our hands and faces burn
At grandma's house in the country.

There's water bubbling clear and cool,
And speckled trout in the shady pool,
And not one thought of books or school,
At grandma's house in the country.

And when it rains and skies are gray,
There's a big old attic made for play;
There are cookies, crisp with caraway,
At grandma's house in the country.

Each day is just brimful of joys;
When grandpa says, "Tut, tut, less
noise!"
Why, grandma smiles, "Boys will be
boys."
At grandma's house in the country.

If you will go just once with me,
I'm sure you'll every one agree
'Tis the only place in the world to be—
At grandma's house in the country.
—Alice Allen.

A Lost Scolding.

One morning Benjy happened to reach the schoolhouse very early. The place was as still as a meeting house in the middle of the week. Benjy was not afraid exactly, but he felt rather lonesome and timid; for the little white schoolhouse was hidden from the village by a grove. To keep up his spirits, Benjy began

bounded back. This was much livelier, and he had entirely forgotten to feel lonesome, when the ball suddenly disappeared. There was a soft little thud inside the schoolroom, then a crash that in the quiet place sounded to Benjy as loud as a peel of thunder. One of the windows was down from the top and the little red ball had found its way through the narrow opening.

Benjy's first fear was that he had lost his ball, and then that some damage had been done in the schoolroom. He stood on tiptoe, and peeped through the window. On the teacher's desk was a vase lying on its side. The flowers that had been in it were scattered about, and the water was trickling in among the neatly-piled books. Benjy was really frightened now. He tried the door, but it was fastened; and he was too small a boy to climb through a window. He thought of running home to get out of sight of the mischief he had done; for how could he face the scolding that would come? But no one had seen the ball thrown. Perhaps Miss Berry would never find out who it was. Then the boy shut his hands together into two tight little fists, and ran down the road toward the village as fast as his feet could carry him. He met two or three boys going to school, but he did not stop when they shouted.

Miss Berry was shutting the gate behind her when a breathless little boy almost tumbled against her, crying: "Oh teacher! I spilled water all over your desk. Please hurry, and perhaps the books won't be spoiled."

When she learned what had happened she hurried on to rescue the books, leaving Benjy to follow more slowly. She had not scolded. "But she will when she has seen the books and has time to tend to me," he thought, ruefully.

As he entered the schoolroom there was a group about the desk, watching Miss Berry wiping off her books and putting them on a window-sill to dry in the sunshine.

"I know who did it," a little girl called out, suddenly, diving into a corner where she had caught sight of the bright ball. "This is Benjy Adams' ball, and he threw it in the window and tipped the vase over!"

She was triumphant over her discovery; but Miss Berry smiled at Benjy over the heads of her other scholars and said: "Yes, I know who did it—it was an honorable and truthful little boy who came straight to me with the story of his accident. There has been no harm done, Benjy. Most of the water dripped to the floor, and the few books that are wet will dry and be as good as ever."

And that was all the scolding Benjy received.—[M. B. Beck, in Presbyterian Banner.

"Willie," said his mother, "I wish you would run across the street and see how old Mrs. Brown is this morning." A few minutes later Willie returned and reported: "Mrs. Brown says it's none of your business how old she is."



The "Flower for the Million"

so play ball by himself. The ball he pulled from his pocket was a great wonder to all the school-children. It was of rubber, almost as light as a soap-bubble, and was a beautiful bright red in color. Such a ball had never been seen among the Sharon boys until this one came to Benjy from a cousin in the city.

He began by tossing and catching it, then he made it bound on the hard, smooth ground; but it was rather stupid to be playing alone. Then he tried to make the schoolhouse help him in his fun; and he threw the ball against the wall and up on the roof, catching it as it

The Best Way.

"Cos I's a tell-tale I must stay
In this old corner till I say
I'm sorry that I touched the jam,
I just won't say it, but I am!
Now, if I'm sorry, don't you s'pose
The little birdie surely knows?
Why can't it tell a thing like that,
And do some good, the little tat?"

"See how my blouse is stained! Oh, dear,
I wish I could go 'way from here!
There's no use wriggling—mamma's word
Is always law. I wish that bird
Would come along; I can't stand this.
'I sorry, mamma!' Well that kiss
Was worth it. Now if birdie had
Told that time would I feel as glad?"
—Elizabeth Barrett Browning.

"Our Lady of the Snows."

By Rudyard Kipling.

A nation spoke to a nation,
A Queen sent word to a Throne,
"Daughter am I in my mother's house,
But mistress in my own.
The gates are mine to open,
As the gates are mine to close,
And I set my house in order,"
Said our Lady of the Snows.

"Neither with laughter or weeping,
Fear or the child's amaze,
Soberly under the White Man's law,
My white men go their ways.
Not for the Gentiles' clamor,
Insult or threat or blows—
Bow we the knee to Baal,"
Said our Lady of the Snows.

"My speech is clean and single,
I talk of common things—
Words of the wharf and the market-
place
And the ware the merchant brings.
Favor to those I favor,
But a stumbling-block to my foes,
Many 'there be that hate us,"
Said our Lady of the Snows.

"I called my chiefs to council
In the din of a troubled year:
For the sake of a sign ye would not see
And a word ye would not hear.
This is our message and answer,
This is the path we chose;
For we be also a people,"
Said our Lady of the Snows.

"Carry the word to my sisters,
To the Queens of the East and the
South.

I have proven faith in the heritage
By more than the word of mouth.
They that are wise may follow
Ere the world's war-trumpet blows,
But I—I am first in the battle,"
Said our Lady of the Snows.

"A nation spoke to a nation
A Queen sent word to a Throne,
Daughter am I in my mother's house,
But mistress in my own.
The gates are mine to open
As the gates are mine to close,
And I abide by my mother's house,"
Said our Lady of the Snows.

Humorous.

A LESSON IN PUNCTUATION.

A high-school girl said to her father the other night:
"Daddy, I've got a sentence here I'd like you to punctuate. You know something about punctuation, don't you?"
"A little," said her cautious parent, as he took the slip of paper she handed him.
This is what he read:
"A five-dollar bill flew around the corner."
He studied it carefully.
"Well," he finally said, "I'd simply put a period after it, like this."
"I wouldn't," said the high-school girl; "I'd make a dash after it."

Huntswill: "It seems that in all railroad accidents the first and last cars are always the ones that are injured." O'Rourke: "Shure, an' I wonder why they don't leave thim two cars off the thrain entotirely."

"There isn't very much to eat," said the Eskimo hostess, as she handed a candle to each guest, "just light refreshments."

Wakefulness in Children.

Some Causes of the Trouble and Its Proper Treatment.

We cannot, or surely should not, give children medicine to make them sleep. Yet sleep is necessary to health and life as food itself. Young children grow most rapidly while asleep, and it is then, also, that the waste of the body is repaired. When possible, children should sleep in separate beds in a room by themselves, where plenty of pure air and sunshine are sure to enter.

There is a simple but excellent remedy for wakefulness, which is well worth trying, since it can do no possible harm, and usually much benefit will be derived from it. Having tried everything to make a nervous child sleep, a physician recommended the following, which has worked wonders. Fill a large pitcher with very hot water, as hot as the child's skin can bear, and with a soft sponge dipped in the water, sponge off very slowly and gently down the entire length of the spine, beginning at the neck, and wetting the sponge each time, keeping the water as hot as may be borne. Continue this until the skin is red, or, as the doctor said, "until he howls." After this treatment, dry the spine gently, and put the child to bed warm.

A week or two of this treatment will usually effect a permanent cure; however, should signs of a wakeful night appear, repeat the use of the water, and in nearly every case a satisfactory result will follow.

One common cause of wakefulness in children is the habit of burning a light in the room at night. Plants and animals require some hours of darkness, how much more do the little children.

Telling stories at night is a fruitful cause of wakefulness. The stories tend to excite further the already too active minds of the little listeners, and sleep cannot come at once, however willing the little ones are to go to bed. If a story must be told (which comes from habit, not necessity), let it be an aimless, drowsy tale, with no striking features and nothing particularly worth remembering.

Teach a child to lie still on getting into bed. Try a good rubbing, warm feet and hands, a loving and not hurried, "good-night," and sleep should not fail to come to the little tired child. Scolding and hurrying do no good, but rather irritate the nerves, and produce that which you are seeking to avoid.

If, after trying faithfully these ways suggested of producing sleep, the child still continues to pass many wakeful hours, the mother should at once consult the family physician, as the matter is sufficiently serious to need his advice and attention.—(Grace Turner Adams, in Home Science Magazine.)

Humorous.

Aunt Julia brought Fred a present. Fred said, "Thank you." Aunt Julia answered, "Don't mention it!" So the next time his aunt brought him a present he did not say, "Thank you." After aunt went away mamma asked Fred why he did not thank her.

"Last time when I said 'Thank you' to aunt, she said, 'Don't mention it,' so this time I didn't mention it," Fred explained.

PRACTICE MAKES PERFECT.

General Howard was an invited guest at a dinner given by a boys' patriotic club. His attention was called to a little fellow who gave evidence of greatly enjoying the dinner. The Mail and Express gives the conversation that took place between them:

"You eat very well, my son," said the old soldier.

"Yes, sir."

"Now, if you love your flag as well as your dinner, you'll make a good patriot," General Howard's eyes beamed on the boy.

"Yes, sir; but I've been practising eating twelve years, and I ain't owned a gun but six months," was the laconic reply.

**PRIZE POEM.****First Summer Days.**

(By Miss A. L. McDiarmid, Ormond, Ont.)

From some unseen garden where lilacs are blooming
Faint whiffs of their perfume is borne on the breeze,
And all through the long weary days I am dreaming
Of a little low cottage 'mid blossoming trees.

A little white farmhouse with woodbine grown over,
Where the swallows, in spring, come to build 'neath the eaves,
The sunlight sifts down through the tall lilac branches,
And the wind whispers softly among the green leaves.

I can hear the faint murmur of bees in the orchard,
A drowsy refrain through the long summer noon;
And blithely the robins are trilling and calling,
And building their nests 'mid the pink apple bloom.

'Way down by the river, the bare-footed children
Are wading knee-deep in the lily-fringed stream;
The osel swings high on the branch of the willow,
And the minnows dart by with a glimmer and gleam.

I know in the cool fragrant glens of the woodland
There are dim shady nooks where the white lilies blow,
And frail little star-flowers and low trailing gold-thread
Are hiding in hollows where green mosses grow.

I'm tired of the hustle and glare of the city,
You people who like it are welcome to stay;
But from woodland and meadow I hear voices calling,
And I'm going back to the country to-day.

There is a slight mistake in the rhyme of the third stanza, as "bloom" does not really rhyme with "noon." The orchard picture is, however, so prettily described that we have permitted the stanza to remain.

PRIZE POEM.**June.**

(By Mrs. W. Buchanan, Ravenna.)

Some poets sing of early spring,
When snowdrifts melt away,
Of early flowers in shady bowers,
And later ones in May;
But I would sing of fuller joys,
When everything's in tune,
Of nature's charm when days are warm—
The leafy month of June.

Oh, June, it is a lovely month,
'Tis then the roses blow,
And summer flowers in sunny hours
Their fragrance sweet bestow;
And if the sun be rather hot
About the hour of noon,
How sweet the shade down in the glade
In the sweet month of June.

We're glad when spring returns again
With promises so sweet,
And when the autumn's bounteous store
Is lying at our feet;
But nature's now, like blushing bride,
Whose beauty fades too soon,
And she is drest all in her best
In the sweet month of June.

The following poem, although sent in long before the competition was announced, has been deemed well worthy of a place on the same page with our prize poems:

The Child's Plea.

(By A. B. C.)

"Come out, mamma, and play with me,"
My darling said one day;
"I can't, my dear, I'm busy now,
So run away and play."

"I've played alone the whole long day,
I guess a hundred hours;
Do put your work away, mamma,
And we will go for flowers."

"I know they're waiting for us there,
The red, the white, the blue,
They smell so sweet and look so bright—
Please come with me, now do."

"When will your work be done, mamma?"
He asked, and gently sighed,
"My work is never, never done,"
I wearily replied.

"I've beds to make, and floors to sweep,
And pies and cake to mix,
And many, many things to do
Ere the men come in at six."

He watched awhile with wondering eyes,
This lonely little child,
Then suddenly with joy looked up
Into my face and smiled.

"If you will leave the cakes and pies,
And come and play with me,
I'll eat just bread and milk, mamma,
This evening, for my tea."

"I'll never ask you for a cake
For one whole long, long week,
If you will come to gather flowers,
And walk beside the creek."

Could I resist the earnest gaze,
The tender pleading tone,
And bid him leave my side again
To wander forth alone?

I kissed the loving little face,
And quickly donned my hat;
We started out, a happy pair,
With loving laugh and chat.

As hand in hand we roamed the wood
And plucked the flowers gay,
My darling said with joyous laugh,
"Oh! What a happy day."

Oh, mothers, who may read this o'er,
E'en tho' you've work to do,
Play with your little darlings now—
They'll soon be gone from you.

"THREE-HOUR" BREAD.

Dear Dame Durden,—Having read some modes of making bread in the "Farmer's Advocate," I thought I would like to send you one, as it is the quickest I have heard of yet. I have used it over two years, and know it to be good. Have made bread after six o'clock at night, and had it baked by ten. It is a good recipe for bachelors, as they can make their bread after they come in from their day's work in the field.

Take two dippers mashed potatoes and one dipper potato water; when just warm add two cups flour, one cup sugar, one-half cup salt. Stir this together, then add five dippers warm water and one Royal yeast cake dissolved in half a cup warm water. Stir all together, cover, and set in warm place to rise for five hours, then stir, and the yeast is ready for use. Make warm what yeast you need and salt; have flour warm. Mix soft, set, rise one hour, put in pan, let rise one hour, and bake. Must be kept warm while rising. Must not make yeast hot.

A READER OF THE "F. A."**A DRAWING COMPETITION.**

Our Ingle Nook poets have had their "innings," hence it is only fair that our artists should now have their turn. Our next competition, therefore, will be an "original drawing" contest. Three prizes will be given to the three sending in the best original work in pen, pencil or Indian ink drawing. Water or oil-

paintings will not be considered in the contest. The choice of subject will be left entirely to the competitors, as will also the size of the drawing submitted. It should be understood, however, that a small one will have quite as good a chance as a large one, provided the conception be equally artistic and the work as well done. Lastly, all drawings must be mailed to us not later than August 20th. Kindly address them to DAME DURDEN, "Farmer's Advocate" office, London, Ont.

"A subscriber" writes: "Dear Dame Durden,—I have been very much interested and benefited by some of the questions and answers in your corner of the 'Farmer's Advocate.' Could you please inform me as to whether any of the Canadian correspondence colleges teach a course on story-writing, and if so, what college? If not, where would one get a course on that subject?"
Write to the Canadian Correspondence College (Ltd.), Toronto, Ont., for information on this point.

Mother's Boys.

Yes, I know there are stains on my carpet,
The traces of small, muddy boots;
And I see your fair tapestry glowing
All spotless with blossoms and fruits!

And I know that my walls are disfigured
With prints of small fingers and hands,
And that your own household whiteness
All fresh in its purity stands.

And I know that my parlor is littered
With many odd treasures and toys,
While your own is in daintiest order,
Unharmful by the presence of boys!

And I know that my room is invaded
Quite boldly all hours of the day,
While you sit in your own unmolested,
And dream the soft quiet away!

