

**PAGES
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The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

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EDITORIAL

ENGLISH - SPARROW NUISANCE.

The article on the English sparrow, published in the Farm Department of "The Farmer's Advocate" for November 19th, has elicited protest from a Bruce County subscriber, who seems to think the sparrow does more good than harm, or, at any rate, that it should be spared on sentimental and humanitarian grounds. We do not wish to be thought heartless. Our sympathy goes out freely to all creatures of the earth and air, except snakes, rodents and vermin. We can even feel interested in the dingy sparrow. Undoubtedly, it performs a valuable service as a scavenger of yards and streets, just as our friend, the pussy cat, helps to reduce the rat and mouse population. But there is such a thing as having too much—or too many—of a good thing. When cats multiply unduly they reduce the make of butter, and help themselves to some other things to which they have questionable title. So with sparrows. Their prolificacy is responsible for an undesirable excess of their kind, which, hovering about the farm buildings and crops, befouling roofs and sometimes fodder, and helping themselves to grain, prove a filthy and expensive nuisance. It has been calculated that the progeny of a single pair of sparrows might, if unmolested, in ten years amount to over 275 billion. Their commonly-credited penchant for molesting and driving away other birds, notably swallows, is another point against them, while the recently-voiced suspicion that they may be a means of spreading the contagion of foot-and-mouth disease, will also tend to increase their unpopularity.

It really seems necessary that something should be done to lessen their numbers, and the offering of prizes to school children for the collection of sparrows' eggs, while it seems cruel, is probably no more cruel, and might prove more effective, than some other plans that have been tried. Down in Nova Scotia, the East Pictou Council of Women has made some progress in exterminating the notorious plant, ragwort, which causes the Pictou Cattle Disease, by offering prizes to school children, and there is something to be said in favor of trying this method in combating the sparrow nuisance. True, there is considerable to be said against it; for instance, the danger of children securing a considerable proportion of other birds' eggs, and developing bird-nesting propensities in the juvenile mind. Let us hear the mind of our readers as to the prudence of the suggestion.

TAFT DEFINES PROTECTION.

President-elect Taft, of the United States, gives the following definition of the measure of protection called for by the platform of the Republican party:

"It will take the difference between the cost of production here and the cost of production abroad in the making of any product, whether of the farm, the factory, or the mine, and it will impose a customs duty equal to that difference in the cost of production. That cost of production is made up at least of three elements—the cost of material, the cost of labor, and the manufacturer's profit, or interest on capital. Taking that difference, you have the measure by which the Republican party has pledged itself to revise the tariff. In other words, it has pledged itself to protect every industry, and to give every industry that needs protection the same measure of it."

This sounds very well. The difference in the

cost of production, plus the cost of transportation, will then be the measure of the American protection upon foreign products coming into competition with those of the Republic. The beauty of this definition is the latitude it allows in figuring out the cost of production, according to the ideas of the manufacturer of the home article, and the amount of "water" or wind in the capital stock upon which interest is to be reckoned. The making of a tariff in this way will afford perennial occupation for the statistical experts. The organized mercantile and manufacturing interests will be effectually put before the tariff-makers, but how about the case of the American farmer? Sir John A. Macdonald is credited with having once said that "The farmer was the most content and least troublesome of all classes. The farmer asked for anything, and he never got anything."

Moreover, in America, the farmer is for the most part a producer of products of which some considerable part is exported, and the price of which is accordingly regulated to a considerable extent by that of the exported surplus. For this reason, taken in conjunction with the lack of business organization to maintain prices, farmers can be to only a slight degree advantaged by protection on their lines of production, though compelled to pay artificially-enhanced prices on the "protected" goods that constitute their purchases.

Is it, therefore, not reasonable to suppose that the farmer will fare better under a moderate tariff policy than under extreme protection? In this connection, it is pleasing to note that Andrew Carnegie is quoted as pronouncing in favor of low tariff or free trade now in practically all lines except luxuries. The steel industry, he concedes, no longer needs protection. This is very generous of Mr. Carnegie. The only criticism of his position that might be offered is that he deferred advocating such a policy until he had built up under protection a bigger fortune than he knew what to do with.

FOOT - AND - MOUTH DISEASE.

After a period of comparative freedom from epidemics of serious bovine diseases, the livestock-breeding fraternity have been startled to learn, within the present calendar year, of two outbreaks of foot-and-mouth disease, first in Scotland, last February, and then in Pennsylvania and New York States, in November. The source and conveyance of the disease are difficult to determine, but, with the trained staffs of expert veterinarians which Departments of Agriculture in the leading countries now command, a disease which would formerly have run a devastating course, may be and commonly is corralled and stamped out with promptness and efficiency. One thing in favor of the officials in the present instance is that stockmen have a wholesome dread of foot-and-mouth disease, and seeing that their fears are not lulled by chronic familiarity, co-operation with the authorities is liable to be more hearty than in the case of less virulent and more common maladies.

The symptoms of foot-and-mouth disease vary greatly in different years, and under different climatic conditions. While it is virulently contagious, the vitality of the contagium varies very much, according as it is in a dry or moist condition, which accounts for the mild form in which it has appeared on a few occasions in Canada, and the brevity of its existence in this country, a few cases proving fatal here, while in Great Britain losses from this disease have frequently been very heavy. The disease occurs chiefly in cattle, sheep and pigs. Horses, dogs, cats and birds are

less frequently attacked, and in some instances human beings have been infected. The disease spreads as an epizootic, and may be carried and distributed by birds, or on the boots of men, on the feet of dogs, or in hay or straw on which infected animals have slavered or stood. The symptoms of the disease in its mild or ordinary form are manifested in cattle by the appearance of vesicles and ulcers on the mucous membranes of the mouth, and on the skin of the coronet of the feet. Sheep, goats and pigs are usually affected only on the feet. In cattle, after a period of incubation of from three to five days, there is a moderate rise of temperature (up to 40 degrees C.), which becomes normal as soon as the eruption appears. Appetite and secretion of milk become diminished, rumination is suppressed, the mouth is generally kept closed, and slight salivation takes place. After two or three days, yellowish-white vesicles, the size of hemp seed, appear on the lips, gums and mouth. These vesicles become enlarged and very sore, and at this stage there is a considerable amount of slavering. The course of the disease almost always ends in two to three weeks, and the mortality is from 0 to 1 per cent.

BEAUTIFY HOMES THROUGH PUBLIC SCHOOLS

Ontario's civic-improvement movement is most worthy of support. Ease of organization makes it possible to obtain most noticeable returns for energy expended in towns and cities. From these the good work, no doubt, would spread gradually to the surrounding rural districts. But this means of beautifying country homes is slow. Everything possible should be done, at reasonable cost, to interest the rural population in the beautification of home surroundings. Throughout Canada much remains to be done in this regard.

Visitors and prospective purchasers of land are influenced by the attractiveness or non-attractiveness of the homes in a locality. Those influences which affect a community have a similar effect on the country at large. In other words, if the homes of Canada's farmers were kept in a high state of repair, and brightened by the planting of trees and flowers, and the erection of neat fences where fences are necessary, much would be accomplished by way of increasing the rural population by the acquisition of desirable citizens from other countries, and also by the retention of our own upon the farms. The better class of newcomers, and those with capital, prefer to locate in a district that has ear-marks of progressiveness.

At best, civic improvement in rural Canada is destined to be tardy. Steps should be taken to make it thorough. In no way can this be done more successfully than by interesting the boys and girls. An important factor in the solution, then, must be a campaign through the public schools. Grown people realize the advisability of home-beautification, but only a small percentage of them can be induced to take steps to bring about that desirable condition.

Naturally, the most encouraging results would be secured where teachers were adepts in the art of home adornment. The summer courses for teachers, including nature study and kindred subjects, and the gradually-increasing attention paid to this work in Normal training, are doing much to augment the usefulness of teachers of rural schools in that regard. But there is not one teacher in a hundred who cannot follow directions concerning this laudable work, if such are prepared along moderate and practical lines. Furthermore, not one in one hundred would object to making this a feature of the weekly programme, or even to advising ratepayers throughout the

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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE

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section. Every true teacher delights in such work.

In several localities a start has been made. The Rittenhouse School, at Jordan Harbor, Ont., is perhaps as praiseworthy as any. The interest manifested there, both in the school grounds and in the home gardens, is an evidence of what would follow in every school section. Now that the horticultural instructors at Ontario Agricultural College have rearranged the course of studies so that more attention is to be given to landscape gardening and the culture of plants, flowers, shrubs and trees, it should be an easy matter to get in touch with public-school teachers and trustee boards. The latter should see that nothing is left undone that will insure such campaign in all parts of the country.