Yes, I know there are four little bedsides
Where I must stand watchful each night,
While you may go out in your carriage,
And flash in your dresses so bright!

Now, I think I'm a neat little woman,
I like my house orderly, too;
And I am fond of all dainty belongings,
Yet I would not change places with you!

No! keep your fair home with its order,
Its freedom from bother and noise!
And keep your own fanciful leisure,
But give me my four splendid boys!

Domestic Economy.

Avoid sleeping in an undergarment that has been worn during the day. If the change from woollen underwear to a cotton nightdress produces a chilly sensation, then provide one of soft, light flannel.

The biggest laundry in London has seven miles of drying lines, all under cover. Eighty thousand pieces can be dried at once in the space of half an hour.

To expel mosquitoes, take of gum camphor a piece about one-third the size of a hen's egg, and evaporate it by placing it in a tin vessel and holding it over a lamp, taking care that it does not ignite. The smoke will soon fill the room and expel the mosquitoes, and not one will be found in the room next morning, even though the windows should be left open at night.

BILIOUSNESS.

The juice of half a lemon squeezed into a glass of water, taken night and morning without sugar, is one of the simplest and best remedies for torpid liver and biliousness. Daily headaches, which medicine has failed to cure, will disappear, and the appetite will be considerably improved.

TO KEEP MOTHS OUT.

Benzine will drive away moths from upholstered furniture. Sprinkle with benzine; it will not spot or stain the most delicate silk, and the unpleasant odor soon passes away in the air. Where it is known that the moth miller has entered, burn a teaspoonful of gum camphor in closets where the clothes hang.

TO ENCOURAGE the saving of small sums, we receive deposits of one dollar and upwards and allow interest thereon at 3½ per cent. per annum, compounded half yearly. Interest is paid twice a year or added to the amount, as the depositor may prefer. Make your deposits by mail. Write for Booklet.

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The Amusement of Sick Children.

By Grace Turner Adams.

All families in which children are to be found come sooner or later to a time when sickness enters the home and keeps the active little bodies quiet for a season. Those who have had the care of a sick child through long, weary weeks of a slow recovery will understand why most mothers are glad of suggestions which may help to pass the hours pleasantly and profitably, and yet not tax the little invalid beyond his strength.

It is not always necessary to spend much time or money in preparing the material for amusing a sick child. A few old magazines, a pair of blunt-pointed scissors, paste or mucilage, a box of water-color paints, some brown paper and a pencil will accomplish wonders.

If you are so fortunate as to have an old seed-catalogue, it is easy to provide hours of delight. Take a large sheet of brown wrapping-paper, iron it smooth, and cut it into pieces about three by five inches. In the florists' seed catalogues can usually be found a picture of a large rose, which may easily be traced off by laying a piece of thin tissue-paper over the picture, and following with a soft-lead pencil the principal lines of the flower. This done, it is an easy matter to lay the tissue over one of the brown-paper pages, and after being sure that the penciled side is toward the paper, again trace over the lines previously made with the pencil. After removing the tissue, a dim outline is seen, which may be lined in a little heavier.

Now the picture is ready to paint. If you wish a red rose, color the blossoms and buds red, and by mixing blue and yellow you can get any shade of green for the stems and foliage. Paint very carefully, and take plenty of time. Other pages may be made from this same rose-pattern, coloring the roses pink or yellow. Daisies, lilies, pansies, asters and many other flowers may be found and used; the greater the variety and coloring, the prettier the book.

A source of never-failing delight to a number of small children is to have a story told, no matter how old it may be, and have each thing mentioned in the story pictured on paper. For example, take the sentence "A little girl one day started out with a basket of apples for her grandmother;" in this a little girl, a basket of fruit and a house will convey the ideas. Tell only one sentence at a time, and let the children hunt for pictures to illustrate. As soon as found and cut out, paste the pictures in a line on a long strip of brown paper. At the close of the story you will find that the children not only like to see the pictures come one after another, but that they will be able to repeat the story quite correctly with the aid of the pictures.

Some children like to cut out pictures, but do not know what to do with them afterward. Suppose we have a box of pictures all cut out and ready to paste. A large piece of heavy brown paper will make the foundation. A pretty house may be put in one corner, and a dog near by; some trees and flowers in the background; a man and woman in an opposite corner may be supposed to live in the house; a train of cars off in the distance, with a hammock and a chair under a tree; endless things may be found when once a picture is commenced. At first the effect will be rather laughable, but after a little practice the child will grasp some idea of relative size, and a much better picture will be the result.

In many of the current magazines are well-printed reproductions of works of art. These may be utilized by an older child in making pretty ornaments for the walls of the nursery. A long strip of heavy paper with all sorts and kinds of animals is not only interesting, but instructive; or a yard of cats or dogs

alone will make a surprising display. A margin around each picture adds much to the effectiveness. Cartridge-paper may be bought by the yard, and is especially pretty in red or green to use for a background.

Pretty little medallions for mounting are made by cutting circles or ovals of the cartridge-paper, then cutting the picture the same shape, but much smaller.

Whatever is given a child for amusement should require as little mental strain as possible, and the materials should be of light weight. If the child becomes tired of one occupation, try something different, and under no condition let him realize that you are trying to amuse him for the purpose of keeping him quiet; for if he finds out that the joy is not yours as well as his, much of his pleasure will be lost.—[Woman's Home Companion.

TRADE TOPICS.

THE M'DOUGALL DIP.—The Worthington Drug Co., of Guelph, Ont., announce that they have secured the Eastern Canada agency for the old-reliable McDougall sheep dip and cattle wash, so long and favorably known among Old Country live-stock men.

FOR BLEMISHED HORSES.—We wish to call the attention of our readers to a preparation to put horses in first-class condition. Farmers and stockmen especially should be interested in it. This is "Absorbine," a liquid that cures bog spavin, thoroughpin, sprains, bruises, capped hock, inflamed tendons, swollen glands, and all soft bunches, without blistering or removing the hair. It is well recommended to all who have horses ailing with any of these troubles. It is prepared by W. F. Young, Springfield, Mass., who offers to prescribe, free of charge, for all lame and blemished horses. A booklet on "How to Take Care of the Horse" is also sent gratis. Messrs. Lyman, Sons & Co., Montreal, have the Canadian agency for "Absorbine."

\$50 to California and Return Via the Chicago, Union Pacific and North Western Line, from Chicago, Aug. 15th to Sept. 10th. Choice of routes going and returning. Correspondingly low rates from all points in Canada. Two trains a day from Chicago through without change. Daily and personally-conducted tourist car excursions. Write for itinerary and full particulars regarding special train leaving Chicago Aug. 18th and 25th. B. H. Bennett, 2 East King St., Toronto, Ont.

GOSSIP.

During the seven days from July 4th to July 11th, 1904, official records of forty-seven Holstein-Friesian cows have been approved. All made seven-day records, seven made thirty-day records, two made records for seven weeks, one for five weeks, two for two weeks. A few of the more important ones were as follows: A full-age cow produced in thirty days 1,970 lbs. milk, containing 67.507 lbs. fat; average quality of milk 3.43 per cent. Another in the same class produced 61,499 lbs. fat from 1,720.9 lbs. milk; average quality of milk 3.57 per cent. A third cow in the same class produced 64,077 lbs. fat from 1,938.6 lbs. milk; she continued her test for seven weeks, producing a total of 101,902 lbs. fat from 3,124.8 lbs. milk; average quality of milk 3.23 per cent. A four-year-old cow, commencing her record 28 days after calving, produced in six weeks 2,727.2 lbs. milk, containing 86,556 lbs. fat. Her record for the best thirty consecutive days was 2,039.7 lbs. milk, containing 65,206 lbs. fat.

GOSSIP.

Hon. John Dryden, of Brooklyn, Ont., writes from Shrewsbury, England, that he has succeeded in purchasing a few choice Shropshire ewes and rams. He states that all he has bought so far are extra good and of excellent type. There will be about forty or forty-five imported ewes and rams coming in this importation. He describes them thus: "They will make a good-looking lot when they come together, and are the breediest lot that I have ever imported. We shall always be pleased to correspond with parties desiring any imported or home-bred sheep. Our Canadian-bred yearling rams are in good condition and doing fine; and from a bunch of thirty we can offer a few very select flock headers. We have sold all the yearling ewes of our own breeding. Frank Harding, of Wisconsin, takes the entire lot; they are of fine quality, nicely covered and very uniform."

All Fours 459, A. H. S. B., whose photo-engraving appears on another page of this issue, is one of the Hackneys to be sold at auction by Lewin & Cox, at Brantford, Ont., on August 10th, next. All Fours is four years old, stands 16 hands, weighs 1,275 pounds, and is a beautiful actor. He was sired by Fandango 143, the champion of America, dam Mischief 718. Fandango will be remembered as the winner of the Hackney championship at Madison Square Garden in 1901, first at New York State Fair, first at Pan-American, first at National Show, and first at all three shows for stallion and get. In England, where he was shown eight times, he won six firsts and two seconds in 1899 and 1900. All Fours is a very promising sire, and should prove quite an attraction at the sale. There will also be included in this sale the three-year-old Hackney stallion, Jubilee Performer 6222, 2122, E. H. S. B., by Imp. Jubilee Chief, champion at World's Fair, Chicago, dam Miss Baker 1343, E. H. S. B., an unbeaten winner. The four-year-old Clydesdale stallion, Prince Robert 2719, sire Macara 2727, dam Cherry Sweet 2787, by Cedric, is also in the sale, together with two young Hackney mares, a Standard-bred filly, fifteen months old, and a grand lot of Shorthorn and Holstein cattle and Berkshire swine. Send for the catalogue.

JERSEYS AT AUCTION.

An opportunity of getting high-class registered Jerseys, that are also great butter-producers, at purchasers' own prices, will be given by Mr. John O'Brien, Lakeroy Farm, West London, on the 18th of August, when he intends to sell at auction 32 head of Jerseys. This herd requires no introduction to those familiar with Jerseys. The imported cow, Eye of Hillhurst 22808, sired by Silver Sun, dam Ella of Hillhurst 22805, laid the foundation of one of the best herds of Jerseys in Canada, as their showing record bore testimony whenever they were shown. The females are almost wholly made up of her daughters, granddaughters and great granddaughters, got by such noted bulls as Spot Cash, Benito of St. Lambert, and St. Ion of Highfield 61893, dam Elena of Oakdale 84162. The average test of his dam and his sire's dam was 29 lbs. 10½ ozs. butter in seven days; 65½ lbs. milk in one day. Spot Cash was a son of the late Capt. Rolph's noted sire 100 Per Cent. Earl of Orgrove was another sire that made his mark in this herd. The herd throughout is in good condition for giving the best results. A few of them are fresh in milk, but the majority are within a few months of calving—just in the best position to give quick returns to whoever is lucky enough to get them. They are, without doubt, the ideal butter cow. Anyone just keeping a few for buttermaking will consult their own interests by attending this sale. The stock bulls are richly-bred fellows, as the catalogue will show. The October 1st issue (1900) of the "Farmer's Advocate" gives further particulars of the success of this herd. Mr. O'Brien regrets not having had his herd individually tested. He had Lilly of Orgrove No. 81526 tested; when giving 42 lbs. per day, it tested 6.90 (official). Several of her kin, as well as herself, are in the sale. His herd of 28 milkers, 10 of which are pure-bred Jerseys, the balance Jersey, Shorthorn and Ayrshire grades, tested 6.15 per cent. Write for a catalogue, and don't forget the date, August 18th.

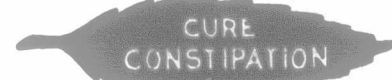
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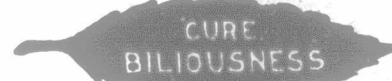
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invited, personally or by letter. **SUPERFLUOUS HAIR**, Moles, etc., eradicated forever by Electrolysis. Satisfaction guaranteed. Come during summer for treatment. Send 10c. for book and sample of cream. **GRAHAM DERMATOLOGICAL INSTITUTE** Dept. F, 502 Church St., Toronto. Estab. 1892.

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PRESS CO.,
806 West Water St.,
SYRACUSE, N. Y.

QUESTIONS AND ANSWERS.

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

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

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

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

Veterinary.

UNTHRIFTY CALF.

Bull calf, six months old, does not thrive. His hair is dry, and off in spots on his neck. He is fed ground oats, bran, linseed meal and stock food. He drinks and feeds well. J. D. S.

Ans.—Examine the spots where the hair is off, and if he has ringworm treat as recommended E. G. K., this issue. You are probably feeding the calf too highly. Give him a purgative of eight ounces Epsom salts and two drams ginger. After the purgative acts, feed reasonable quantities of grass, bran and oat chop, with a little linseed meal once or twice weekly. I do not think he will require any drugs, except the purgative. See that he gets plenty of exercise, and do not try to force him too much. V.

CALF WITH COUGH.

Calf, eight weeks old, took sick four or five weeks ago. I dosed it with oil and laudanum, and it got a little better. It is now gradually getting worse, lies down a great deal, coughs and breathes heavily. The feces are grey colored and scanty, and its hair is dry. A. M. F.

Ans.—I do not think the calf will do any good. It is probable it has tuberculosis, and I think it would be wise to destroy it. If you decide to treat, give eight ounces raw linseed oil, and follow up with ten grains each of gentian, ginger and nux vomica, mixed with one pint new milk, and give as a drench night and morning. Give all the new milk it will take, and allow it to run on grass. V.

"Who has the
right time?"
The man who has
ELGIN
TIME
every time

Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. "Timemakers and Timekeepers," an illustrated history of the watch, sent free upon request to

ELGIN NATIONAL WATCH CO., ELGIN, ILL.

CRIPPLED PIGS.

I keep my pigs (eight) in a pen, 15 x 15 feet, and a yard pen of same size. Two or three went lame, seemed stiff in joints and swollen in hocks. I have removed them, and given a run on grass and rubbed their joints with turpentine. W. L.

Ans.—The pigs became crippled from high feeding and want of exercise. You have adopted good treatment. If you do not allow all of them more exercise, it is probable your trouble has just nicely commenced. Purge any that show symptoms with four to twelve ounces of Epsom salts, according to size. Feed a little of equal parts Epsom salts, sulphur and charcoal every day, and allow them to run on grass. V.

GOSSIP.

A 1,400-pound grade Clydesdale mare, owned by Stephen Goldsworthy, of Racine, Wisconsin, is reported to have given birth to twin mare mules, one of

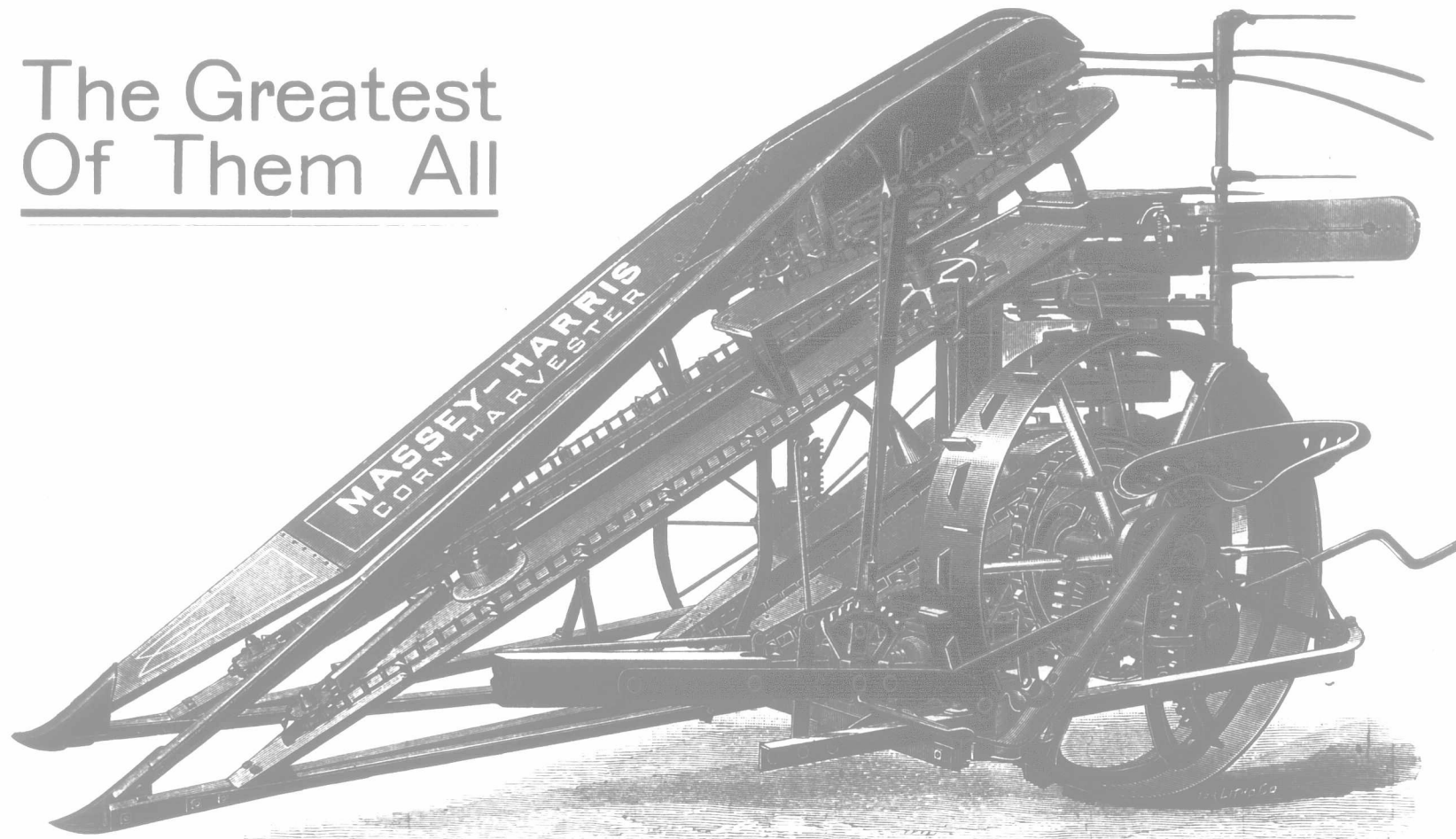
which is so much smaller than the other that it can walk under its big sister without touching her; its weight at two weeks old being only 40 lbs., and its head and ears were nearly as big at birth as all the rest of it.

Mr. T. H. Hassard, Millbrook, Ont., importer and breeder of Clydesdale horses, writes, under date July 14th: "I am sailing to-morrow for Great Britain by the Allan Line steamer, Bavarian, and expect to be back for the Toronto Exhibition with some good stallions and mares to keep up the reputation of my importations."

\$30.00 to Colorado and Return
Via Chicago, Union Pacific & North-Western Line. Chicago to Denver, Colorado Springs, and Pueblo daily throughout the summer. Correspondingly low rates from all points east. Only one night to Denver from Chicago. Two fast trains daily. B. H. Bennett, 2 East King St., Toronto, Ont.

Massey-Harris Corn Harvester

The Greatest
Of Them All



Most Reliable, Greatest Strength, Cleanest Cutting, Lightest Draft.
MASSEY-HARRIS COMPANY, Limited, TORONTO, CANADA.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS.
Miscellaneous.

A BAD WEED IN GRAIN.

You will find enclosed a weed which I find in my hay and grain. It seems to be growing thicker each year. Please give its name and habits, and best way to destroy it.

Ans.—This is bladder campion (*Silene inflata*). It has often been described in these pages. See page 903, June 23rd issue.

CARE OF YOUNG BULL.

Should a young bull, of say fourteen months old, be kept in the barn, or permitted to run on pasture with milch cows?

Ans.—He will keep in better condition in a roomy box stall with a yard or paddock for exercise, and should be liberally fed—bran and oats forming the principal part of his grain ration. If allowed to run out with the cows, he should be taken in morning and evening and given a grain ration; and in hot weather, when flies are bad, should be kept in during the day.

YARROW—MILFOIL.

Am enclosing a weed that has spread very rapidly on my farm in the last three or four years. When the field was in hay, it did not spread; but since I began to pasture it, the weed has spread very rapidly.

Ans.—This is a specimen of yarrow or milfoil (*Achillea millefolium*), the strong-scented plant with whitish downy stock, quite common in dry pastures and meadows. It does not thrive in cultivated soils, or when cut; but as stock do not eat it, it spreads in pastures when the soil is congenial.

TWO BAD WEEDS.

Enclosed you find two weeds, the names and nature of which I would like to know.

Ans.—One of these is bladder campion (*Silene inflata*). See enquiry elsewhere in these columns. The other is black medick (*Medicago lupulina*), a very close relative of alfalfa, although it has none of that plant's redeeming features. It is a little procumbent plant with the leaves toothed at the apex, flowers small and yellow, seeds black and kidney-shaped in a cluster at the end of a long stem. It is getting to be a very troublesome thing; found in all kinds of crops; seeds profusely. Methods of eradication would be to prevent it seeding by cutting and frequent cultivation of root crops and shallow and continued cultivation of stubble land after harvest.

OBSTRUCTING THE HIGHWAY.

A and B are two neighbors, who live on the same road, one mile apart. Can A pile wood on the roadside opposite his own place, or opposite B's place? Has A any control over the road opposite his own place? Has A any more control over the road opposite his own place than the road opposite B's place? Has A the control over, or certain privileges, on 4 ft. or any other width of road next to his own place more than B has? Does the law allow a person to tie a horse on the road; and, if so, under what conditions?

Ans.—They have really no rights of the nature suggested, save such as may have been given by by-law of the municipality, and as to any such by-law, the municipal clerk should be seen.

ANTS IN ORCHARD.

Will you kindly let me know through the "Farmer's Advocate" what causes ants to come on young apple trees, and what is good to get rid of them?

Ans.—We think the reason ants are found on the trees is because plant lice are also there. Aphids, or plant lice, suck the sap from the leaves, and secrete a sweet substance in sacks in the posterior part of their bodies. If one of these aphids is examined, the distended part may be seen, and also two minute hairs growing outward and upward from the body. The ants being very intelligent animals have discovered that by touching the lice upon these hairs they can be induced to give up some of the honeydew, hence the object of the ants in infesting the orchard. We would not attempt to destroy the ants, as they are not likely to do the trees or fruit much harm; but the trees should receive the whale-oil soap wash, or lime, salt and sulphur wash, in winter to destroy the lice.

(Made for the Man Who Wants the Best.)



THE GREAT WESTERN Manure Spreader

Is the only Spreader with an ENDLESS APRON and made that has an ENDLESS APRON and many advantages which it possesses. It's always in place and ready to receive the load without any turning back either by hand or complicated, easily broken machinery. The front and rear axles are of same length which, with the

Broad Tires Prevents Rutting of fields, meadows, etc. and makes wet, dry, frozen, light, chaffy, packed or caked. Spreads lime, plaster, wood ashes, cotton-seed and hulls, etc. Can be changed instantly to spread thick or thin while the machine is in motion—8 to 25 loads per acre. **END GATE AND BEATER AND HOOD PROTECTOR IN USE.** Made of best material in every way and sold under a **POSITIVE GUARANTEE** as to quality, capacity and durability. All parts breaking within one year will be replaced without charge. Write for free illustrated and Descriptive Catalogue—the best and most complete spreader catalog ever published.

GRAND DISPERSION SALE
Of High-Class Registered Jerseys



At Lake Roy Stock Farm

Within 3 miles of the city of London, and 1½ miles from Hyde Park Junction, ON

Thursday, Aug. 18, 1904

Consisting of 32 head, mostly milkers which will calve again during the next 3 months, 6 newly calved, 6 heifer calves, 4 bull calves and 2 stock bulls. Terms: 4 months' credit on approved security. 6% per annum off for cash. Sale to commence at 1.30 p.m. sharp.

CATALOGUES MAILED ON APPLICATION.
A. M. HUNT, Auct. LONDON, ONT. JOHN O'BRIEN, Prop. WEST LONDON, ONT.

GREAT DISPERSION SALE
OF
HIGH-CLASS REGISTERED STOCK

AT
Sunnyside Stock Farm, BRANTFORD, ONT., on Wednesday, Aug. 10th, 1904.

Consisting of 2 Hackney stallions, 2 Hackey mares, 18 Shorthorns, 12 Holsteins, 5 Galloways, 25 Berkshire pigs. Also one Standard-bred filly, 15 months old, and one Clydesdale stallion. Three months' credit will be given, on approved security; 5% per annum off for cash.

Sale to commence at 1 p.m. Lunch at noon.
CATALOGUES MAILED ON APPLICATION.

W. ALMAS, Brantford, Auctioneer. T. A. COX, A. L. LEWIN, BRANTFORD, PROPRIETORS.

Parties wiring bids address J. A. Smith, Brantford, or auctioneer. The Brantford & Paris trolley runs within one mile of farm.

Joseph Rodgers & Sons
Limited,
SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade. om
James Hutton & Co., Montreal, SOLE AGENTS IN CANADA.



WANTED FOR SALE

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

WANTED—Salesmen for Auto-spray—best compressed-air hand sprayer made. Splendid seller. Liberal terms. Cavers Bros., Galt, Ont.

WANTED, a FAIRLY EXPERIENCED COOK or HOUSEKEEPER in small family. No washing. Good wages, and a desirable situation. Apply to Miss Evelyn Jarvis, care of Merchants' Bank, Galt, Ont.

WANTED, WORKING HOUSEKEEPER on small farm adjoining London. No children. Middle aged woman preferred. No objection to widow with a child. Apply Thos. Ballantyne, Stratford.

THE BELGIAN CROSS.

Would a Belgian horse be a good cross with our native mares, the object being to raise good heavy farm horses? If not, what would be the objection?

Ans.—For one's own work on a farm in Quebec, we should judge that a really good Belgian horse mated with the native mares of that Province would produce a very useful and suitable class of horse; but emphasis must be put upon the character and quality of the stallion used, since in this breed as in others, there are good ones and others less desirable. If a good-selling class of horse is the object, we should rather take chances by using a good-quality Clydesdale stallion.

Advertise in the Advocate
AND GET BEST RESULTS

QUESTIONS AND ANSWERS.
Veterinary.

MARE QUIDS HER FOOD.

Mare, seventeen years old, when fed grass in the stable, chews large mouthfuls, and then puts it out until she has chewed all she has. I have not noticed her doing this on pasture. I had her teeth filed a few weeks ago. Should the front teeth be filed?

Ans.—The trouble is in the mouth. Notwithstanding the fact that you had her teeth dressed, you will have to get them dressed again. It is possible her teeth may be so worn that little good can be done. When the incisors are so long that the molars do not meet, of course they must be dressed down until the molars come in proper contact with each other.

INDIGESTION.

Cow milking since September has been fed enough hay and oat chop to keep her looking well. I turned her on grass a week ago and she has had no grain since. I notice her grunting when she walks; she is a little dull; she chews her cud, and has not been bloated. She is getting worse.

Ans.—This is indigestion, caused probably by the sudden change of food. Put her in the stable; give two pounds Epsom salts and two ounces ginger, dissolved in two quarts warm water, as a drench. Allow nothing to eat but a little sloppy bran until the bowels move freely. Give two-dram doses of nux vomica three times daily, until purgation ceases. If necessary, repeat the purgative in a rather smaller dose, say one and a half pounds, in thirty-six to forty-eight hours. If she does not yield readily to treatment, you had better call your veterinarian in.

SCROTAL HERNIA, ETC.

1. Colt, three months old, has scrotal hernia; the scrotum is as large as a teacup.
2. A three-year-old horse seems to be bright in his eyes; but the eyeballs seem to sink in his head in the corner of the eye.
3. Two calves have ringworm.

Ans.—1. Unless the rupture is increasing in size, leave it alone, and nature will in all probability effect a cure. If it is getting larger, get a veterinarian to operate. Any interference by an unskilled person will produce serious complications.

2. The symptoms given do not denote any disease of the eye. I am inclined to the opinion that the eyes are congenitally rather sunken and if so, of course, nothing can be done.

3. Moisten with vaseline, in a few hours remove all the scabs and scales; then apply tincture of iodine twice daily as long as necessary.

MISCELLANEOUS ENQUIRIES.

1. Four-year-old horse continuously grinds his teeth when he has the bit in his mouth.
2. Is a horse more liable to interfere when he is thin than when he is fat?
3. Horse was turned out on pasture during June, and came in thinner than when he went out; coat faded and dry.
4. What will I feed to darken his coat, and what should I put on?
5. How can I fatten a horse in two weeks?

Ans.—1. The bit causes him to champ. Nothing can be done, more than see that the bridle fits properly, and use plain snaffle bit. It is probable the habit will cease gradually, as he becomes accustomed to the bit.

2. Yes; the stronger he is, the less liable to interfere; but some horses are so formed or have such a peculiarity of gait that they will interfere at all times, and the wearing of a boot is necessary.

3. The want of the usual grain ration caused him to fail. If you had given him a little grain daily, or left out for another month, he would have done well. The sun faded the coat.

4. Feed hay, rolled oats, bran and a little linseed meal, and groom well and often. Do not apply anything except grooming.

5. You cannot materially alter the condition of a horse in so short a time without injuring his constitution. Feed and care, as stated in the answer to the 4th question, and exercise daily.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Sunshine Furnace



Flues Easily Cleaned

Cleaning out the flues of most furnaces is so difficult and complicated that only an expert can do it, and experts' services usually come high.

The flues in the Sunshine Furnace can be cleaned from two different clean-out doors and from the feed-door, so that there is no part of the flues which is not easily reached.

A special brush for this purpose is always supplied, and the operation is so simple that a boy can perform it.

The whole Sunshine Furnace construction is on the same plan of simplicity.

Sold by all enterprising dealers. Write for booklet.

McClary's

LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER, ST. JOHN, N.B.

QUESTIONS AND ANSWERS.
Miscellaneous.

FALSE PRETENSE.

Can a man be punished for signing himself as an agent, when he swears in court he is not, but only buys and sells, and on what charge? M. W. B.

Ans.—Possibly as for a false pretense, which is defined by the criminal code to mean a representation, either by words or otherwise, of a matter of fact, either present or past, which representation is known to the person making it to be false, and which is made with a fraudulent intent to induce the person to whom it is made to act upon such representation.

EXPROPRIATION OF WATER SUPPLY.

1. Has a town corporation the power to expropriate a spring and land with right-of-way for municipal waterworks purposes, the spring and land being outside the corporation?

2. Can the owner be compelled to sell the spring and land at the corporation's valuation?

3. Can the corporation be held responsible by the owner for any inconvenience caused him by the town's waterworks system?

4. What act or acts covers the whole question? ENQUIRER.

Ans.—1. Yes, if within ten miles of the municipality.