BUSINESS OUTLOOK BRIGHTENING.

According to the October Bank Statement, issued from Ottawa, deposits in Canada increased during the month to the extent of \$11,362,879, while business absorbed, by way of current and call loans, only \$3,322,014 more than during the previous month. The increase in the deposits would appear to signify that the Canadian people have heeded the advice to practice thrift. It also indicates a gratifying improvement in the business outlook, and presages a period of renewed industrial activity. Indeed, where the banks were contracting credits, they now seem inclined to encourage legitimate investment. With good crops in the Canadian West, as well as a very fair harvest over the rest of the country, and with the elections over both in Canada and the United States, the commercial horizon is steadily brightening, and there is every indication that the threatened storm of commercial distress has turned out to be only a passing squall. Hope and confidence, tempered slightly with prudence, is the order of the day.

NATIONAL AND COMPREHENSIVE IN SCOPE.

Anticipation whets enjoyment. Readers generally will be interested to learn that prominent among the features secured for our coming Christmas Number, to be published December 10th, is an article on "The Farmer's Interest in Forestry," by Dr. B. E. Fernow, the eminent Dean of the Faculty of Forestry in the University of Toronto. Dr. Fernow presents a masterly survey of the timber and forestry situation in Canada, from the standpoint of the farmer as a citizen, and also sets forth strong reasons for individual effort at reforestation, particularly of the waste lands on the farm. J. H. Grisdale, Agriculturist, of the Central Experimental Farm, Ottawa, deals well and comprehensively with the outlook for the beef industry in Canada; and our expert horse writer, "Whip," discusses entertainingly the place of the horse in history; while the services of a select staff of most capable correspondents have been enlisted to good purpose in covering the various other phases of agricultural effort which come within scope of "The Farmer's Advocate and Home Magazine." The Home Magazine will contain features of exceptional interest, including the opening instalment of a new serial, "The Golden Dog." No pains have been spared to insure the highest standard of illustration and letterpress, and, taken all together, our readers may anticipate a treat of excellent reading and journalistic art.

PRICE OF THE CHRISTMAS NUMBER.

The splendid Christmas Number, to be issued next week, goes free of charge to every regular subscriber. To non-subscribers, the price of this Number alone is 50 cents per copy. Subscribers who wish to send extra copies as presents to their friends, may order them sent, postpaid, at just half the above price, viz., 25 cents.

WEAKNESS OF THE COW-TESTING ASSOCIATIONS.

A vital suggestion is offered in the Dairy Department of "The Farmer's Advocate" this week by Dr. Robertson, of Halton Co., Ont., who notes with concern a decrease in the membership of the Cow-testing Association in his community, where an increase had been confidently expected. If other cow-testing associations are as little appreciated by the dairymen as theirs, he suggests that we should inquire into the reasons and seek out a remedy. That Dr. Robertson appreciates the importance of cow-testing is shown by the tenor of his letter, and corroborated by the fact that in the large dairy in which he is interested they have kept daily records for four or five years, though belonging to the Cow-testing Association as well.

Now, here is where our correspondent puts his finger on a serious weakness of the cow-testing movement as organized in Canada:

"We find every caretaker, every milker and every feeder in our dairy interested in the daily records, but quite indifferent to those taken three times a month." He rightly considers that "the desired results of all the efforts and all the assistance of the Department of Agriculture should be: First, the keeping of records by the dairyman himself; second, the weeding out of his herd. The first will surely bring the second. This being taken care of by the association does not seem to encourage personal responsibility. The member does not realize that it is his own work and his own business. Until he keeps a daily record he is not sufficiently interested in his own cows. As soon as he does this he sees new light. He watches the scales morning and evening, and will do his best to keep up the flow of milk day after day."

This is supreme truth. Weighing the milk of a herd three times a month is better than not

weighing at all. If faithfully followed it may give a fairly good idea of the relative value of the cows in the herd, but as a means of getting a dairyman interested in the cow question it is not to be compared to daily records. Daily weighing enables and directly stimulates the dairyman to make more out of the cows he already has; weighing three days a month does not, except to a comparatively slight degree. Daily records keep the dairyman's attention steadily focussed upon his herd; weighing three times a month does not. Daily weighing makes for continuity of effort, and generally leads to permanent results; intermittent weighing is liable to be neglected and sooner or later discontinued.

Then as to lack of self-reliance. The cow-testing association is all right as a beginning, but the prime effort should be to get the dairyman sufficiently interested to weigh each cow's milk at every milking. So far as Babcock testing is concerned, co-operation is a decided convenience, but the co-operators must be brought to realize that they are not merely co-operating to be helped, but co-operating to help themselves.

MODERATE AND LOGICAL.

I must express my appreciation of the stand "The Farmer's Advocate" has taken on national questions affecting the farmers during the past year or two. Your paper has been moderate and logical, and yet courageous, on these matters, and cannot fail to have a good effect.

E. C. DRURY.

HORSES.

CRACKED OR CHAPPED HEELS AND MUD FEVER IN HORSES.

The causes of mud fever and cracked heels are so similar, and, indeed, they are so frequently present at the same time in the same animal, that most of the remarks re prevention of the one are also applicable to the other.

Clipping the limbs, especially the hind limbs, renders them very susceptible to an attack of mud fever, and this susceptibility is increased if the practice of washing off dirt immediately on coming in from a journey is followed by the persons in charge, and it is a well-known fact that the dirt in some districts is much more liable to produce the disease than that in others. This is doubtless owing to its tenacious character and irritating properties.

Cold winds, and particularly draughts, acting on limbs and the under surface of the abdomen, when mud is splashed during progression, prove very great factors in inducing mud fever and cracked heels, and cold, hard water aggravates the irritating effects of both cold wind and mud much more than soft water.

To prevent mud fever and cracked heels, in addition to leaving the hair on the parts likely to be affected, which, as has already been mentioned, is one of the most effectual preventives of these troubles, care should be taken never to allow an animal to stand in a cold wind or draught from the bottom of a door, etc., when his legs are wet and he has been heated by violent exercise, such as on a return from a journey at a fast pace. Whenever a horse comes in with his legs so dirty that its removal is necessary for the comfort of the animal, either a rubbing down with dry cloths, to clear off as much as possible without wetting, and allowing the remainder to dry on until it can be brushed off, or washing off with water, preferably soft, and then thoroughly drying, should be resorted to, and the precautions taken not to allow the limbs to be exposed to a draught, as already mentioned.

It is the alternate chill and irritation acting on the skin when in a heated or congested state from exertion that produces both mud fever and cracked heels; thus, when a horse is splashing himself with mud while travelling, the wet mud sets up a certain amount of irritation (some kinds of mud being much more irritating to the skin when damp than others, hence the prevalence of mud fever and cracked heels in certain districts), the parts soon become partially dry and heated, then a fresh lot of wet or mud, or both, is splashed on, which suddenly chills the skin, to again become partially dry, and again chilled, until the horse eventually arrives home; and then, if the mud is washed off with cold water, the legs, etc., are thoroughly chilled temporarily, after which there is a reaction, corresponding to the "glow" one feels after a cold bath, and the parts are just in a condition to be seriously affected by a cold draught.

When, by reason of the large amount of dirt, or other circumstances, it is almost imperative

that the legs should be washed on returning from a journey, in districts where mud fever is prevalent, washing with "bran water"—that is, water in which some grist bran has been steeped—instead of plain water, followed by carefully drying and bandaging the legs, very considerably lessens the risk of an attack of both mud fever and cracked heels.—[Correspondent in Agricultural Gazette.]

DAVID RIDDELL.

The unique tribute paid in the presentation to Mr. D. Riddell, recently, says the Scottish Farmer, marks an important stage in the history of Clydesdale breeding in Scotland. For well-nigh 60 years Mr. Riddell has been a conspicuous figure in the Clydesdale world. For the first half of that period and more, he was easily the leading man among owners of Clydesdale entire horses. Beginning with the exhibition of Champion (126) at the Highland and Agricultural Society's Show, at Inverness, in 1856, it may safely be said that, up to a few years ago, his name was never absent from the catalogue of the national society. His career as an owner of entires was, for many years, associated in a marked degree with horses of the Sir Walter Scott (797) race, to which Champion—named already—belonged. After Champion, he owned, in succession, his sire, Old Clyde (574); his son, Sir Walter Scott (797); his son, General (322); his son, Prince of Wales (673), and an almost countless army of his sons. He also owned several of another race of descendants—Sir Walter Scott (797), the most notable member of which race was the celebrated Time o' Day (875); his son, Bonnie Breastknot (108), with which he took the Glasgow prize in 1879; and quite a number otherwise related to him.