2. No; the value may be fixed by arbitration.

3. The matter of damages may also be referred to arbitration in the event of the corporation and the land owner being unable to agree respecting same.

4. The principal acts on the subject are the Consolidate Municipal Act, 1903, and the Municipal Waterworks Act (Revised Statutes of Ontario, chapter 235).

CUSTODY OF TRAPS.

A year ago last spring an Indian left in my charge a number of steel traps, saying he would call for them the following winter. He has not done so yet, and now a village storekeeper says the above Indian got the traps from him and did not pay for them, and asks me to give them to him, saying he will take all responsibility. I have written the Indian once, but had the letter returned; now the storekeeper tells me the Indian is in the hospital.

1. Can he claim the traps?

2. Shall I be free from any action if I get a written note from him saying he got the traps? NEW ONT.

Ans.—1. He does not appear to be in a position legally to do so.

2. No. We would add that apparently the proper and regular course for the storekeeper to take in order to make the traps available for payment of the price at which he sold them to the Indian, is to obtain judgment for the amount in the Division Court, and have the articles seized and sold under an execution to be issued upon such judgment.

GREEN CROP FOR MANURE.

I have a piece of land, mostly gravelly loam, which I wish to enrich without the aid of manure. There is fall wheat on it now, and wish to put in a spring crop next year. Would it be practical, as soon as the present crop is off and the weather is favorable for seed germination, to prepare a seed-bed and sow some crop to plow under? What would you advise to sow to give the most fertility, and when is the best time to plow under? G. A. W.

Ans.—In cases of this kind, where one cereal crop is to follow another, the first should be seeded heavily to red clover in the spring, and receive a light harrowing afterwards. It does not hurt the grain. Then after harvest, say in September, the clover can be plowed lightly and made to decay near the surface. In this case cultivate or gang-plow lightly, make a good seed-bed, and sow a bushel of vetches, about a peck of buckwheat, and eight or ten pounds of red clover or crimson clover seed. This should give a good amount of vegetable matter to plow under. But what such a soil really needs is nitrogen, and the short season between harvest and fall plowing is not long enough for the bacteria upon legumes, which gather nitrogen, to develop, hence the importance of sowing clover in the spring. Plow in the crop in the fall, not deep, try and keep the vegetable matter near the surface, and work well in the spring.



Curb, Splint,

contracted cord, thrush, grease heel and all forms of lameness yield readily to

Tuttle's Elixir.

Used and endorsed by Adams Express Co., Reading Trotting Park, Mass., Aug. 31, 1899.

Dr. S. A. Tuttle, V. S.

Dear Sir:—I want to add my testimonial to your list recommending Tuttle's Elixir for curbs, broken tendons, thrush, and nails in the feet. I have used it on all of these cases many times, and never failed to make a cure. J. H. NAY.

Given internally it is sure cure for Colic, Distemper, Founder, Pneumonia, etc.

TUTTLE'S FAMILY ELIXIR cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," FREE.

Dr. S. A. TUTTLE, 66 Beverly St., Boston, Mass.

Beware of so-called Elixirs—none genuine but Tuttle's. Avoid all blisters; they offer only temporary relief if any.

LYMAN, KNOX & SON, Agents, Montreal and Toronto, Canada.

OILS.

We sell Cylinder Oils, 650 fire test, made from Pennsylvania stock, dark or amber color, as follows: 4-gallon jacketed can, \$2.50; 8-gallon jacketed can, \$4.50; half-barrel (25 gallons), \$10.50; barrel (50 gallons), \$18.00. We guarantee satisfaction. Anyone not pleased may return oil at our expense and we will return pay for unused portion. Our catalogue on application.

Windsor Supply Co., Windsor, Ont.

VIRGINIA The best low-priced lands; no HOMES stones; best trucking, fruit, stock and poultry section; good water. FINEST CLIMATE TO BE FOUND ANYWHERE. Very healthy. Fine shipping point. Write H. V. WEISS, Manager of Immigration, Emporia, Va.

A. E. SHERRINGTON
WALKERD, ONT.

Importer and breeder of **BARRED P. ROCKS** exclusively. Eggs, \$1.00 and \$1.50 per setting of 13.

SAVE THE CHICKS.

The world's record in chick raising—the most and the best—is held by Puritan Chick Food.

Costs nothing if not the best in the world. Try it free. Send for catalogue today.

Puritan Poultry Farms & Mfg. Co., Stamford, Conn.
A. J. MORGAN, London, Ont., Sole distributor for Canada.

RUPTURE.

Write for particulars as to how to cure it without a risky operation. Invaluable advice FREE

C. H. Dorewend, R. S., Toronto, Ont.

State your case when writing. 393 Yonge St. Ont.

GLENGARRY FARM

Situate 12 miles from the beautiful city of Victoria, capital of British Columbia, comprising 250 acres most desirable property, being well adapted for mixed farming or stock-raising. Good soil, level land, well fenced, good buildings, with 1/2 mile of delightful water front and beach on the beautiful water of Perry Bay. It is an ideal place for a home. Boating and fishing, with an abundance of game. Excellent Government roads. Price \$18,000. A. Williams & Co., Ltd., 104 Yates Street, Victoria, B. C.

WHEN YOU BUILD OR REPAIR

We can help you to do it cheaply and permanently with our Sheet Metal building materials. They are ornamental, durable, lightning and fire proof.

Write us about your plans and ask for our free catalogue.

The Metal Shingle & Siding Co., Limited
FALSTON, ONT.

IF YOU BUY

S. & H. HARRIS' HARNESS REQUISITES.

Harness Composition
Saddle Paste Saddle Soap
Jet Black Oil
Black Dye For staining Hoof Oil
Ebonite Waterproof Blacking
British Polishing Paste
For Metals and Glass

Sold by all Saddlers and Ironmongers.
Manufactory: London, Eng.

AGENTS FOR CANADA:
B. & S. H. THOMPSON & CO., Ltd.
MONTREAL.

YOU HAVE THE BEST

"SEND FOR FREE ILLUSTRATED PRICE LIST."

Bicycles for Ladies and Gentlemen, only \$10.00. For the small sum of ten dollars we can sell you a first-class second-hand wheel. These wheels are all up-to-date and fully guaranteed, nicely enamelled, and look as good as new ones. Last year we sold a vast number of them; this year we expect to sell a still greater number. We sell our wheels all over the Dominion. In many instances, when a wheel is purchased in a neighborhood, and is seen by the friends of the purchaser, we get a great many orders from that district, which shows how our wheels are liked. With each wheel we send a tool bag and full kit of tools. Wheels are nicely crated for shipment without extra charge. Remember, many of these wheels are worth \$20, but to make a quick sale of them we are offering them at this very low figure. We advise customers to buy before the rush.



Remember the price, only \$10.00.

Combination Cobbler's, Harness-maker's, and Tinsmith's Outfit, only \$1.80. This very handy set of tools will save many a run to the shoemaker, harness-maker, or the tinsmith's; only \$1.80.

Farm Bells, \$1.75, \$2.25, \$3.00 and \$4.00.

Church Bells, from \$12.00 to \$50.00.

Remember, we have been in the mail-order business for nearly twenty-five years.

WILKINS & CO., 166 and 168 King St. E., Toronto, Ont.

STRONG DURABLE

Ideal Woven Wire Fencing

Is made to last and give good service. Large Hard Steel Wire Throughout
The lock cannot slip and will not rust.
Catalogue, showing a style for every purpose, FREE. Write to-day.

The McGregor-Banwell Fence Company, Limited,
WALKERVILLE, ONTARIO.

British Columbia Farms

We have for sale a very large and complete list of selected dairy farms, orchards, poultry ranches and suburban homes, in the valley of the celebrated Lower Fraser and adjacent islands on the coast. All in the neighborhood of Vancouver. Send for our pamphlet giving weather statistics and market prices of 27 different kinds of farm produce.

The Settlers' Association,
322 Cambie St.,
P. O. Box 329, Vancouver, B.C.

TORONTO ENGRAVING CO.
92 BAY ST
CUTS BY ALL PROCESSES
LIVE STOCK A SPECIALITY

RUPTURE Have you a rupture that all the specialists have failed to hold or to cure? Have you wasted money in a vain pursuit for relief? If so, write me, and I will tell you how to cure yourself. If you have a very bad case, it's for you particularly. Full information free.

F. H. Weese, Specialist, Toronto, Ontario.

CLYDESDALES

I am sailing July 15th for Great Britain, and expect to be back for the Toronto Industrial Exhibition with some good stallions and mares to keep up the reputation of my importations. Intending purchasers will consult their own interests by seeing my horses before buying elsewhere.

T. H. HASSARD, Millbrook, Ont.

IMPORTED Clydesdales

My lot of selected stallions and fillies just landed were got by such noted sires as Senator's Heir, Lord Lovat, Prince of Carriachan (8151), Moncreiffe Marquis (9953) and others noted for their individual quality.

GEO. STEWART, Howick, P. Q.

CLAYFIELD STOCK FARM

Clydesdales, Shorthorns and Cotswold Sheep for sale. For prices and description write to J. O. ROSS, Jarvis, Ont.

MERTOUN CLYDESDALES

Two choice young stallions: also one good Shorthorn bull and a few heifers. Prices right. Visitors will be met at Seaforth, G. T. R., on application to

D. HILL, STAFFA P. O., ONT.

FOR SALE. Three Imported Clydesdale Fillies

3 years old, weighing from 1,550 to 1,700 lbs each.

PATTERSON BROS., Millbrook, Ont. Cavanville, C. P. R. Millbrook on G. T. R.

2 Registered Clydesdale Stallions FOR SALE.

For price and particulars write to R. & C. PALING, Caledonia Stn., & Tel., North Seneca.

Spavin and Ring-bone

Once hard to cure—easy now. A 45-minute treatment does it. No other method so easy, quick and painless. No other method sure.

Fleming's Spavin and Ringbone Paste

cures even the very worst cases—none too old or bad. Money back if it ever fails. Lots of information if you write. Book about Spavin, Ringbone, Curb, Splint, Bog Spavin and other horse troubles sent free.

FLEMING BROS., Chemists, 45 Front Street, West, Toronto, Can.

"THE REPOSITORY"

WALTER HARLAND SMITH, Prop.



Cor. Simcoe and Nelson Sts., TORONTO.

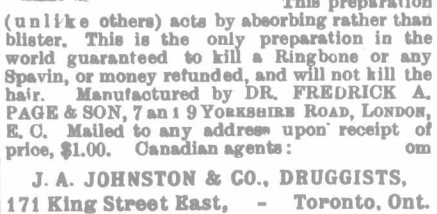
Auction Sales of Horses, Carriages, Buggies, Harness, etc. every Tuesday and Friday at 11 o'clock.

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.

Dr. Page's English Spavin Cure

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and o remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blister. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by DR. FREDRICK A. PAGE & SON, 7 and 9 York Street, LONDON, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: J. A. JOHNSTON & CO., DRUGGISTS, 171 King Street East, Toronto, Ont.



CLYDESDALES

AYRSHIRES and POULTRY.

R. Ness & Sons, Howick, Que.

importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle, and poultry, have for sale 5 Clyde stallions, sired by Baron's Pride, Sir Everitt and Royal C. Hick, 1 Percheron, and 1 Hackney winners Ayrshires of both sexes, and poultry.

Thorncliffe Clydesdales

THORNCLIFFE STOCK FARM has for sale some excellent YOUNG CLYDESDALE STALLIONS of right stamp, and a number of superior MARES from imported dams, by imported sires, and now in foal to the imported stallion "Right Forward." For prices, etc., apply to

ROBERT DAVIES
36 Toronto Street, TORONTO.

HAY FEVER AND ASTHMA Prompt relief. Cause removed. Symptoms never return. A complete and permanent constitutional CURE. Book 5¢ Free. Write at once for it, to P. HAROLD HAYES, Buffalo, N. Y.

GOSSIP.

The final edition of the premium list of the Live-stock Department of the Louisiana Purchase Exposition is being issued and sent to all applicants. A grand total of almost half a million dollars is being offered in prizes for live stock—the exact figures being \$438,702.25. It is divided as follows: Horses, \$115,790; cattle, \$105,106.25; sheep, over \$56,000; swine, over \$47,000; poultry, pigeons and pet stock, over \$22,000; dogs and cats, over \$15,000.

Messrs. Alex. Hume & Co., Menie, Ont., breeders of high-class Ayrshire cattle, make a change in their advertisement in this issue, in which they offer for sale young bulls and heifers of various ages, the get of the champion sire Imp. Prince of Barcheskie, and others of similar merit. This is one of the standard Ayrshire herds of Canada that has been bred on intelligent lines for type, conformation and production combined, that has been kept up to date, and that has stood well in leading competitions, winning last year at the Dominion Exhibition at Toronto first place for young herd and first for the young stock bull, Lessnessock Royal Star (imp.), a model of the modern Ayrshire, second for four animals bred by exhibitor, and three out of the four prizes for junior heifer calves, besides a good share of the prizes in many other sections of the class. The firm expect to be on hand at Toronto again this year with a good lot.

The firm of John Gardhouse & Son, Highfield, Ont., ranks among the best-known breeders and importers of Shire and Clydesdale horses and Scotch Shorthorns. The herd is headed by Imp. Scottish Prince (84728), by Golden Champion, by the great show bull, Lovat Champion. Scottish Prince is bred much the same as the champion, Lord Hanf, and is a bull of good scale, well covered with flesh of good quality, and his calves so far promise well. Most of the young things in the herd are by Prince Louis, a Lancaster bull, some of which will make show heifers, the dams of two being half-sisters to St. Valentine, the sire of Ruberta, the champion of America.

The Shire mare, Laura, that has won many honors, including silver cup and medal at Toronto several times, is now nursing a fine stallion foal, by Newham's Duke (imp.), a gold medal winner at Toronto, 1902, as a three-year-old. Royal Albert 20367, the three-year-old Shire stallion, has done extra well since the Toronto Spring Stallion Show. Black Bess, a four-year-old, by Darnley, is a thick, heavy, good mare, as is also her yearling filly, sired by Pride of the Morning; but to the writer's mind, Viola, one year old, is one of the choicest in the lot. She is sired by Pride of the Morning, and her dam, Violet, won second prize at Toronto, 1903, with a two-months-old foal by side. Violet has been a medal winner at Toronto previously. Clydesdales have only one representative here at present, viz., Sweet Briar 5071, by Eastfield Laddie 1712, and a very good one she is. This firm has also established a select flock of Lincoln sheep.

KEEP IT IN THE HOUSE.

Castor oil is neither new nor nice, but it is good for many things. It will cure a cold, brighten bleary eyes, clear a Canton-flannel tongue, clear a muddy complexion, and drive away the blues and make the wheels go round. A dose a month, followed by a diet of soups, chops, toasts, hot beverages and fruit, will reform a bad stomach and rebuild the health of a dyspeptic.

The druggists charge ten cents a dose. They use root beer or pop. It is cheaper and more convenient to buy an ounce and a lemon, and take them before going to bed. Squeeze half the juice into a small glass, pour on top one tablespoon of oil, add the rest of the lemon juice and swallow. Two days later the ugly girl will be in fine fave.

This old-fashioned remedy is the best thing in the pharmacopoeia for pimples, cold sores and similar eruptions. It never fails, and it is absolutely harmless. As a cold cure, it hasn't a peer. It will succeed after everything else fails.—[Healthy Home.

JUST A COLD SETTLED IN THE KIDNEYS, BUT IT TURNED TO DROPSY.