But, while the race of horses bred by the late Mr. George Scott at the Barr, Largs, gave Mr. Riddell his first offset as a Clydesdale stallion-owner, his name is more surely engraven on Clydesdale history through his ownership of the world-famed Darnley (222), which he purchased from the late Sir Wm. Stirling Maxwell, of Keir, Bart., through his life-long friend, the late Alexander Young, who was so long a factor on the Keir and Cawder estates. The history of Darnley is the history of the modern Clydesdale. When he passed into Mr. Riddell's hands, a three-year-old off, in 1875, or early in 1876, he was not the type that men had for long been setting store by in the Clydesdale world. But he was the type that eventually came to rule that world, and to-day the Clydesdale in his best estate is Darnley. That this is not a false reading of history is evidenced by the fact that Darnley was twice beaten in show-yards south of the Border, and yet the story of these defeats only awakens a smile to-day. It was a clear indication that the new and the old were at variance with Gleniffer (361) and Druid (1120) were considered by some judges worthy to beat Darnley. To those who remember the type of both horses, these defeats appear now to have been admirable fooling. They are, however, notable in an historical sense, as showing how the worthy in an historical sense, as showing how the breed-type was modified. Darnley was the quality horse, with ideal feet and pasterns. Gleniffer and Druid had big bones, round rather than flat, and in respect of length and set of pasterns they had nothing to give away. To David Riddell undoubtedly belongs in no small degree the credit of setting the new type of Clydesdale, the type of which Darnley and his whole wonderful race are the outstanding illustrations.

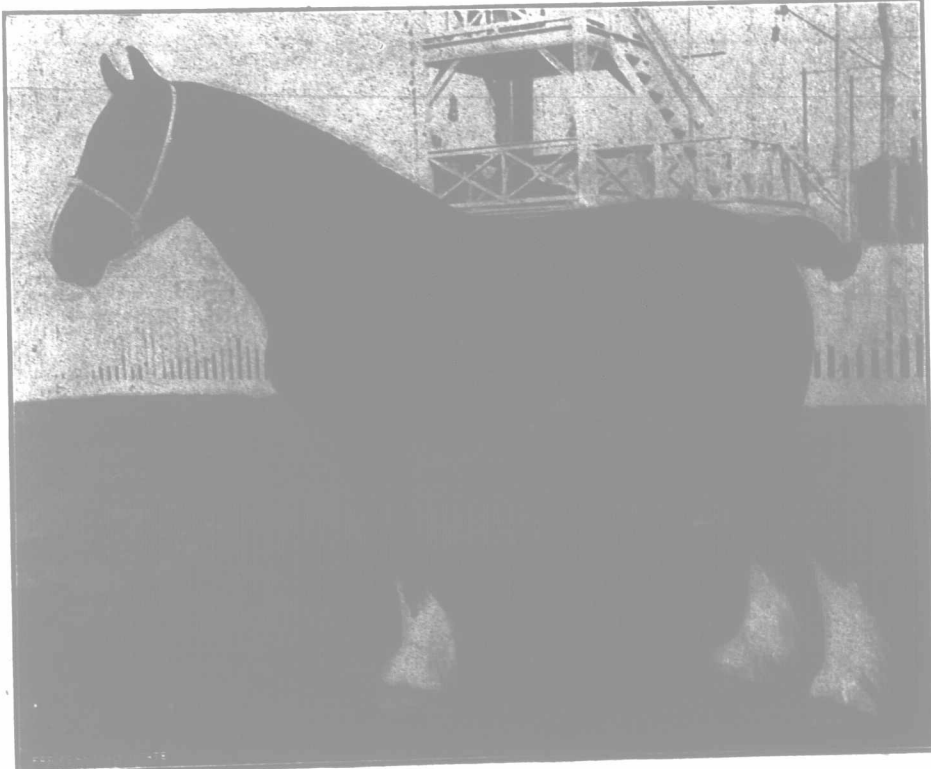
The use of sawdust above the knees of Shire horses at English shows has been stopped by the Shire Horse Society. In future, "the use of rosin, soap, sawdust above the knee, or any other substances designed to give an artificial appearance, etc., etc., will act as a disqualification." It has also been decided to notify exhibitors at the London Show that two inspectors will be appointed to examine all horses before entering the judging-ring.

SWAMP FEVER.

Swamp fever is characterized by a progressive, pernicious anemia, remittent fever, polyuria, and gradual emaciation, in spite of a voracious appetite. The disease begins to manifest itself by a dull, listless appearance, and by general weakness, the animal tiring very easily. This stage is followed closely by a staggering, swaying, uncertain gait, the hind limbs being mostly affected. There is also noted a weakness and tenderness in the region of the loins, and at the same time the pulse increases rapidly, and may run as high as seventy.

The temperature may rise to one hundred and three (103) degrees, or higher, remaining high for several days and then dropping, to rise again at irregular intervals. Towards the end of the disease the temperature occasionally remains persistently high. The horse may improve for a time, but this temporary improvement is followed by a more severe attack than the first. Venous regurgitation is sometimes noticed in the jugular before death. The quantity of urine passed is enormous in some cases. Death finally occurs from exhaustion or syncope.

If the blood is drawn from such an animal, the resulting red clot will be about one-fifth of the amount drawn. Occasionally, a slow dripping of blood-tinged serum from the nostrils is observed as a result of this very thin blood oozing from the mucous membranes. Often a fluctuating, pendu-



Thorncliffe Duchess 2nd.

Clydesdale mare; bay; foaled 1903. Winner of first and grand championship, Canadian National Exhibition, Toronto, and Western Fair, London, 1908. Owners, Graham-Renfrew Co., Bedford Park, Ont. Sire Lyon Macgregor.

lous swelling may appear on the lower lip, point of elbow, sheath, legs, under the belly, on some other pendant portion, especially late in the disease, which is indicative of poor circulation, thinning of the blood, and consequent loss of capillary action.

After death, the carcass is found to be very emaciated and anæmic, the visible mucosai being very pale. This marked absence of adipose tissue makes skinning a difficult task. Subcutaneous and intermuscular edema and hemorrhages are frequently observed, although it is remarkable, in many cases, to see how few macroscopic lesions may be present. The predominating and most constant lesion is probably the petechia, so often observed in the muscles or on the serous membranes of the heart. The heart is generally enlarged, and may be the only organ to show evidence of disease. In other cases the lungs may be studded with petechiae, with a serous exudate present in the thoracic cavity. The liver is generally normal. Kidneys may appear normal or anæmic. Lymph glands may be enlarged and hemorrhagic.

The diagnosis of the disease is not difficult, especially in advanced stages. The insidious onset, remittent fever, progressive emaciation and anæmia, unimpaired or ravenous appetite, staggering gait, and polyuria, form a train of symptoms which make the disease sufficiently characteristic to differentiate it from other diseases affecting horses in this country.

The prognosis of the disease is very unfavorable. Veterinarians in different sections of the country where the disease is prevalent claim a mortality of seventy-five per cent., or even higher. Recovery only takes place when treatment is begun early, or when the animal has a long convalescent period.

Treatment has, so far, been far from satisfactory. The iodide, permanganate and carbonate of potash have been used. Arsenic, axytol, quinine and silver preparations have been suggested, but all have been without uniform success. Intestinal antiseptics have been resorted to, and the results are encouraging, but not altogether satisfactory. Symptomatic treatment seems to be the most dependable. For instance, Dr. Davison was able to reduce greatly the mortality from this affection by giving an antipyretic of forty (40) grains of quinine, two (2) drams of acetanilid, and thirty (30) grains of powdered nux vomica four times daily. In the late stages, with weak heart action, alcohol should be substituted for acetanilid. Cold-water sponge baths may be given, and, in addition, frequent copious injections of cold water per rectum, which has a beneficial effect in reducing the temperature, and likewise in stimulating peristalsis of the bowels, which, as a result of the disease, show a tendency to become torpid during the fever. Avoid giving purgatives unless absolutely necessary, on account of their debilitating effect; but, instead, give laxative, easily-digestible foods. Not infrequently a dirty, yellowish tinge of the visible mucous membranes has been observed, in which case, twenty (20) grains of calomel in from two to four (2 to 4) drams of aloes, in a ball of two-dram (2) doses of fluidextract of podophyllin may be given. Following the subsidence of the fever a tonic was administered, composed of iron, quinine, nux vomica and gentian, in combination—[J. R. Mohler, U. S. Department of Agriculture, at the Inter-State Association of Live-stock Sanitary Boards, Washington, D. C.]

TO EXAMINE A SICK HORSE.

According to Dr. David Roberts, Wisconsin State Veterinarian, the proper way to examine a sick horse is:

First, take the temperature of the animal by placing a fever thermometer into the rectum, allowing it to remain there from three to five minutes. The normal temperature of a cow is 101 degrees (Fahrenheit). The normal temperature of a horse is 100 degrees; sheep, 101 degrees.

Second, take the pulse of the animal, which can be found at the angle of the lower jaw bone. The normal beats of a cow's pulse are from 40 to 50 per minute, and that of a horse from 38 to 40 per minute.

Third, count the respiration of the animal, or number of times it breathes, by watching the sides of flanks, or by pressing the ear to the side. The normal respiration of the cow is from 15 to 20 per minute, and that of a horse from 12 to 15 per minute, while resting. If the temperature, pulse or respirations are found to be higher or faster than above described, you will know that the animal is ailing.

LIVE STOCK.

A HOG-FEEDING ACCOUNT.

A Prince Edward County feeder writes: "I figure that I lost about \$5 on my last lot of seven hogs. When finished and delivered at six months old, they weighed nearly 160 pounds average, and sold for \$5.85. When weaned, I valued them at \$2 each, and valued the corn fed them in the ear at 25 cents per bushel, other stuff at current prices, and threw my labor in, or took the manure for it. With the cured meat selling from the corner store at 18 cents per pound, I fancy the packer must be getting a better dividend than I am."

[Note.—Have any other readers of "The Farmer's Advocate" been figuring out their returns from hog-feeding lately? What was the result? It will do good to let others have the benefit of the experience, with itemized statement of the feeding outlay.—Editor.]

WHAT TO GIVE FOR A CHRISTMAS PRESENT.

No better Christmas present can be made to a friend than a year's subscription to "The Farmer's Advocate." It will prove not only a holiday remembrance, but a constant help and pleasure throughout the year. The Christmas Number, which will be included with each new yearly subscription while the supply lasts, is alone worth half the money. Order now, and have the new subscription commence with the Christmas Number.

LEGISLATION AGAINST DOGS TO AID SHEEP INDUSTRY.

Departments of Agriculture in the various Provinces of Canada, realizing the importance of the sheep industry, have placed on the statutes laws that tend to work in the interests of those farmers who wish to raise sheep. Since losses caused by dogs in killing, wounding and worrying are, admittedly, the most serious drawback to this desirable industry, legislation has in most cases been directed toward the control of the dog nuisance.

ONTARIO LAWS REGARDING SHEEP AND DOGS.

Legislation in Ontario protects owners of sheep as follows:

"Any person may kill—

- (a) Any dog which he sees pursuing, worrying or wounding any sheep or lamb; or
- (b) Any dog, without lawful permission, in any enclosed field on any farm which the owner or occupant thereof, or his servant, finds giving tongue and terrifying any sheep or lamb on such farm; or
- (c) Any dog which any person finds straying between sunset and sunrise on any farm whereon any sheep or lambs are kept;

"But no dog so straying which belongs to or is kept or harbored by the occupant of any premises next adjoining the said farm, or next adjoining that part of any highway or lane which abuts on said farm; nor any dog so straying, either when securely muzzled or when accompanied by or being within reasonable call or control of any person owning or possessing or having the charge or care of said dog, shall be so killed unless there is reasonable apprehension that such dog, if not killed, is likely to pursue, worry, wound or terrify sheep or lambs then on the said farm."

In case of worry, injury or death by dogs, complaint must be made in writing, on oath before a justice of the peace, within six months, and a date and place will be set to deal with the matter according to law. Regarding conviction the law says:

"In case any person is convicted on the oath of a credible witness, of owning or having in his possession a dog which has worried or injured or destroyed any sheep or lamb, the Justice of the Peace may make an order for the killing of such dog (describing the same according to the tenor of the description given in the complaint and in the evidence) within three days, and in default thereof may, in his discretion, impose a fine upon such person not exceeding \$20 with costs, and all penalties imposed under this section shall be applied to the use of the municipality in which the defendant resides."

Several clauses are inserted in the Act explaining details in connection with recovery of damages. The most important of these are:

"(1) The owner of any sheep or lamb killed or injured by any dog shall be entitled to recover the damage occasioned thereby from the owner or keeper of such dog, by an action for damages, or by summary proceedings before a Justice of the Peace, on information or complaint before such justice, who is hereby authorized to hear and determine such complaint, and proceed thereon in the manner provided by the Ontario Summary Convictions Act, in respect to proceedings therein mentioned; and such aggrieved party shall be entitled so to recover in such action or proceedings, whether the owner or keeper of such dog knew or did not know that it was vicious or accustomed to worry sheep.

"(2) If it appears to the court or judge at the trial of any such action for damages, or to such justice at the hearing of the said information or complaint before him, that the damage or some part of the damage sustained by such aggrieved party was the joint act of some other dog or dogs, and of the dog or dogs owned or kept by the person charged in such information or complaint, the court, judge or justice shall have power so to decide, and to apportion the damages sustained by the complainant, among and against the respective owners or keepers of the said dogs, as far as such owners or keepers are known, in such shares and proportions as such court, judge or justice thinks fit, and to award the same by the judgment of the said court or judge, or in the conviction of such justice on behalf of such aggrieved person.

"(3) When in the opinion of the court, judge or justice, the damages were occasioned by dogs the owner or owners of which are known, and dogs the owner or owners of which are unknown, or the owner or owners of which have not been summoned to appear before the court, judge or justice, the court, judge or justice may decide and adjudge as to the proportion of the damages which, having regard to the evidence adduced as to the strength, ferocity and character of the various dogs shown to have been engaged in committing such damage, was probably done by the dogs the owner or owners of which have been summoned to appear before the court, judge or justice, and shall determine in respect thereof and appor-

tion the damages which the court, judge or justice decides to have been probably done by the dogs whose owners have been summoned, amongst the various owners who have been summoned as aforesaid.

"(4) The same proceedings shall thereupon be had against any person found by the court, judge or justice to be the owner or keeper of the dogs which by such court, judge or justice, are found to have contributed to the damage sustained by the person aggrieved, as if the information or complaint had been laid in the first instance against such person."

Owners of dogs that do injury to sheep and lambs also are required to kill the dogs within forty-eight hours after notice is given, and if one neglects to do so must forfeit \$2.50 for each dog, and \$1.25 for each such dog for every 48 hours thereafter until killed, unless it can be proven that it was not within the power of the owner or keeper to kill such dog or dogs.

By way of guarantee to the sheep-owner, the law states:

"In case the owner of any sheep or lamb so killed or injured proceeds against the owner or keeper of the dog that committed the injury, before a justice of the peace, as provided by this Act, and is unable on the conviction of the offender to levy the amount ordered to be paid, for want of sufficient distress to levy the same, then the council of the municipality in which the offender resided at the time of the injury shall order their treasurer to pay to the aggrieved party two-thirds of the amount ordered to be paid by the justice under the conviction, in addition to the costs of the proceedings before the justice and before the council."

Suggestions have been made that a change in the clause be made so that it read that the

injured while running at large upon any highway or unenclosed land, shall have no claim under this Act to obtain compensation from any municipality."

Additional protection is afforded by a tax on dogs, levied annually, one dollar for each dog and two dollars for each bitch, except in the case of kennels of pure-breds, where a maximum tax of \$10 may be levied. This tax, however, may be cancelled by by-law, in whole or in part, on petition of twenty-five ratepayers. Municipalities may pass by-laws by which money collected can be subject to disposition the same as local taxes, and not be used for reimbursing sheep-owners. This has been considered an injustice.

QUEBEC LEGISLATION.

Vol. II., Revised Statutes, in the Province of Quebec, dealing with vicious dogs, contains the following clauses:

"1. Any justice of the peace, upon a complaint made to him that a dog is vicious, or supposed to be attacked by hydrophobia, or is in the habit of attacking persons, or animals at large or in harness, without the limits of its master's property, may, after hearing the parties in a summary manner, and if convinced that the complaint is well founded, condemn the proprietor or possessor of such dog to cause it to be confined for a period of forty days, or may order such dog to be killed, with costs against such owner or possessor.

"2. If the owner or possessor of such dog permit it to go at large, or fail to kill it, in contravention of the order of the justice, such owner or possessor shall incur a penalty of not more than one dollar per diem.

"3. If it be proved that the dog has bitten any person outside the limits of its master's property, and that the dog is vicious, the justice of the peace shall condemn the owner or possessor to kill it.