IT WAS CURED BY

DOAN'S KIDNEY PILLS.

Read of This Wonderful Cure. It May Do You or Your Friends Some Good to Know About It.

Miss Agnes Creelman, Upper Smithfield, N.S., writes:—About 18 months ago I caught cold. It settled in my kidneys, and finally turned into Dropsy. My face, limbs, and feet were very much bloated, and if I pressed my finger on them it would make a white impression that would last fully a minute before the flesh regained its natural color. I was advised to try DOAN'S KIDNEY PILLS, and before I had used half a box I could notice an improvement, and the one box completely cured me. I have never been troubled with it since, thanks to DOAN'S KIDNEY PILLS.

Price 50c. per box, or 3 boxes for \$1.25; all dealers, or The Doan Kidney Pill Co., Toronto, Ont.

NEW PATENT

The Automatic AERATOR

Actioned by the only force of water. Will operate during the whole night, and will render to the milk its natural quality.

NOTICE to Buyers, Sellers, Exporters, and Farmers.

That Automatic Aerator will be for our Cheese and Butter fabrication a great success and will bring a foremost reputation to our Milk Industry, and besides it gives a better revenue of 20%. That new Patent will be sold at a very low price, as the proprietor is not in a position to carry it in the present circumstances. Address to

LA CIE SAVOIE ET GUAY, Plessisville, Que.

WHEN YOU BUILD A NEW HOUSE

Roof it with our Galvanized Steel Shingles. They are lasting and ornamental; lightning and fire proof, and keep out the weather. Send careful dimensions of roof for free estimate and free catalogue.

The Metal Shingle & Siding Co., Limited
PRESTON, ONT.

Shorthorns, Clydesdales, Yorkshires

Special offering at present: Young Yorkshire pigs, either sex; pairs not akin, and of right type. A. H. HOSKIN, Cobourg, Ont., P. O. and Station.

BELL BROS., CEDAR STOCK FARM, BRADFORD, ONT.
BREEDERS OF SHORTHORN CATTLE AND SHROPSHIRE SHEEP. Present offering: heifers and heifer calves; also, 1 bull (red), 16 months Shropshire, all ages and both sexes.

JOHN GARDHOUSE & SONS

Highfield P. O., Ont., Breeders of Scotch and Scotch-topped Shorthorns, Shire Horses, Lincoln and Leicester Sheep. A good selection of young stock of both sexes always on hand for sale. Scottish Prince (imp.), Vol. 43, at head of herd. Royal Albert (imp.) 20367, at head of stud. Farms 34 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

WILLOW BANK STOCK FARM
Established 1855.
SHORTHORNS AND LEICESTERS.
Present offerings:

Young stock, either sex, from Rosicrucian of Dalnuy (imp.) 4529 and Christopher (imp.) 28359, also heifers bred to Scotland's Challenge (Vol. 20, imp.) Also first-class Leicesters. For particulars write to JAS. DOUGLAS, Prop., Caledonia, Ont.

Queenston Heights Shorthorns

FOR SALE.

2 strictly high-class bulls, fit to head any herd.

HUDSON USHER, Queenston, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

JOHN DRYDEN & SON

BREEDERS OF

CRUICKSHANK SHORTHORNS AND SHROPSHIRE SHEEP.



We offer for this season a selection from a splendid bunch of show rams, yearlings and two-year-olds. Also a select lot of yearling ewes, mostly sired by the imported Mansell ram, "Royal Dreamer."

om Station and Post Office, Brooklin, Ont.
Shorthorns and Clydesdales.

We are now offering an extra good lot of young bulls, home-bred and imported; also stallions, and a few young ewes which are in foal.

JOHN MILLER & SONS, Charentz Sta., C.P.R. on Brougham P.O.

OAK LANE STOCK FARM. Shorthorns Cotswolds Yorkshires and Barred Rock Fowls.

Imported and Canadian-bred Shorthorns. Om to take orders for N.-W. trade. Write for prices. Satisfaction guaranteed.

GOODFELLOW BROS., MACVILLE, ONT.

PINE GROVE SHORTHORNS. High-class SCOTCH SHORTHORNS and SHROPSHIRE SHEEP.

Herd won 1st prize, open to all ages, and for herd under 2 years, Dominion Exhibition, Toronto, '03, headed by imp. "Marquis of Zenda," bred by Marr; imp. "Village Champion," bred by Duthie; "Missie Champion," son of imp. "Missie 153rd," and "Clipper King," a Cruickshank Clipper. Imported and home-bred bulls and heifers for sale.

W. C. EDWARDS & Co., Ltd., Proprietors. JOE W. BARNETT, Mgr., Rockland, Ont., Can.

T. DOUGLAS & SONS, STRATHROY STATION & P. O.,

Shorthorns and Clydesdales 55 Shorthorns to select from. Present offering: 14 young bulls of splendid quality and serviceable age, and cows and heifers of all ages. Also one (imp.) stallion and two brood mares.

MAPLE LODGE STOCK FARM, 1854

An offering a very superior lot of **Shorthorn Bulls and Heifers** as well as something VERY attractive in **Leicesters.**

Choice ewes got by imported "Stanley" and bred to imported "Winchester." Excellent type and quality om A. W. SMITH, MAPLE LODGE, ONT.

Shorthorn Cattle and Lincoln Sheep

Scotch Heifers for sale: Clippers, Miss Ramedens, Maids, bred to imported Governor-General -28865-, and imported Proud Gift (84421). They have both breeding and individual merit.

J. T. GIBSON, Denfeld, Ontario.

Spring Grove Stock Farm

Shorthorn Cattle and Lincoln Sheep.



T. E. ROBSON, ILDERTON, ONT., SHORTHORNS.

Importer and breeder of choice Shorthorns. **Scottish Hero 150736** at the head of herd. om JAS. A. OREAR, Shakespeare, Ont.

Sunnyside Stock Farm. **JAMES GIBB,** Brookdale, Ontario. Breeder of high-class SHORTHORN CATTLE (imp.) "Brave Ythan" at head of herd. Stock for sale.

W. B. Watt's Sons BREEDERS OF SHORTHORNS and CLYDESDALES

Don't miss the chance to get a grand cow or heifer, in calf to the \$1,200 Scottish Beau (imp.) from the herd that has produced more champions and won more herd prizes than any other herd in Canada. A fine blocky pair of bull calves and a yearling stallion for sale at once. Write for particulars.

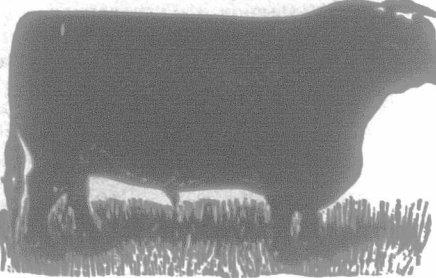
Elora Sta., G.T.R. & C.P.R. Salem Post and Tel. Office. 'Phone connection.

THOROLD CEMENT AND PORTLAND CEMENT

FOR BARN WALLS AND FLOORS, HOUSES, SILOS, PIGPENS, HENHOUSES; AND SEWERS, TILE, ABUTMENTS AND PIERS, FOR BRIDGES, GRANOLITHIC SIDEWALKS; IN FACT, FOR ALL WORK THAT CAN BE DONE WITH CEMENT.

Estate of John Battle THOROLD, ONT.

WHOLESALE IN CAR LOTS ONLY.



30

First-class Shorthorn Heifers For Sale

9 imported heifers. 21 home-bred heifers. These heifers are Scotch, many of them in calf. Prices moderate.

ARTHUR JOHNSTON, Greenwood, Ontario

SHORTHORNS

Some extra good young bulls for sale. Catalogue.

JOHN OLANOY, Manager.

H. CARGILL & SON, OAKVILLE, ONTARIO.

High-class Shorthorn Cattle and OXFORD CLASS DOWNSHEEP Present offerings: Young stock, either sex. For prices and particulars write to JAS. TULTON & SON, Walkerton, Ont.

First-class Shorthorns—Young cows and heifers of fashionable breeding. Also Shropshires of different ages. Write for prices, etc., to T. J. TULLS, Howmanville Stn., G. T. R. o Tyrore P. O.

GREEN GROVE STOCK FARM. Herd headed by Abbotsford -19446-. Choice lot of young cows and heifers for sale, of such families as Charles, Villages, Fairy Queens, Isabelles, Urya, Rose of Autumn, and other good families. Apply to W. G. MILSON, Goring P. O., Markdale Sta., Ont.

GEORGE D. FLETCHER, BINKHAM, BREEDER OF SCOTCH SHORTHORNS.

Our herd of breeding cows, both imported and home-bred, are of the most fashionable Scotch families, such as Cruickshanks, Orange Blossoms, Mystes, Crimson Flowers, Nonpareils, and several others, and none are more noted than our present stock bull, Imp. Joy of Morning 32970, winner of 1st prize at Dominion Exhibition, Toronto, 1903. Stock of either sex, almost any age, for sale.

High-class Shorthorns—Two bulls ready for service. Also young cows and heifers of different ages, of the Lavinia and Louisa families. For prices and particulars apply to BROWN BROS., Lakewood Farm, Orono P. O., Newcastle Station, G. T. R.

SHORTHORNS and LEICESTERS

Am offering young bulls and heifers from imp. sires, and the dams of the best Scotch families.

LEICESTERS

Choice yearling rams and yearling ewes, and this season's crop of lambs. Also a number of Berkshire pigs of both sexes ready to ship. For description and price, write to W. A. DOUGLAS, Tuscarora P. O., Caledonia Station.

WHEN YOU BUILD A NEW BARN

Roof it with Corrugated Galvanized Steel Sheets, in 8 ft. lengths. They are applied over sheathing or direct to rafters, making a light strong covering. Very lasting; lightning and fire proof.

Ask for our free catalogue and send rafter and ridge lengths. For estimates. The Metal Shingle & Siding Co., Limited PRESTON, ONT.

GOSSIP.

Lincoln, Shropshire, Oxford and Hampshire rams are wanted by J. H. Patrick, Ilderton, Ont., to fill orders from the West. See his advertisement in this issue.

Messrs. S. J. Pearson, Son & Co., Meadowvale, Ont., breeders of Shorthorns and Berkshires, write: "We have one nice young pure Scotch bull for sale. He belongs to the Rosebud family, also some very choice Berkshire boar pigs and a few sows. The demand for Berkshires has been good this year. We believe they are going to take the lead again."

Mr. Frank W. Smith, Scotland P. O., Ont., breeder of Shorthorn cattle, writes: "I will sell or exchange my imported bull, The Scire -36122-. He is very kind and useful, but have had him two seasons. I still have Ringleader, which is developing into a very choice animal, weighing at nine months old 875 pounds, and my two-year-old heifers have calves at foot, which, along with the older ones will make about 20 good ones for next season's trade. Ringleader's photo appeared in a former issue of the 'Farmer's Advocate.' Last year's calves are all sold, which speaks for their quality."

CATTLE-JUDGING AT ST. LOUIS.

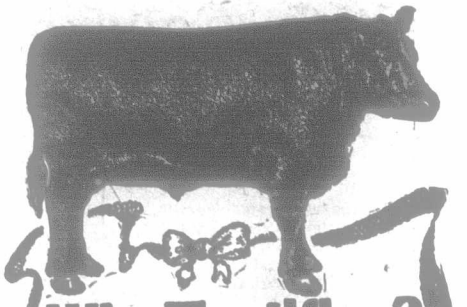
The programme of the St. Louis World's Fair provides for the judging of the beef breeds of cattle, breeding classes, commencing on Wednesday, September 14th, and continuing each day, Sunday excepted, up to Thursday, September 22nd, inclusive. Fat cattle from Monday, September 19th, to Thursday, September 22nd, inclusive. Dairy breeds, viz., Jersey, Holstein, Ayrshire and Guernsey, from Wednesday, September 14th, to Thursday, September 22nd, inclusive. Other dairy breeds commencing on September 20th.

A PIG ADOPTED BY A DOG.

A registered bull terrier, owned by J. Roy Tucker, Calloway Co., Mo., has adopted and is raising a registered Duroc-Jersey pig. The sow farrowed in the barn and the bitch under the barn, and for some reason known only to herself, the bitch wanted one of the pigs in her collection, so she took the pig to her bed with the pups when each was one day old. The pig was taken back to the sow several times, but the bitch would get the same pig and take it back to her bed again. They are the same age, but the pig outgrew the pups, for she is always hungry and fights the pups, till they get the pig by the ear, then it is all over for the pig until the pup is choked off, but they live very happily, and the bitch seems to think as much of the pig as of the pups, and the pig eats, sleeps and goes with the pups.

TRADE TOPIC.

A BEAUTIFUL BOOK.—The above caption is what everyone is saying about the new publication on the World's Fair issued by the Grand Trunk Railway System. It is without doubt the most artistic and beautifully gotten up publication that has been issued in connection with the World's Fair. On the very handsome cover are illustrations of two beautiful statues displayed at the Fair, emblematic of the Atlantic Ocean and the Pacific Ocean, embossed with steel die in high relief. The book contains 48 pages with descriptive matter of the main features of the Exposition profusely illustrated, and embodies the latest and best maps of the city of St. Louis, showing street car lines and many other features, also a map of the World's Fair grounds, and a large map of the Grand Trunk Railway System, showing the route to and from the Fair, as well as variable routes and attractive side trips that will appeal to their patrons. A chapter on "How to Reach St. Louis" is given, and all information that prospective visitors to the Fair are looking for. The publication is not only one that will interest everybody who secures a copy, but will be a handy guide to those who take in the Exposition. Copy can be had for four cents in stamps, on application to J. D. McDonald, District Passenger Agent, Toronto.



Who Testifies?

The Highest Authorities That Exist. The Government, State Authorities, Leading Breeders of All Classes.

The sovereign remedy for destroying disease germs and warding off all forms of contagion. If you believe that highest life stock possibilities come from perfect health, follow the lead of noted breeders, the teachings of veterinarians, scientists and professors of animal husbandry, and use world famous

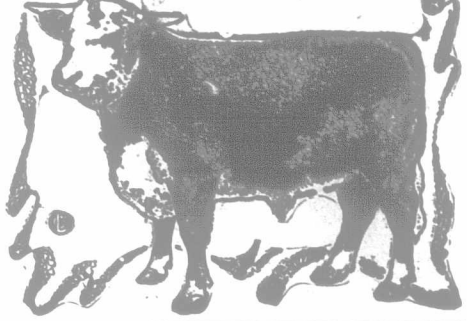
Zenoleum

Disinfectant, Antiseptic, Lice Killer.

The nearest approach to an absolute guarantee against contagion. Kills lice, cures Spanish Itch, mange, ringworm, sores, screw-worms, calf cholera, etc. Used exclusively for 3 successive years to avoid contagion at the International Live Stock Exposition at Chicago.

"The Great Coal Tar Carbolic Disinfectant Dip." Sample gallon of Zenoleum by express prepaid, \$1.50; 5 gallons, freight prepaid, \$6.50. Learn of Zenoleum, its mission, its power, its standing, by sending for free book, "Veterinary Adviser" and "Piggie's Troubles."

ZENNER DISINFECTANT CO., 113 Bates St., Detroit, Mich.



Scotch Shorthorns & Berkshire Swine AT VALLEY HOME STOCK FARM.

For Sale—Stock of all ages, of both sexes. Our Shorthorns are the thick-fleshed sort, of choice breeding and quality. Also young Berkshires of AI breeding. Stations: Meadowvale or Streetsville Junction, C. P. R., and Brampton, G. T. R. Visitors welcomed.