"4. It shall, nevertheless, be lawful to kill any dog which, without the limits of its master's property, pursues, or is known to pursue or strangle sheep, or to make a complaint to a justice of the peace, who shall condemn the owner to kill such dog and to pay the costs, upon the testimony of one credible person, without prejudice to any claim for damages caused by the loss of the sheep."

The municipal code provides that every local council may further make, amend or repeal by-laws for each of the objects mentioned.

"To order dogs to be kept muzzled or tied up; to prevent them from being at large without their masters or other persons to take charge of them; to impose a tax, not exceeding ten dollars, on the owners of every dog kept in the municipality; and to authorize any municipal officer or other person to destroy, by poison or otherwise, all dogs found at large, contrary to municipal regulations.

"The penalty imposed for any contravention of the by-laws made under this article may be recovered, except in so far as respects the tax, from persons residing outside the municipality, whose dogs are found in contravention of such by-laws."

DOG TAX IN NEW BRUNSWICK.

In New Brunswick an Act has been passed to impose a tax on dogs, and to serve as a protection for sheep. The clause reads:

"There shall be levied annually in every municipality upon the owner, possessor or harbinger of each dog therein, a tax of one dollar for a dog and five dollars for a bitch."

This can be amended by by-law if fifteen ratepayers, or householders, in each and every parish of a municipality outside of the limits of any city or incorporated town, send a petition, but no more than one dog can be so owned, possessed or harbored without being subject to tax. The money collected by such tax is supposed to be used to satisfy such damages as arise from dogs killing or injuring sheep or lambs, as in the case of the Ontario law.

As a further protection from dogs, the law is similar to that in force in Ontario. It reads:

"Any person may kill (a) any dog which he



Gold Cup (imp.) =50038= (86064).

Shorthorn bull; roan; calved April, 1903. Bred by Wm. Duthie, Collynie, Aberdeenshire. Owned by Sir George Drummond, Beaconsfield, Que. Sire Nonpareil Courtier, dam Golden Ray 3rd.

treasurer shall pay "not less than" two-thirds of the value of the animals destroyed. This would leave it in the discretion of the officials as to whether or not the full value be paid. Townships are privileged to pass special by-laws. In one township sheep inspectors are appointed to decide on a proper valuation, and the result has been satisfactory to all concerned.

The following clause has been recommended for insertion in the Act to cover the point:

"The council of each township, town or village, shall at their first meeting each year appoint one or more competent persons, to be known as sheep inspectors, whose duty it shall be to inspect the injury done to sheep by dogs in cases where the owner or keeper of the dog or dogs committing the injury cannot be found, and the aggrieved party intends to make claim for compensation from the council of the municipality. Said appointee shall investigate the injury within 48 hours after the notice is given to him, and forthwith make his report in writing to the Clerk of the Council as early as possible after the investigation, giving in detail the extent of injuries and amount of damage done. This report shall be used by the council as evidence in adjusting the claim."

It has also been recommended that owners of sheep or lambs must claim compensation in person, or in writing, before the sheep inspector, within 48 hours after the injury is committed.

Sheep running at large are not protected, as can be seen from the following clause:

"The owner of any sheep or lamb killed or

sees pursuing, worrying or wounding any sheep or lamb; or (b) any dog giving tongue and terrifying any sheep or lamb on any farm; or (c) any dog which any person finds straying between sunset and sunrise on any farm whereon sheep are kept. Provided, always, that no dog so straying, and which belongs to or is kept or harbored by the occupant of any premises next adjoining the said farm, or next adjoining that part of any highway or lane which abuts on said farm; nor any dog so straying, either when securely muzzled or accompanied by or being within reasonable call or control of any person owning or possessing or having the charge or care of said dog, shall be so killed unless there is reasonable apprehension that such dog if not killed is likely to pursue, worry, wound or terrify sheep or lambs then on said farm."

PROTECTION IN NOVA SCOTIA.

The protective measures in Nova Scotia are similar to those of Ontario. The essentials of The Sheep Protection Act are:

1. A person may shoot any dog which he sees (a) worrying sheep or lambs; (b) giving tongue or terrifying sheep or lambs; (c) straying between sunset and sunrise on a farm where sheep or lambs are kept, unless the dog belongs to the neighbor whose property adjoins.

2. In the case of sheep destroyed by dogs, the owner can, by redress to common law, obtain the value of the sheep if he can prove the owner of the dog that did the damage.

Increased prices for sheep and their products in recent years, and a more general recognition of the adaptability of Nova Scotia for sheep-raising, developed a growing sentiment in favor of further legislation. A bill introduced into the House of Assembly and given two readings, by which the Sheep Protection Act was to be amended, stipulated that: (1) All municipalities should impose a tax of not less than \$1.00 on dogs and \$2.00 on bitches. (2) Taxes so collected to constitute a separate fund, from which losses are to be paid to owners of sheep destroyed by dogs, the owners or harborers of which are not known. (3) A statement as to the legal procedure necessary to secure this indemnity. (4) Incorporated cities and towns to pay 15% of the total dog tax collected into the common municipal fund for above purposes. (5) This law to apply to the whole Province, but subject to be voted down for a period of one year in any municipality by the municipal council, the law to come automatically into force the following year, unless again rendered inoperative by a vote of the municipal council. Lack of knowledge of the feeling of the people resulted in the bill being given an indefinite hoist.

The Municipal Act of Nova Scotia allows a municipality to impose a tax on dogs, and to collect such tax as part of the ordinary revenue of the municipality. One municipality passed a law imposing a \$1.00 tax on dogs, and the report is that the results have been very satisfactory, so far as reduction of the number of dogs is concerned. However, there has not been a corresponding increase in the number of sheep. A partial reason for this, apart from general considerations, may lie in the fact that wild animals are often a more serious menace to sheep than are dogs.

NO LEGISLATION IN P. E. ISLAND.

Sheep-owners are in no way protected from dogs in Prince Edward Island. No legislation is in force dealing with the sheep and dog question.

PARASITIC DISEASES OF SHEEP.

There is no doubt but what parasitic diseases of sheep have done much to discourage this very profitable industry. It is hardly probable that any sheep-grower can go on for any great length of time without encountering losses from some of them, unless he makes intelligent use of the necessary preventive measures. The man who goes blindly into the sheep-raising business and fails to guard his flock against infestation by the various parasites is almost certainly foredoomed to disappointment, and, in many cases, rank failure. Sheep have been considered delicate animals. This may be true to some extent, but the reason that they are considered so is largely due to the fact that they are exposed to so many diseases. If that they are exposed to the same number of enemies, any other animal might be considered delicate. Altogether, sheep have sufficient vitality to make their raising very profitable if reasonable intelligence and forethought is used in guarding them against diseases. It is not, as a rule, either prudent or profitable to practice the promiscuous feeding of live stock with condition powders and patent preventive medicines. In a majority of cases, too much is paid for these products; they are used when not necessary, and are not used intelligently. But sheep must be guarded against disease more closely than any other animal, and in order to keep sheep free from the mal, and in order to keep sheep free from parasitic diseases, it is often necessary to resort to the use of preventive medicines. When used, however, they should be used with a definite object in view, and with system and regularity.

By way of general care of sheep, they need well-ventilated or open-sided shelter in falling weather. They do not need shelter in dry weather, no matter how cold. They should never be crowded into and shut up in a close barn. They need the shade of trees and bushes in hot weather. They ought to have running water. That from a well or cistern in a clean tank is very good. Pond water is objectionable, especially when any disease is present. The pastures ought to be rolling, or, at least, well drained.

As to the use of remedies, whenever there is any sign of scab or sheep ticks in the flock, all the sheep and lambs ought to be dipped twice at intervals of 10 days in some reliable sheep dip. From the time there is any indication of annoyance by the bot fly, their noses ought to be kept smeared with tar until after light frosts. Sheep ought to have a course of treatment through the winter to rid them of the internal parasites. This is especially true when there is any indication that any of these parasites are present. It is probably advisable for every sheepman to give his flock, during the winter and spring, a course of finely-powdered tobacco, or the bluestone-copperas-salt mixture. Of the tobacco he should use about 20 pounds for each 100 sheep, and begin giving it, in small amounts at first, with the feed late in the fall, and continue until after lambing is over. The bluestone-copperas-salt mixture, advised for the prevention of stomach worms, may be used instead of tobacco. It can be kept before the sheep, allowing them what they will eat. These directions, carefully followed out, will almost certainly protect the sheep owner from the common losses, and render it unnecessary for him to make a detailed study of the different parasites to which the flock is liable.—(Missouri State Bulletin.

stuffs comprised about 50 of the most dangerous weed seeds found in the State.

The above conclusions, however, would be misleading and unfortunate if unaccompanied by the reminder that serious waste of fertility results from the decomposition of manure. Roughly speaking, it may be said that experiments have shown that it requires two loads of fresh manure to make one load of rotted, and, for most purposes a load of rotted is worth little if any more than a load of fresh. The true policy is, therefore, so to arrange the system of farming that most if not all the manure may be applied in a fresh state to land intended for corn and other such crops, the cultivation of which will incidentally destroy the seedling weeds.

COLOR IN BLACK OATS.

Owing to the higher price in Ireland for jet-black seed of the Black Tartarian variety of oats than for seed which is brown or mahogany, and to the prevailing opinion that color of product depends on color of seed, rather than on soil or climatic conditions, the Department of Agriculture conducted experiments along this line during the past two seasons at their Agricultural Stations at Ballyhaise, County Cavan, and Conakilly, County Cork—five experiments in all. In each test, a quantity of the best-colored seed of Black Tartarian oats procurable was purchased, and also a similar quantity of light-brown-colored seed. These two samples, differing as widely as possible as to color, were sown side by side under similar conditions of soil and cultivation. In some cases both lots of seed were purchased in Scotland, and in other instances both were bought in Ireland. The plots were harvested in the usual way, and

without exemption, in every experiment, the produce from both lots of seed was almost identical in color, and of equal value.

This result is taken to indicate that the importance of good color in the seed of black oats may be exaggerated, and that the color in black oats depends far more upon the soil, climate and local conditions than upon the color of the seed sown. It is generally believed in Ireland that heavy, cold soils will produce blacker oats than warm, sandy soils, and that a better color is obtained when black oats are sown after potatoes or roots, than after grass.



Home of J. H. M. Parker, Sherbrooke Co., Que.

THE FARM.

VITALITY OF SEEDS IN MANURE.

Experiments conducted to ascertain the vitality of weed seeds after passing through the digestive tract of an animal, led E. I. Oswald, of Maryland Agricultural Experiment Station, to report as follows:

In experiments in which the manure remained (1) for six months in a barnyard heap, and (2) for a short while in piles, it was found that in the first case there was no danger, and in the second case little danger of distributing germinable weed seeds. In the experiments in which the weed seeds were fed to yearling steers, and the manure handled in various ways, it was found that:

1. When the manure was hauled directly from the stable as a top-dressing, an average of only 12.8 per cent. of the seed fed to animals germinated.

2. Where the manure was hauled directly from the stable upon the land, and plowed under, 2.3 per cent of the seeds fed to animals came up.

3. Where the droppings remained on the pasture fields, unadulterated as they fell, an average of only 3.1 per cent. of the seeds fed to animals germinated.

The results indicate that, in general, it is safe to assume that the vitality of weed seeds is destroyed in well-rotted manure, but that many pass unharmed through the digestive tracts of animals, and may be carried to the land if the manure is not well rotted before use. The feeding

While this experiment might be regarded as conclusive, the Department advises those whose custom it is to pay high prices for color in black oats to make trials on their own land with good and bad colored black seed. In buying seed oats, purity, germination and maturity of grain are mentioned as factors to which every attention should be given.

ON BEHALF OF THE SPARROW.

Editor "The Farmer's Advocate":

Though it has been said "we are all born savages," never did I think to find a correspondent of "The Farmer's Advocate" enforce and endorse such an academic involvement of savage cruelty to our hardy, homely, imported, twittering sparrows, even to a bestowment of public honors and school adornments by robbery, a la Indian wigwam, all because they must thrive to live through our arctic winters. They do have little that get the good of it all; sure it's better to get the blessing with the rest, and never miss't, as Poet Robbie rhymed it. My earliest and nearest-heaven recollections are of lying awake in the summer mornings, to look out at my nearly ivy-covered window to see them and hear their most deafening chorus. Why, it's little more than a score years since we hailed their arrival in Montreal, and their adaptability to new circumstances and conditions. Surely we can rise above the "daimen icker" in our thraves. A youngster (sure fit to be a colonel in the new brigade) got into the barnyard, and was doing a bit of polite swearing, as them sparrows would not rest to be shot at, when the chickens' owner, with dog, appeared on the scene, and made as

little rest for him till he reached the highway. I hope your reader constituency will all do likewise.

Bruce Co., Ont.

JNO. SIMS.

WOMEN UNDERTAKE TO ERADICATE RAGWORT.

In Nova Scotia, the East Pictou Council of Women have for two seasons waged war against ragwort (the weed which, being eaten by cattle in a dry state, causes Pictou Cattle Disease), by means of prizes to children for pulling the weed. Much already has been done, and were it not for apathy on the part of many farmers, it is claimed the results would have been much more encouraging.

In the summer of 1907, between three and four millions of the weeds were picked and burned. The highest prize was won by a boy who collected 179,000 stalks. In 1908 the same boy was able to find only 82,000, and claimed that the weed was not nearly so abundant in his locality. The prizes were given for the largest collection, and for the best average in the school. In 1908 a change was made, allowing five cents for every thousand weeds, and awarding special prizes to the five who headed the list. This is said to be the most feasible plan. The first prize was won on a total of 110,000 weeds. Two millions were destroyed by 39 children, at a cost of slightly over \$100.

Writing to "The Farmer's Advocate, the president states: "Every worker got something, and we hope for much better results next year. A small brigade of boys is formed in a section, and they make excursions with sickles, determined to eradicate the weed from their locality. The extermination of ragwort from Pictou County is a big undertaking, but the Women's Council, having put their hand to the plow, are resolved, if possible, to push it on to success."

SIMCOE COUNTY FARMSTEAD.

Up-to-date farming means fine homes, and, as a general rule, fine homes are found where modern methods are adopted in farming operations, and where brains are used in connection with the work. On the farm of T. W. R. Arnold, of Simcoe County, the general appearance of buildings and surroundings would seem to indicate that energies have not been directed towards swelling the bank account at the expense of comfort for man and beast.

The brick house shown in the accompanying illustration was built in the sixties, and was the second of its kind in the township of Essa. No alterations have since been made. The third generation of Arnolds now occupy it. Hedges and trees add much to the attractiveness of the home. The main barn is 36 x 90, with two threshing floors, while the smaller barn is 24 x 62. They are covered with wire-edge ready roofing. Both are equipped with tracks for hay fork and slings. Stabling accommodation for horses and cattle is provided in the former, and in the latter, hogpens of modern construction, with cement floors and troughs, are found. A windmill supplies water for use both in stables and house.

The total area farmed by Mr. Arnold is 175 acres, 75 of this being grass land two miles from the home. A creek runs through the pasture area, and all cattle except milch cows are kept there throughout the summer. The crops grown betoken mixed farming. Each year's crop runs about 20 or 25 acres of fall wheat, 15 acres of barley, 20 acres of oats, 6 or 10 acres of peas, about 4 acres of roots, and a fair-sized field of clover for hay, or for plowing under. Occasionally a second crop of clover is threshed for seed. The returns from the fields for 1908 are approximately 700 bushels of wheat, 300 of barley, 100 of peas, 500 of oats, 6 loads of sheaf oats, 28 loads of hay, an estimated yield of 20 bushels of clover seed, 22 loads of sugar mangels, and 15 loads of turnips. In addition, there are 12 acres in hardwood bush.

Cattle, to the number of 25 or 30, are good grades. Six head of three-year-old steers and heifers that came off the grass land in thrifty condition will be fattened for the January market. The proposed ration comprises wheat chaff, pulped roots, and grain rations of oats and barley chopped. Occasionally, clover hay or cut oat sheaves will be given for a change. From 15 to 25 hogs are usually wintered. This season most of them were sold in summer. Other litters will come in March. Five work horses and a driver are considered ample. The manure from the stables and yards is applied by means of a spreader in liberal quantities on the root ground and on that area that is being plowed for wheat.

Advise your neighbor to subscribe now to "The Farmer's Advocate," and make sure of getting the 1908 Christmas Number along with his year's subscription. By sending two new names, accompanied by \$3.00 (\$1.50 from each), you may have your own subscription extended one year, by way of recompense for your effort.



Seven-headed Wheat.

Grown at Ontario Agricultural College for 13 years with an average yield lower than Red Fife or Goose. As was stated in our last issue, the now notorious Alaska wheat belongs to the same species, and is much similar in appearance.

THE DAIRY.

THE HOME MARKET FOR CHEESE.

The rapid increase in our population is likely to result in the consumption, in the near future, of all the cheese which we manufacture, especially as we are likely to decrease, rather than increase, our output of cheese each year from now on. The growth of the milk-condensing industry is one factor tending in this direction.