S. J. PEARSON, SON & CO, Meadowvale P. O. and Telegraph.

IMPORTED SHORTHORNS AND CLYDESDALES

15 imported Scotch Shorthorn heifers, all in calf or calves at foot; 2 imp. bulls; both in pedigree and individually these animals are gilt-edged. Four three-year-old imported Clydesdale fillies, very large and AI quality.

ALEX. ISAAC, Cobourg P. O. and Station

SHORTHORNS and SHROPSHIRE.

FOR SALE: Young bulls and heifers from best blood. Shearlings and lambs bred from imp. stock on side of sire and dam. Prices reasonable.

K. R. FUGH, Clarendon P. O. and C. P. R. Sta.

HILLHURST FARM (ESTABLISHED FORTY YEARS.)

Herd numbers 30, with Imp. Scottish Hero (Missie) and Broad Scotch (Sutton Buttery) in service. Some choice young bulls and heifers for sale, by Joy of Morning, Scottish Beau, and Lord Mountstephen, from imported and Canadian-bred dams of HAMPSHIRE flock 80 ewes; milk strains.

Jas. A. Cochran, Hillhurst P. O., o COMPTON CO., P. Q.

HIGH-CLASS SHORTHORNS.

8 heifers, in calf to an imported Scotch bull; 6 bulls ready for service; about 15 heifer and bull calves, from 3 to 12 months old. Prices very reasonable, considering quality. Inspection invited.

W. SMITH, Walnut Farm, Scotland, Ont.

PROSPECT HILL FARM High-class SHORTHORNS

FOR SALE: 4 bulls, from 7 to 12 months old; 2 sired by Aberdeen Hero (imp.), 2 by Royal Duke, he by Royal Sailor (imp.). Also some heifers bred to Wandering Count.

J. R. McALLUM & SON, Iona Sta., Ont.

W. G. PETTIT & SONS FREEMAN, ONT., Importers and Breeders of

Scotch Shorthorns

110 head in the herd, 40 imported and 20 pure Scotch breeding cows. Present offering: 5 imported and 6 pure Scotch from imported sire and dam; 6 Scotch-topped from imported sire; also imported and home-bred cows and heifers of the most popular type and breeding. A few choice show animals will be offered.

Burlington Jet. Sta. Telegraph & Telephone

WARNING TO DAIRYMEN

Do you send your milk to a creamery to be separated and bring home skim milk that is a mixture of that from the different herds? If so, are you not aware that you are endangering the lives of your cattle; for if any of the patrons have sick cows, there is the great danger of carrying disease home in the skim milk? A recent report stated that one party lost 29 out of 30 head, another 17 out of 22, and that the patrons of one creamery alone lost about 400 head from some very contagious disease.



PROTECT YOUR COWS BY USING A U.S. SEPARATOR

With a U. S. Farm Separator you have your own skim milk pure and sweet to feed. If these patrons had used U. S. Farm Separators and sent their cream to the creamery this disease could not have spread this way.

Remember, **The U. S. holds World's Record** for clean skimming, with average loss for 50 consecutive runs of only .0138 of 1 per cent. and

HAS LOW SUPPLY CAN.

Write for free catalogues giving its other points of superiority. We have the following transfer points: Portland, Me., Sherbrooke and Montreal, Que., Hamilton, Ont., Buffalo, N.Y., La Crosse, Wis., Minneapolis, Minn., Chicago, Ill., Sioux City, Ia., Omaha, Neb., and Kansas City, Mo. Address all letters to

270 Vermont Farm Machine Co., Bellows Falls, Vt.

SHORTHORNS Present offerings: Roan Robin 29575, a Russell bull. Also a few good females. For price and particulars write to **W. H. WALLACE, Mount Forest, Ont.**

Shorthorns, either sex; also Oxford rams. For prices and particulars write to **RICHARD WILKIN, Springfield Stock Farm, Harriston, Ont.**

Family and Stockmen's Recipes Receive expert attention with us. Send recipe for price, it will be observed as confidential and returned promptly. **The Worthington Drug Co., Guelph, Ont.** Chemists and Manufacturers of Worthington Stock Food.

SHORTHORNS. 8 young bulls, 11 heifer calves, yearlings, two-year-olds and young cows for sale. Several Miss Ramdams and the very best families represented. Prices moderate. **G. A. BEODIE, Bethesda, Ont., Stouffville Station.**

SHORTHORNS FOR SALE One grand young bull, 18 months, a dark, rich red-roan, and a show animal; also some good cows and heifers. Come and see them. **Hugh Thomson, Box 556, St. Mary's, Ont.**

Rose Cottage Stock Farm SHORTHORNS Royal Prince = 31241 = at the head, assisted by Sir Tatton Sykes = 49402 =, Royal Prince, the sire of Fair Queen, winner over all beef breeds at Chicago International Fat-stock Show, 1903. We have 6 heifers and 4 bulls for sale. **H. K. FAIRBAIRN, Thedford, Ont.**

FOR SALE; STOCK BULL Captain Bruce, quiet, active and sure. Also four young bulls, three roans and one red, from 10 to 16 months, of the low-down, thick-fleshed sort. Anyone wanting a first-class animal should come and see them, or write for prices. **W. M. McDERMOTT, Living Springs, Ont., Fergus Station.**

J. WATT & SON **FOR SALE: ROYAL WONDER 2ND**, red, 19 months old, sired by Royal Wonder, dam English Lady 12th by Royal Sallor (imp.), g. dam by Barmpton Hero. Also cows and heifers in calf and with calves at foot to imported bulls with the most up-to-date pedigrees. **P. O., Salem, Ont., Elora Stations, G.T.R. & C.P.R.**

SHORTHORNS and CLYDESDALES Present offerings: Spioy Count (imp.), Duthie; 15 bulls and heifers of his get, from 10 to 18 months old; also a few cows in calf to S. C. Fair heavy draft, rising three years old.

J. S. McARTHUR Pine Grove Stock Farm. **GOBLE'S, ONT.**

Shorthorns, Berksheires and Leicesters. **FOR SALE:** Choice two-year-old heifers, well gone in calf; also yearling heifers, bull calves. Borens and cows fit for breeding, and young pigs.

ISRAEL GROSS, ALMA, ONTARIO.

WE HAVE FOR SALE 7 Shorthorn Bulls

of serviceable age and of present-day type. 1 imp. in dam, 3 from imp. sire and dam, 3 from imp. sire, and from Scotch dams of such noted families as Rosebud, Clare, Missie, Stamford, Augusta and Strawberry, mostly sired by Imp. Greengill Victor, a Princess Royal, bred by W. S. Marr, and one of greatest bull-getters living. Also can sell a number of choice Scotch heifers, in calf. If you want a herd header, or cows that will produce them, write us. Herd numbers 75. Bull catalogue on application.

R. MITCHELL & SONS, Nelson Ont., Burlington Jct. Sta.

CEDARDALE FARM. For Sale, two richly-bred bulls, 9 months and two years old, one sired by Lord Gloucester 26995, the other by Royal Standard 27134; also some good cows in calf, and heifers, all good Scotch blood. **DR. T. S. SPROULE, Markdale P. O. and Station.**

TWO SHORTHORN BULL CALVES FOR SALE AT THE **GLENAVON STOCK FARM.** They are from good milking strains. Write or call.

W. B. ROBERTS, PROP., SPARTA, ONT. Station—St. Thomas. C.P.R., G.T.R., M.C.R.

Shorthorns, Cotswolds, Berkshires **FOR SALE.** Bull and heifer calves from one to nine months; also cows and heifers. Barred Rock eggs, Hawkins & Thompson strain, 75c. for 15; \$2.00 for 50; \$3.50 for 100. **F. BONNYCASTLE & SON, Campbellford P. O., Ontario.**

SCOTCH SHORTHORNS Twelve blocky, sappy young bulls, 10 to 14 months old, reds and roans, sired by the Princess Royal bull, Imp. Prince of the Forest = 40409 =, and out of high-class Scotch and Scotch-topped cows. Also ten thick-fleshed heifers, in calf to Imp. Prince of the Forest, placed at head of herd at cost of \$650. Come and see, or write for prices. **J. & E. OWINNICK, Chatham, Ont.**

Shorthorns and Berkshires for sale— Cows and heifers with calves at foot or in calf. Some very heavy milkers in herd. Berkshires—Young sows 7 and 9 months old; choicely bred and of bacon type. These must be sold quick. Prices reasonable. **F. MARTINDALE & SON, York P. O., Ont., Caledonia Station.**

JERSEYS For quick buyers, we are going to sell 15 bulls and 25 females. Owing to the natural increase of our herd and so many heifers coming into milk, we make the above offer. Stock of all ages. State what you want and write to-day to **B. H. BULL & SON, O. P. R. and G. T. R., Brampton, Ont.**

JERSEY CATTLE & Reg'd COTSWOLD SHEEP Some very fine heifers, all ages; 2 bull calves, 14 months and 8 months. Also some very fine ewes. **WILLIAM WILLIS & SON, om Pine Ridge Farm, Newmarket, Ont.**

BARREN COWS CURED Write for Pamphlet. **MOORE BROS., V. S., ALBANY, NEW YORK.**

GOSSIP.

The imported Shorthorn bull, Marengo's Heydon Duke, property of Mr. W. J. Shean, Owen Sound, Ont., recently died of what appeared a wasting disease. A post-mortem examination revealed the presence of eighteen wire nails in the animal's stomach, which, doubtless, accounts for his demise. Mr. Shean thinks the bull might have been saved had an operation been performed a few months ago; but who would have diagnosed the disease as "nails."

HIGH-CLASS STOCK AT AUCTION. Attention is called to the advertisement on another page in this issue of the dispersion sale, by auction, on August 10th, of some seventy head of registered stock belonging to Messrs. T. A. Cox and A. L. Lewin, of Brantford, Ont., consisting of Hackney and Clydesdale stallions and mares, Shorthorn, Galloway and Holstein cattle and Berkshire pigs. The sale will take place at the farm, near Brantford, and the Brantford and Paris trolley cars run within one mile of the farm. Catalogues may be had on application to the owners, and bids by mail or wire may be sent to Mr. J. A. Smith, clerk of sale, or to the auctioneer. See advertisement, and send for the catalogue. We have a suspicion that this offering includes some really good stock, as we know the proprietors have spared no expense in past years in purchasing high-class animals of the breed represented, and have had good success as prizewinners at the Toronto and Pan-American Exhibitions.

WOOL IN GREAT DEMAND. A letter from Butte, Mont., says there is an unprecedented demand for North-west wool this season. Representatives of Eastern houses are scouring Montana and Wyoming, buying fleeces, whether on or off the sheep's backs. According to a reputable wool buyer, 20,000,000 pounds of wool have been secured, and the average price for upwards of 9,000,000 pounds was 17 cents, a price not equalled for a similar amount in years. The remainder of the clips brought a fraction over 16 cents. Jeremiah Williams & Co., of Boston, have already purchased 9,000,000 pounds of wool, and agents are still actively bidding for every pound of fleece in sight. There is not an unsold clip in the State that will run over 60,000 pounds, so brisk has been the demand. Buyers have not waited for the public sales to begin at various warehouses, but have dispatched mounted men to all sections of the State in quest of fleeces. Montana will produce about 30,000,000 pounds of wool this season.

IMPORTANT SALE OF JERSEYS. On Thursday, August 18th, as announced in the advertisement in this issue, the entire herd of 32 high-class Jersey cattle, belonging to Mr. John O'Brien, of West London, Ont., will be sold by auction at his Lake Roy Farm, three miles from the city, and one and a half miles from Hyde Park Junction Station, G. T. R. and C. P. R. This herd was established a good many years ago, and has an excellent record, both in dairy work and in prizewinning at the Western Fair at London, where, in 1900, cows from this herd won the first, second and third prizes, the female championship and the first herd prize in strong competition, and it is questionable whether as uniformly good a class of cows has since been shown at London. The sweepstakes cow on that occasion, Spot Cash's Ella, had by her side twin heifer calves a month old, and another daughter less than eleven months old, and her shapely udder proclaimed her the heavy milker she is. She is a creditable daughter of the comely Island-bred cow, Eye of Hillhurst, imported by Hon. M. H. Cochrane, one of the best ever brought to Canada. A number of this fine family, and others equally meritorious, are included in the sale—daughters and granddaughters of the richly-bred bull, Benito of St. Lambert, which have proved themselves high-class producers. The young bulls and heifers in the herd are typical of the best of the breed in conformation and promise of usefulness, and are worthy descendants of their excellent forbears. Parties desiring to secure good family cows or a foundation for a herd of rich-producing dairy cattle should apply for the catalogue, and attend this sale.

Sharples Tubular SEPARATORS

Will you buy a separator because the agent is a "good fellow"? Some people do. Tubulars talk for themselves—are bought for themselves.

If You Have a Brand New Separator not a Tubular, put it in the garret. Get a Sharples Tubular, guaranteed to make enough more butter than the other, from the same milk; to pay 25 per cent yearly dividend on the cost of the machine. You test them side by side.

Rocketfeller is hunting a place to put money at 6 per cent; here is a guaranteed 25 per cent to you. While this dividend pays your bills the Tubular makes your life more pleasant by pleasing your wife.

A waist low milk vat saves your back. Simple bowl—easy to wash—the only one that is so. Automatic oiling; the only one that has easier to turn than others and safer. Catalogue A-193 explains better.

Canadian Transfer Points: Winnipeg, Toronto, Quebec, St. John's, Calgary. Address

The Sharples Co. Chicago, Ill. P. M. Sharples West Chester, Pa.

AYRSHIRES From winners in the dairy test five years in succession. Dairy-man of Glenora, bred from Imp. sire and dam, at head of herd. Young bulls fit for service and bull calves and females for sale. **N. DYMENT, Clappison, Ont.**

IMPORTED AND HOME-BRED AYRSHIRES The average butter-fat test of this herd is 4.8. A few young bulls and females, all ages, **FOR SALE.** **Robt. Hunter & Sons, Maxville, Ont.** Farm one mile from Maxville station on C.A.R.

For Sale—Ayrshires, all ages, and eggs for hatching from Leghorns, Hamburgs, Dorkings, ducks and Bronze turkeys. Also five Collie pups. For further particulars write to **Wm. Stewart & Son, Maple, Ont.**

BARGAINS IN FASHIONABLE AYRSHIRES. Three 2-year heifers, in calf, at \$40 each; three 1-year heifers, from \$25 to \$40; one 1-year bull, a Cherub, at \$45; one 10-month bull calf, full brother, \$30. The above stock is well grown, and would be in the game in any competition, and from stock of heavy milkers, with grand udders and quarters. **G. H. SNIDEE, Attercliffe F. O.** Can ship via M. C.E. or G.T.R. at Dunnville, or C.P.R. Smithville.

SUNNYSIDE AYRSHIRES. Are prizewinners, as well as enormous producers. I have for sale 4 young bulls, bred by the Pan-American winner, Leader of Meadowbank; females all ages, of true dairy type. **JOHN W. LOGAN, Allan's Corners P. O., Que. Howick Sta., G.T.R.**

AYRSHIRE HERD-HEADER. I offer the grand imported bull, Royal Peter of St. Anne's, an A. No. 1 bull, both individually and as a sire. Also three yearlings and a number of calves, including three last August bulls.