IS THERE ANY REAL DIFFERENCE BETWEEN THE DEMANDS OF THE CHEESE CONSUMER IN GREAT BRITAIN AND CANADA?

We hear considerable about certain kinds of cheese being all right for the home market, but unsuited for export. Is this really so? After making due allowance for the difference in individual tastes, of which there are probably greater extremes and more varied differences in the Old Land, as compared with Canada, a new country, our judgment is that a cheese which will suit the taste of the "average" man or woman in

Great Britain, will suit the taste of the "average" man or woman in Canada, and vice versa. We looked into this matter very carefully on both occasions when we had the privilege of spending a short time in the Mother Country, and are satisfied that there is little or nothing in the contention that one kind of cheese is needed for local or home markets, and another kind for export. Whence arises this impression, which is so prevalent? We venture to suggest, and hope that we may be forgiven for being so bold as to lift our eyes towards the "Seats of the Mighty," that this impression is a bit of fiction, originating with that very modest man commonly known as "the cheese-buyer." You ask how or why does he make this distinction? This question is not easily answered, but we would venture a guess that it originated in the "speculative bump" on the cranium of the aforesaid person. A moist, "meaty" cheese is rather an unsafe cheese to speculate with, hence he has told the factoryman that it is "all right for local markets," and if the factoryman is wise enough to get it to the consumer before it "goes off" in flavor, it will generally suit the home consumer. There is another class of cheese which the cheese-buyer usually persuades the factoryman is "all right for local trade," namely, the harsh, dry cheese. This latter is the worst kind of a cheese for any market. What we should aim at is a "meaty" cheese, containing all the moisture the cheese can safely carry, considering the time and temperature during and at which it is likely to be held before it is consumed. With modern methods of cold storage, cheese may safely contain a great deal more moisture than was formerly considered advisable. The difficulty lies in knowing how much moisture a curd and cheese may be allowed to retain. We have been working on this question at the Ontario Agricultural College during the past three years. The general results indicate, though these may have to be modified as a result of future investigations, that a curd at the time of dipping should have from 48 to 50 per cent. moisture; that the green cheese ought to contain from 34 to 36 per cent., and the ripe cheese 33 to 35 per cent. moisture.

Another difficulty is that, in ordinary factory work, the amount of moisture in curds and cheese is not known. The cheesemaker uses a term, "Stir the curds until they are dry," by which he does not mean "dry," but he means something, or a condition which he describes as "dry," but, as a matter of fact, the curd is anything but what he says it is. This is not due to a lack of knowledge on the part of the cheesemaker, but to a lack of terms to express his ideas. We should like to see in every cheese factory some form of moisture test. Our own experience to date is that there is nothing so convenient as an oven heated with steam, at high (40 to 60 lbs.), or low (8 to 10 lbs.) pressure.

We expected to have got samples of curd and cheese from a number of factories during the past season. We did not do so, first, because it was late in the season before we got our laboratory ready for the work, and, secondly, because, in the few samples of cheese which were sent in, the moisture was so low (23.6 to 29.6 per cent.) that we were satisfied a great deal of moisture had been lost during transit, though they were wrapped in heavy parchment paper and sent in a mailing tube which is practically air-tight. It is evident that we shall have to resort to some other method of shipping samples before we shall be able to get accurate data on this question. This and a number of similar questions need careful attention. As we have said many times, there ought to be at least one chemist and one bacteriologist devoting all their time to this and similar dairy problems in Ontario. We ourselves do not profess to be either a dairy chemist or bacteriologist.

CAUSES OF DRY CHEESE.

Coming back to the question of "dry" cheese and its cause, we may observe that we do not fully understand the causes and remedy. Some-



Home and Farm Buildings of T. W. R. Arnold, Simcoe Co., Ont.

times a cheese appears to be very moist, yet, on analysis, it may be about normal, or under average in moisture content. Determination of the soluble caseous matter generally shows such a cheese to be high in this respect, and what was thought to be moisture is really a breaking-down of the nitrogenous or muscle-forming part of the cheese. We frequently meet with such cheese where an extra amount of rennet is used, indicating that rennet is an active agent in the ripening of cheese; in fact, is probably the chief cause of the change known as "curing" or ripening.

In most cases, however, dry or soft cheese are caused by the absence or presence of moisture, though in some cases it may be due to an incorrect proportion of fat.

As the presence or absence of water, containing in solution valuable food constituents, like milk, sugar, ash or mineral matter, albumen, and some casein, is the most common cause of the phenomenon under consideration, we may briefly look at the conditions which determine the amount of moisture held in curd and cheese under normal conditions.

First, is the proportion and character of the casein, which is acted upon by the rennet, and becomes the carrier and holder of all other milk constituents found in the cheese. Some milks appear to have casein better adapted for holding and carrying than others. Milk properly cared for in the way of cooling seems to have this property in a greater degree. Our investigational work during the past season (1908) would lead us to believe that at certain times the milk is deficient in its normal proportion of casein, consequently the average from such milk is high—i. e., it takes more pounds of milk to make a pound of cheese.

Lactic acid seems to play an important part with reference to the amount of moisture held by the curds and cheese. The tendency is for cheese made from "fast-working" milk to be dry and crumbly in texture. The development of too much lactic acid causes undue and rapid contraction of the particles of curd, causing an excessive expulsion of the water in the cube of the curd. To counteract this tendency, cheesemakers resort to various means for checking the acid, such as rapid heating, early removal of the whey, washing the curds, cooking to a higher temperature than usual, etc. Proper control of the lactic acid is a very important point in making fine cheddar cheese. For this purpose, we know of nothing so useful as the acidimeter, along with good sense. A third cause of dry cheese is the constant stirring of the curds which is practiced by most Canadian cheesemakers. We are well aware that on this point we differ with a number of good men and practical cheesemakers whose opinion we are bound to respect, because they have "made good" in their practical work, but we may be allowed to say that, in our judgment, much needless energy, perspiration and cheesemaking material are annually wasted in stirring curds.

HOME CONSUMPTION OF CHEESE NOT KNOWN.

So far as we know, there are no statistics available showing how much cheese is sold in our local markets, but all are agreed that the present consumption could be materially increased if the right kind of cheese were offered. This was the unanimous opinion of the Manufacturers' Association on a recent visit to the Ontario Agricultural College. All agreed that if they could buy cheese like the sample supplied to the visitors at the Dairy Department, they would purchase much more. One man said he was coming back for a whole cheese, if it could be got. This is cited as an illustration of what might be done by supplying the right kind of cheese—not culls—for local trade.

H. H. D.

METHOD OF PASTEURIZING WHEY.

Editorials and correspondence dealing with whey pasteurization, appearing in the columns of "The Farmer's Advocate" during the past few weeks, have elicited from some cheesemakers a request that we give concise directions as to the most approved method of doing the work. The method will have to be regulated by conditions in the factory. Pipe connections between boiler and whey tank are necessary. Any device whereby steam can be directed into the tank will answer the purpose. Of course, a thorough distribution of the steam in the whey is essential to thorough and regular heating. Some makers find it economical to utilize the exhaust steam for most of the heating. Again, the use that can be made of the exhaust steam depends on the situation and equipment in the factory. All that is necessary is to have the temperature of the whey raised to 150 or 155 degrees, so as to prevent the formation of high acid, and also to inhibit the growth of bacteria which may be present in the whey. Higher temperature than 155 degrees is injurious. When acid developed to 1.5 or 2.0 per cent. in whey not heated, that which had been heated to 150 or 155 degrees showed only .25 per cent. acid. Another important factor is the daily