W. W. BALLANTYNE, STRATFORD. "Neidpath Farm" adjoins city. **Homecroft Farm, High-class Ayrshire Cattle, Chester White Swine, Barred Rock Eggs** for sale at reasonable prices. For particulars write to **J. F. Parsons & Sons, Barnston, Que.**

STOCKWOOD AYRSHIRES are bred for size, beauty and profit, from imp. and home-bred stock with high milk records and extra high test. Young stock always on hand. Prices right. **David M. Watt, Allan's Corners, Que. Brysons, G.T.R., 4 miles; St. Louis Sta., C. A. R., 2 miles.**

High-Class Ayrshires My offering of bulls consists of one August, 1903, calf and three spring calves, including one from imported Daisy of Auchenbrair, with a record in her 13th year of 12,773 lbs. milk in 9 months. All sired by imp. bull.

W. W. BALLANTYNE, Stratford, Ont.

AYRSHIRES and YORKSHIRES **CALVES** of dairy type and breeding, in show fit. Other ages. A November boar, several April pigs. Prices reasonable. Write or come and see. **ALEX. HUME & CO., Maple P. O.**

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

BARREN COW CURE

makes any animal under 10 years old breed, or refund money. Given in feed twice a day. Particulars from L. F. SELLECK, Morrisburg, Ont.

FOR SALE.—Sir Pietertje Josephine Keyes, No. 2008, Vol. 5, H. F. Asso. of Canada; calved April 19, 1901. His dam, Maggie Keyes, 26½ lbs. butter in 7 days, 19,434 lbs. milk in a year as a 3-year-old, the largest ever made at that age except by her own dam—82½ lbs. milk in a day. Maggie Keyes was by Keyes 6th. and out of Koninggen Van Friesland 5th. Also a few bull calves sired by the above bull. J. A. CASKEY, Madoc, Ont.

Riverside Holsteins

50 head to select from. Young bulls whose dams have official weekly records of from 17 to 21 lbs. of butter, sired by Victor De Kol Pietertje and Johanna Rue 5th Lad. Write for prices.

Matt Richardson & Son, Caledonia P. O. and Station.

LEICESTERS

Shearings, rams and ram lambs, shearing ewes and ewe lambs, bred from a Stanley ram and B 10 ewes. **DUNNETT BROS.,** Clanbrassil P. O., Haldimand Co.

FARNHAM OXFORDS

We had the champion flock of Oxfords in 1903. Importations annually. Animals of all ages and sexes, both imported and Canadian-bred, for sale at all times at reasonable prices.

HENRY ARKELL & SON, ARKELL, ONTARIO.

GOTSWOLDS

Shearing ram, shearing ewes. Ram lambs and ewe lambs from 450-lb. ram, winner of silver medal, Toronto.

BLAIR F. PARK, Box 21, Burgessville, Ont.

FAIRVIEW SHROPSHIRE.

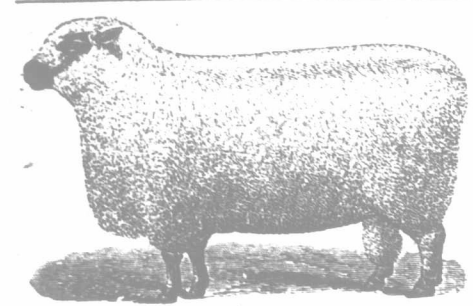
Fairview is now the home of more high-class rams and ewes than ever since the flock was founded. The flock has produced more winners than any other. Twenty-three years' close experience accounts for it, with nothing but the best being always mated. Extra good values offered for summer shipments.

JOHN CAMPBELL, Fairview Farm, Woodville, Ont.

Lincoln Sheep and Shorthorn Cattle

Choice Lincoln Lambs of both sexes. Several car loads choice yearling rams and two carloads of one and two-year-old ewes, ready for Sept. and Oct. delivery. Also some choice young bulls, cows and heifers, which will make good herd foundations.

F. H. NEIL, PROP., Telegraph and R.R. Station, LUCAN, ONT.



HILL HOME SHROPSHIRE. Yearling rams and ram lambs by above sire. Write for description, etc. **J. G. HANMER, Brantford, Ont.**

"MODEL FARM" SHROPSHIRE

Do you want an imported ram or a home-bred one to improve your flock? Our offerings will please you. 10 imported rams and many home-bred ones (from imported stock) to choose from—massive fellows, all wool and mutton and the type that pleases. Stock of all ages for sale. Prices consistent with quality. Long-distance phone No. 94. **W. S. CARPENTER, Prop., SIMCOE, ONT.**

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to **MORTIMER LEVERING, Secretary, Lafayette, Indiana, Ont.**

I Will Import:

Show or breeding rams or ewes, bulls or heifers, horses or pigs, of the improved breeds. Send orders soon to me.

ROBERT MILLER, Care of ALFRED MANSELL & CO., Live-stock Exporters, Shrewsbury, Eng.

RAMS WANTED

Lincolns, Shrops, Oxfords and Hampshires suitable for Western trade. Must be in good condition and price reasonable.

J. H. PATRICK, - Ilderton, Ont.

W. W. CHAPMAN,

Secretary of the National Sheep Breeders' Association. Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: **HOWBRAY HOUSE, NORFOLK ST. LONDON, W. C., ENGLAND.**

Cables—Sheepcote, London.

60 Dorset Sheep and Lambs

of choice breeding. For particulars write to **K. H. HEDDING, Thorndale, Ontario.**

Shropshire Sheep and Lambs,

Also an Aberdeen-Angus Bull. For particulars write to **W. R. BOWMAN, Mount Forest, Ont.**

TAMWORTHS—DORSET HORN SHEEP.

Choice boars and sows of different ages at very reasonable prices. Also a few Dorset Horn rams from first-class stock. **JAMES DICKSON, G. T. R. "Glenairn Farm."**

TAMWORTHS AND HOLSTEINS

One bull calf sired by an imported bull. Boars fit for service. Sows bred and ready to breed. 50 boars and sows from 2 to 3 months old. Pairs not akin. **BERTRAM HOSKIN, Grafton Sta., G. T. R. The Gully P. O.**

GLENHOLM HERD OF TAMWORTHS

We are now booking orders for spring litters. Have 5 boars and 5 sows, 6 months old, left, and a fine lot of younger ones. **F. O. SARGENT, Eddystone, Grafton Sta., G. T. R.**

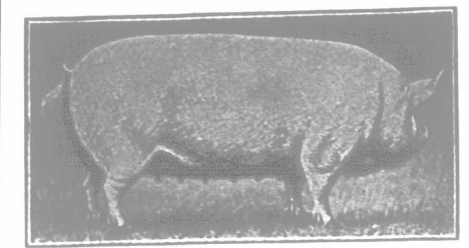
Newcastle Herd of Tamworths and Shorthorns

For quick sale, 6 beautiful sows, some bred and others ready to breed; also 4 nice Boars ready for service, the direct produce of our Toronto Sweepstakes Boar. **COLWILL'S CHOICE**, winner of First Prize 5 years in succession at Toronto, and has won the Silver Medal for Best Tam Boar, any age, for three straight years. We also have a grand lot of April and May pigs for quick sale. Also several beautiful Shorthorn Heifers from 8 to 18 months old and one 3 years old, due to calve in July to Donald of Hillhurst, son of imported Joy of Morning, winner of First Prize at Toronto, 1903, aged class. **COLWILL BROS., Newcastle, Ont.**

Maple Cliff Dairy and Stock Farm.

R. REID & CO., PROPS. FOR SALE: A number of imported Tamworth sows, one of them in pig to Darfield Grandee (imp.); also two boars imported in dam. Two Berkshire boars fit for service. **HINTONBURG, ONTARIO.**

Improved Yorkshires



Over three hundred for sale. The last three years our herd has won ninety per cent. of the first prizes at the leading shows, competing against American and Canadian breeders. We have more imported animals in our herd than all other breeders combined in Canada. We have the best blood from the leading herds in England and Scotland. Prices reasonable. **D. C. FLATT & SON, MILLGROVE, ONT.**

LARGE ENGLISH YORKSHIRE

Sows safe in imported stock, bred to imported boars; boars fit for service, same breeding as sows; boars and sows three and four months old from imported stock, pairs not akin. Write **JAS. A. RUSSELL, PRECIOUS CORNERS, ONT.**

YORKSHIRES

SPRING OFFERING: Show pigs of March farrow from imported sows. Boars and sows of breeding age, of great length and quality. Also some good imported sows bred to show boars. Write **H. J. DAVIS, Woodstock, Ont.,** Importer and Breeder of Shorthorns and Yorkshires.

Chester White Swine

between four and five months old; either sex; good bacon type. Sires and dams were prize winners at Toronto and London fairs. Write or prices. **W. F. WRIGHT, Sunnyside Stock Farm, Glanworth, Ont.**

HIGH-CLASS YORKSHIRES

Present offerings: Imported and home-bred boars and sows. For particulars write to **I. ROGERS, Weston Station and Tel. Emery P. O.**

GOSSIP.

Dunnett Bros., Clanbrassil, Ont., advertise in this issue Leicester shearing rams, ram lambs, shearing ewes and ewe lambs. The sheep industry is looking up, and Leicesters are holding their own in the battle of the breeds. They are a standard sort, always improving.

In passing through Norfolk County, Ont., recently our field man called at Mr. W. S. Carpenter's Model Farm, at Simcoe, and had a look at the flock of Shropshires. They are in the pink of condition, ready for the show any time. They are receiving the best of care at the hands of Shepherd Bradburn.

Following is the list of judges for the Toronto Exhibition Dog Show, Aug. 29th to Sept. 10th: Desmond O'Connell, London, England, Smooth-haired Fox Terriers; Arthur Maxwell, Eastbourne, Eng., Russian Wolfhounds, Greyhounds, Irish, Welsh, Wire-haired Fox, Airedale, Bedlington, Black-and-Tan, Skye and Scottish Terriers and Whippets; L. Farewell, Toronto, Ont., Sporting Spaniels; C. Y. Ford, M. D., Kingston, Ont., Collies and Old English Sheep Dogs; Dr. H. Clay Glover, New York, N. Y., Setters and Pointers; C. H. Mason, New York, N. Y., St. Bernards, Newfoundlands, Bloodhounds, English Foxhounds, Great Danes, Poodles, Dalmatians, Beagles, Dachshunds, Toy and Japanese Spaniels, Pomeranians, Yorkshire and Toy Terriers, Pugs and Italian Greyhounds; H. W. Lacy, Boston, Mass., American Foxhounds, Chesapeake Bay Dogs, Harriers, Bulldogs, Bull Terriers, Boston Terriers, French Bulldogs, miscellaneous and selling classes.

Mr. R. R. Ness, of the firm of R. Ness & Sons, Howick, Quebec, who visited Scotland last spring for an importation of Ayrshire cattle and Clydesdale horses, writes: "I now have the imported animals landed home, and all are doing well. I have made the following sales of imported animals: To J. F. Converse & Co., of Woodville, N. Y., the successful American breeders, the imported cow, Gipsy of White Hill, bred by Mr. Woodburn; to T. D. McCallum, Danville, Que., the young bull, Admiral Togo, bred by Mr. A. Mitchell, Barcheskie; to Jas. Cottingham, of Ormstown, Que., a fine young bull, also bred by Mr. Mitchell; to Howden Bros., St. Louis, Que., a good young bull, bred by Mr. Thos. Barr, Monklands, Kilmarnock, Scotland; to Mr. J. Dundon, Quebec, Que., the imported bull, Emigrant, and four cows. I have also made a number of sales of home-bred animals. Spring bull calves are mostly all sold, but have a few fine heifer calves left. I have also some fine imported heifer calves and two bull calves bred from heavy-milking cows that can be spared at right prices. My show cows are all doing fine, and will be coming into feeding and fitting for Winnipeg Exhibition, which I intend to take in."

Mr. L. Rogers, Emery P. O., Weston Station, G. T. R. and C. P. R., could boast, did not his modesty prevent, of being the breeder of some excellent Yorkshire hogs. Nottingham Lady Sarah (imp) is at the head of the sows, while a home-bred boar, out of Imp. Dalmeny Lady Frost, by Ruddington Ensign, assisted by two boars, imported in dam, heads the herd. Mr. Rogers will part with two of these boars, as his sows are all bred now. The boars are well-bred, lengthy hogs that should soon be picked up. Among the sows are four exceptionally good ones, litter sisters to the stock boar above mentioned. They are named Weston Lady Frost 1st, 2nd, 3rd and 4th, respectively, and are the right kind to produce good-feeding pigs. Mr. Rogers intended to make an exhibit at Toronto this fall had he not had the misfortune to lose some of his best spring pigs. However, he has a bunch of good ones left for the trade; but they are too young to show to advantage. One of the best litters is from Weston Lady Frost, by Weston Lad (imp.). Other good ones noticed were from Lady Sarah, by Summer Hill Ruler 2nd. Other litters also might be mentioned, did space permit; suffice it to say, Mr. Rogers can supply intending purchasers with a bunch of good things, notably the Weston Lady Frost sows and the imported boars. See the advertisement, and write him for further particulars.

All Used up by Headaches.

Could Not Eat or Work—Powders and Quick Cures of no Avail—Lasting Cure Obtained From

DR. CHASE'S NERVE FOOD.

This case of Mr. Barber well illustrates the way in which Dr. Chase's Nerve Food cures headaches.

He tried the so-called "quick cures" first, but without obtaining benefit. It is a well-known fact that such remedies when they do bring temporary relief do so with a tremendous waste of nerve force and consequent injury to the system.

Dr. Chase's Nerve Food cures by enriching the blood, vitalizing the nerves and building up the system. Headache, as well as all other symptoms of an exhausted system, disappear before its influence. Its cures are lasting because it removes the cause of trouble.

Mr. O. Barber, Simcoe, Ont., writes: "Dr. Chase's Nerve Food is a splendid medicine. I was troubled for a long time with headaches, which would come on about once a week with such violence that I could not eat or do my work. I tried headache powders and quick cures, which did no good."

"About eight months ago I took six boxes of Dr. Chase's Nerve Food, and I have not been troubled with headache since. It made a thorough and lasting cure."

Dr. Chase's Nerve Food, 50 cents a box, six boxes for \$2.50, at all dealers, or Edmanson, Bates & Co., Toronto. To protect you against imitations, the portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box.

YORKSHIRES FOR SALE

From the pioneer herd of the Province of Quebec. Both sexes and all ages. Satisfaction guaranteed on all mail orders. Also Pekin Duck Eggs for sale, \$1.00 a setting, or \$1.75 for two settings. Address, **A. GILMORE & SONS, Athelstan, Que. Railroad stations: Athelstan, N. Y. C.; Huntington, G. T. R.**

RIVER VIEW FARM

ROBERT CLARKE, Importer and Breeder of Chester White Swine Pigs shipped not akin to each other. For price and particulars, write **41 COOPER STREET, OTTAWA, ONT.**

LARGE YORKSHIRES

GLENBURN HERD—upwards of 100 fine spring pigs, sired by imported Holywell Hewson. Also a few 6 month s'boars. Prices reasonable. **DAVID BARR, JR., RENFREW, ONT.**

YORKSHIRES AND BERKSHIRES.

FOR SALE: Sows safe in pig and ready to breed. Boars 2 to 5 months old, of the long deep-sided type. At bargain prices if taken soon. Write **C. & J. CARLUTHERS, Cobourg, Ont.**

MAPLE GROVE YORKSHIRES

Six May litters from show sows, five of them Toronto winners, pairs not akin. Also young sows in farrow. Dalmeny Cavalier (imported) and Maple Grove Vanguard at head of herd. **T. J. COLE, Box 188, Bowmanville, Ont.**

FOR SALE—Ohio Improved Chester Whites,

the largest strain, oldest established right-bred herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigrees and sale delivery guaranteed. Address **E. D. GEORGE, Putnam, Ont.**

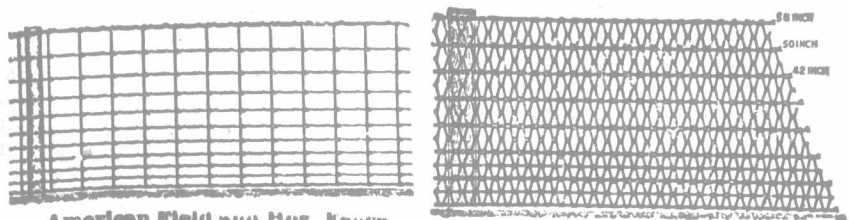
MAPLE LODGE BERKSHIRES.

Having left Soelgrove and secured Maple Lodge Farm, Brampton, I am prepared to supply pigs of the best bacon type and breeding, with fresh blood added, and in as large numbers as ever. Have a few good young boars ready for service and fine sows ready to breed. Spring pigs have come strong, and we can supply pairs not akin. Address: **WILLIAM WILSON, Box 191, Brampton, Ont.**

FOR SALE: Yorkshires and Holsteins

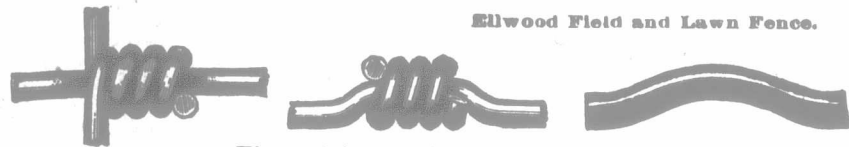
Best type and quality. Young stock constantly on hand. Prices right. **R. HONEY, Emery P. O., instead of Warkworth.**

IT'S UP TO YOU
to use not only the BEST, but the CHEAPEST
WOVEN WIRE FENCING.



American Field and Hog Fence

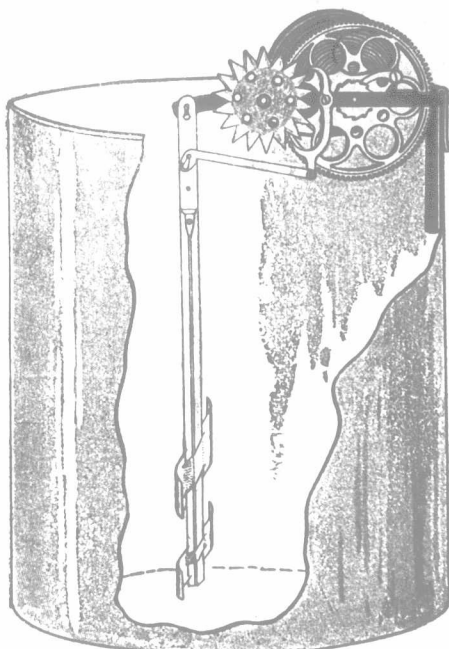
Elwood Field and Lawn Fence.



Hinge Joints and Tension Curves.

Any farmer can stretch 300 rods of our American Fence in one day. Don't buy a fence that it takes you all summer to build. If your dealer doesn't handle our fence, write to us. Farmers and railroads from Halifax to Vancouver are using it.

MADE BY **The Canadian Steel and Wire Co., Ltd., HAMILTON, ONTARIO.**
See our exhibits at the Dominion Exposition, Winnipeg. Also Fair at Brandon.

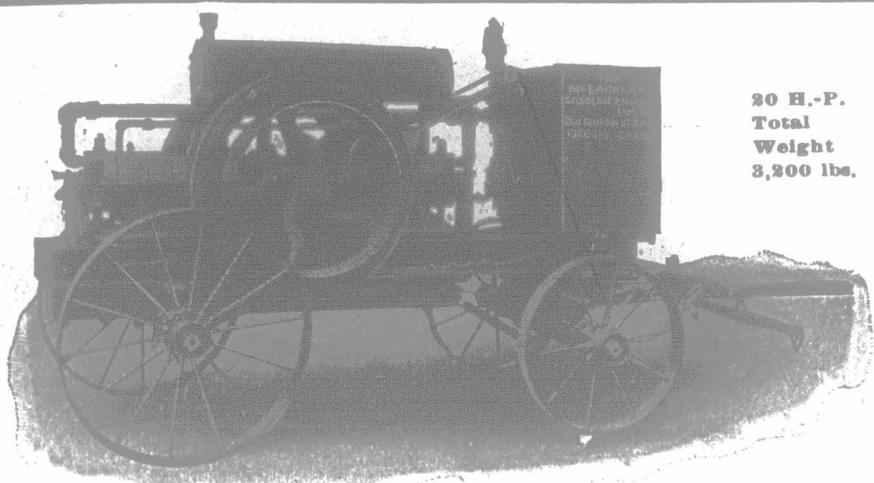


THE LITTLE GIANT
Milk Cooler and Aerator

Endorsed by all the Leading Dairymen,
Dairy Instructors and Professors...

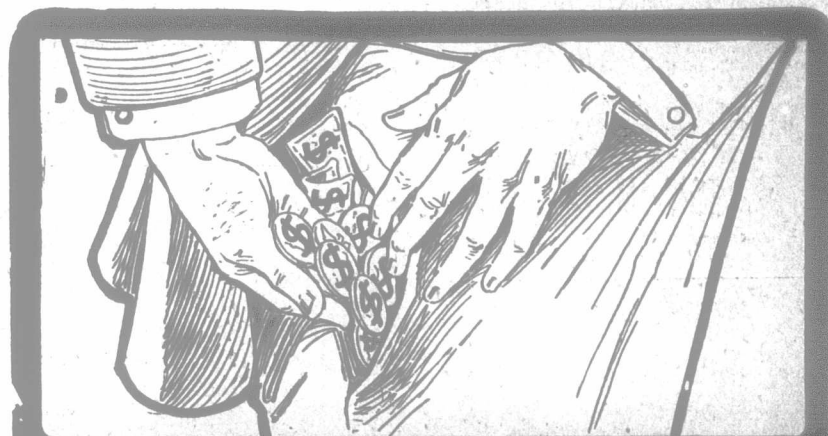
You wind up the spring that sets the paddle in motion and it cools the milk while you sleep. No more sour milk sent back from the factory.
Send for a machine at once. Cost, with brass gears, \$5.00. Send cash with order or have it sent C.O.D.
Active agents wanted in all localities. One agent says he can sell 500 in his county. Testimonials and full description on application.

MANUFACTURED AND SOLD BY
THOS. RAMSAY
THORNDALE, ONT.



20 H.-P.
Total
Weight
3,200 lbs.

Patented and Pending. **Gasoline Threshing Engine.** Write for prices, etc., to
The McLaughlin Gasoline Engine Co., Ltd., 201 Queen St. E., Toronto,
or to W. C. WILCOX & CO., Winnipeg, agents for Manitoba and Northwest.



IT'S MONEY IN YOUR POCKET

To use Pedlar Steel Ceilings.

The entire surface appears to be one beautiful combination of curves and angles, without beginning or without ending—a veritable triumph of the interior decorator's skill.

Churches, dwellings, meeting halls, stores, and offices when fitted up with Pedlar Steel Ceiling and Wall Patterns present an appearance of richness and stability that cannot be duplicated in lath or plaster. Besides they are economical.

When we know you are interested, we'll send our handsome catalogue.
THE PEDLAR PEOPLE, OSHAWA, ONTARIO.

PAY WHEN CURED



If you come to me and I tell you that I can cure you I've got confidence enough in my treatment to take all the chances. I am curing hundreds of weak men and women every day, and I know what I can cure and what I can't. If you will secure me you need not pay until cured.

Weak, Puny Men

I know that no man remains a weakling because he wants to. I am sure that you want to overcome every indication of early decay that has shown itself on you. I don't think the man lives who would not like to feel as big and strong as Sandow, and I know that if you have a reasonable

foundation to build upon I can make you a bigger man than you ever hoped to be. I want you to know that; you can't believe it, and I want you to have my book in which I describe how I learned that strength was only electricity, and how I learned to restore it; also I want to tell you the names of some men who will tell you that when they came to me they were physical wrecks, and are now among the finest specimens of physical manhood.

The Treatment is Even More Than is Claimed For It.

Dr. McLaughlin,

Dear Sir: I am glad to tell you, after giving your Belt a thorough trial, that it has proven to be all you said it would, and even more. I am very much better in every way, and feel sure I shall in time be completely cured. Thankfully yours, Mrs. Emma Patterson, Picton, Ont., December 12, 1903.

FREE BOOK. I want you to read my book and learn the truth about my arguments. If you are not as vigorous as you would like to be, if you have rheumatic pains, weak kidneys, loss of vitality, prostatic troubles, nervous spells, varicocele or any ailment of that kind that weakens you, it would assure you future happiness if you would look into this method of mine. Don't delay it; your best days are slipping by. If you want this book I send it closely sealed free. Call for free consultation.

Office Hours—9 a.m. to 6 p.m. Wednesday and Saturday till 8.30 p.m.

DR. M. S. McLAUGHLIN 130 Yonge St., TORONTO.



Varicocele Cured to Stay
Hydrocele Cured in 5 Days
No Cutting or Pain.
Guaranteed Cure or Money Refunded.

VARICOCELE Under my treatment this insidious disease rapidly disappears. Pain ceases almost instantly. The stagnant blood is driven from the dilated veins and all sources vanishes and swelling subsides. Every indication of Varicocele vanishes and in its stead comes the pleasure of perfect health.

I cure to stay cured, Contagious Blood Poison, Kidney and Bladder Troubles, Nervous Debility, and allied troubles. My methods of treatment and cure are original with me and cannot be obtained elsewhere. I make no experiments. All cases I take I cure.

Certainty of Cure Guaranteed to cure you or refund your money. What I have done for others I can do for you. My charge for a permanent cure will be reasonable and no more than you will be willing to pay for benefits conferred. **I CAN CURE YOU at Home.**

Correspondence Confidential Write me your condition fully and you will receive in plain envelope a scientific and honest opinion of your case, **FREE of Charge.** My home treatment is successful. My books and lectures mailed **FREE** upon application.

H. J. TILLOTSON, M. D., 500 Tillotson Building, 84 Dearborn Street, CHICAGO.

The WHEEL YOU WANT

For Farm and General Work
ALL IRON

Any size. Any width of tire. Made to fit any axle. Strong and durable. Costs nothing for repairs.

OUR QUEEN CITY HANDY WAGON
with iron wheels, strong and of light draft, low and convenient to load and unload; a perfect wagon for the farm. Carries five thousand pounds. Write for catalogue of both wheels and wagons. This wagon should not be confused with the cheap American wagon with iron wheels now on the market.

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H. F. ANDERSON & CO., Winnipeg, Agents for Manitoba and the N.W.T., always carry a full stock of our "Handy Wagons," but to save time order wheels direct from factory.

Advertise in the Farmer's Advocate.

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MELOTTE CREAM SEPARATORS

have the separating bowl suspended from a hardened steel spindle, which revolves in a socket fitted with ball bearings. It hangs quite freely, and thus is not only practically frictionless, but cannot possibly get out of balance. The gear wheels turn on ball bearings, which are always completely covered with oil. For close skimming the Melotte is unexcelled.

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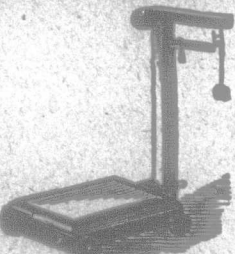
Frictionless Self-emptying and Self-balancing Bowl.

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For railroad, hay, live stock, dairy, coal and platform.

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Ask your nearest hardware man or dealer for them.

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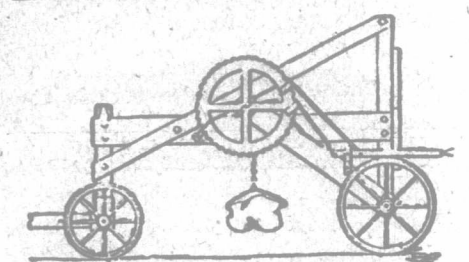
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Manufactured by

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This Stone Extractor is guaranteed for the extraction and transportation of 40 to 50 stones a day, fixed in fence.

Guaranteed as mentioned above. Agents wanted.

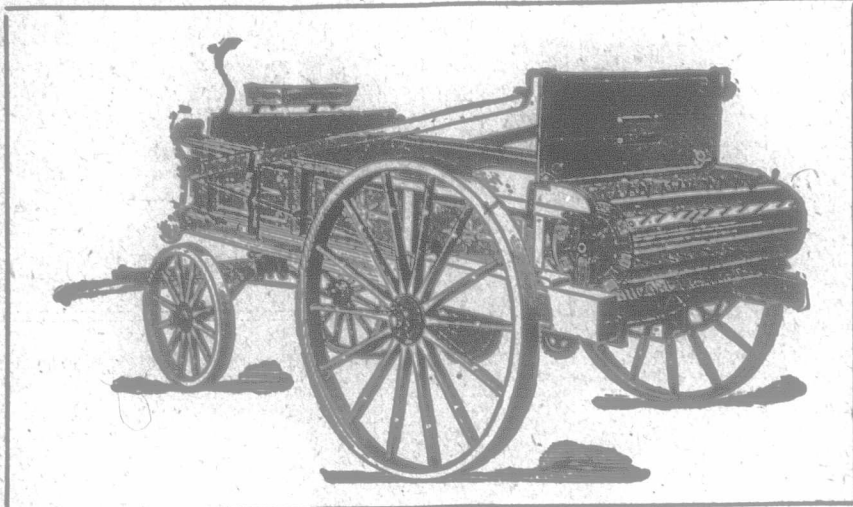
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Leading Grocers Sell It.

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A CROP-MAKER and A LABOR-SAVER.

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Yours truly, J. G. CLARK.

Drop a postal card for our Booklet, entitled "Multiplying His Acres."

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Longest, Strongest, Most Even and Best.



Our celebrated brands are Plymouth Special, Green Sheaf, Silver Sheaf, Golden Sheaf and Gold Medal.

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MANURE SPREADERS,
BLOWERS, GRINDERS, FEED
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WHEELBARROWS, TRUCKS, ETC.



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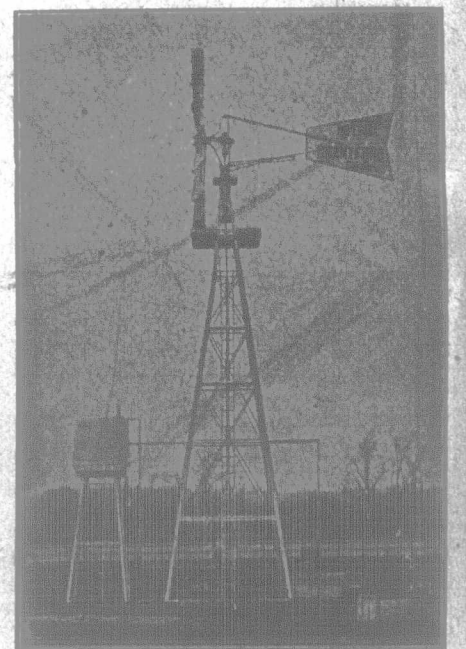
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