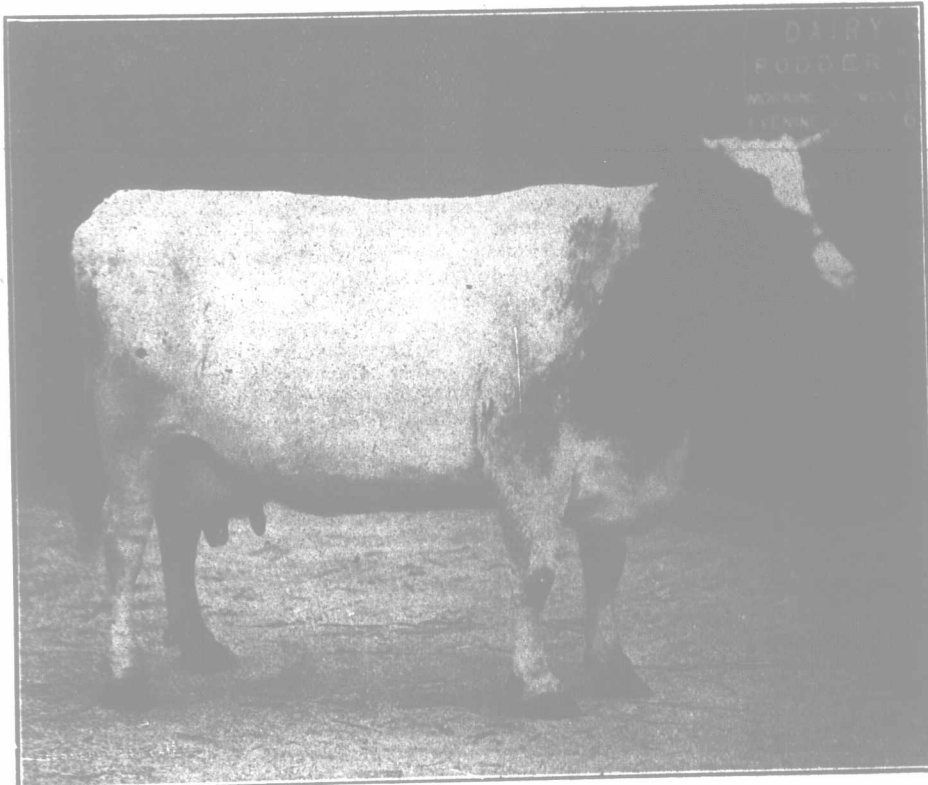
emptying of the whey tanks, and strict cleanliness. It has been suggested that lack of thoroughness in the heating might result in more harm than good. The season's work shows that heating to any temperature below 155 degrees is attended by no injury.

DAIRY PROBLEMS DISCUSSED AT SIMCOE.

The thoroughness with which dairy interests are supported by the present system of instruction and dairy education in Ontario, was evidenced at a district meeting at Simcoe, Ont., on November 24th, which a representative of "The Farmer's Advocate" was privileged to attend. In addition to a most interesting summing up of Canadian cheese manufacture in the various Provinces, there were discussions on problems old and new, which showed the intelligent interest taken in the work. The only regrettable feature of the meeting was the fact that every maker and every patron within a radius of eight or ten miles did not cast other cares aside for a single afternoon and partake of a real treat.

The chair was occupied by J. J. Parsons, of Jarvis, a director of the Western Ontario Dairy-men's Association. In opening the meeting, he pointed out the importance of holding such meetings, and asked all to take part in the discussions.

In dealing with the output of cheese in the various Provinces of Canada, Frank Hens, of London, Chief Dairy Instructor, said that Canadian cheese factories in 1907 manufactured 102,394 tons. Of this total, Ontario factories turned



Minnie.

Unregistered Shorthorn cow. First by inspection, highly commended in milking trial, London Dairy Show, 1908. Milk yield, one day, 60 lbs. 15 ozs.; butter, 2 lbs. 4 ozs.

out 64,846 tons. Western Ontario made 16,827 tons, or one-third of the total output of Ontario. Eastern Ontario made 48,019 tons. Western Ontario, therefore, turned out only about one-sixth of the total quantity of cheese produced in Canada. The greater or less output of cheese from Western Ontario, caused by climatic conditions, therefore, does not affect the world's cheese market as much, probably, as some have been led to suppose, not being acquainted with the facts. Quebec made 34,943 tons, Manitoba 633 tons, New Brunswick 602 tons, Nova Scotia 99 tons, Alberta 99 tons, and British Columbia 45 tons. The manufacture of dairy products during recent years indicated that Western Canada, as well as the Maritime Provinces, were directing their energies to buttermaking, rather than to the manufacture of cheese.

The organization in Western Ontario showed 200 factories in six groups, and seven factories in addition in the Orangeville district. The 200 factories had 16,295 patrons, whereas 73 creameries had 14,147 patrons. The average was 81 patrons to a factory, and an output of 83 tons of cheese to the factory, or 1.02 tons to the patron.

AVERAGE PER CENT. OF FAT IN MILK.

Throughout the season of 1908 attempts had been made to secure accurate data regarding the per cent. of fat in milk. The average was as follows: May, 3.3 per cent.; June, 3.37 per cent.; July, 3.38 per cent.; August, 3.5 per cent.; September, 3.65 per cent.; October, 3.8 per cent. For the season, the average was 3.5 per cent.

LOSS OF FAT IN WHEY.

Further interesting figures were given, showing the loss of fat in whey. In the past, various guesses had been made, but the results of between five and six hundred tests, from every factory in Western Ontario, covering every month from April to October, gave an average loss for the season of .23 per cent. fat. By the month, it was: May, .226 per cent.; June, .223 per cent.; July, .226 per cent.; August, .236 per cent.; September, .23 per cent.; October, .241 per cent. The results would lead one to believe that the yield of cheese in different months was not affected by loss of fat in whey during the cutting and cooking process, as much as by improper manipulations of the curd later, and by improper conditions of the milk.

PASTEURIZATION OF WHEY.

Satisfactory results had been derived from the heating or pasteurization of whey. Of 56 factories where pasteurizing had been practiced, the whey went home sweet and clean from 38. Judging from tests made, proper pasteurizing had not been done at the remaining 18 factories. As regards the economic side of whey pasteurization, Mr. Hens said that, in whey that had not been heated, the average per cent. of fat reaching the patron was about .09 per cent. In pasteurized whey the fat remained evenly distributed, and the average in that returned to the patron was about .23 per cent. No person seemed to have ascertained the true feeding value of fat left in the whey from the cheese factory, but a calculation at 4 cents per pound of fat showed a value of approximately

\$1.80 per ton of cheese, provided that the whey was properly pasteurized, and assuming that .23 per cent. fat was returned. Where not pasteurized, and whey returned under ordinary conditions, assuming .09 per cent. fat returned, the value would be only 72 cents per ton of cheese. It might be worth less or more. As regards the comparative values of pasteurized and unpasteurized whey, he could judge only from what the makers and men who fed it had to say. The general opinion was that pasteurizing made the whey more desirable for feeding. It was certain that the whey was kept sweet by the heating. According to reports from the season's work, it would pay patrons to arrange with the makers to pasteurize the whey before returning it.

The cost might range from 50c. to \$1 per ton of cheese, depending on the conditions under which the work had to be done.

CONDITION OF WHEY TANKS.

Frequent inspection revealed the fact that 59 whey tanks were cleaned once a week, and kept in satisfactory condition. Sixty-eight were cleaned every two weeks, and were in a fair state of cleanliness. Others were cleaned once a month. Experience had shown that the quality of the milk was injured by sour or unclean whey being in the cans. Why, therefore, could not makers and patrons arrange to keep the whey tanks in proper condition?

Mr. Parsons.—I know of factories where it is impossible to take time to clean the whey tanks. The fact is, whey is ready for the tank before the tank is empty.

Mr. Hens.—Something should be done to provide for such cases. It may require a small extra tank. There were eleven factories at which the whey tanks were not cleaned from spring to fall. Strange to say, eight of these are in one section. Some of the eleven factorymen contend that if they clean the tanks they will have bitter flavors. This argument will not hold good. It has been proven, too, that pasteurizing does away with bitter flavor.

Mr. Parsons stated that he was planning to put in two tanks, to be used day about, and the empty one cleaned thoroughly each alternate day. He believed pasteurizing the whey would do as much to improve the quality of cheese as cooling. Regarding the latter, reports from the Old Country showed that cheese put in cool-cur-

ing rooms reached the consumer in better condition than non-cooled cheese. The buyers, however, should encourage such methods. Last year, in Prince Edward County, they had paid one-quarter cent extra for cool-cured cheese, but recently little or no distinction was made.

Mr. Hems.—The construction of cool-curing rooms in Western Ontario seems to be at a standstill. Patrons will have to bear at least half the cost. Under present conditions, the proprietor runs a great risk, as he may lose patrons by one cause or other, and then not have enough cheese to make adequate returns from cool-curing.

DISTRIBUTION OF WHEY.

As to pasteurizing whey, it was pointed out that many patrons objected to paying for pasteurization, and then get no whey. Something should be done to guarantee every patron his share. It was not fair to turn all this work of looking after the whey over to the maker. The patrons should attend to the distribution of the whey. Some factories had a man to deal it out properly, and then wash the tanks.

ALKALINE SOLUTIONS.

The difficulties that arise by the use of alkaline solutions not being of uniform strength were mentioned by Mr. Hems. It was suggested that arrangements be made to provide a standard solution to makers. A local maker advised that those interested make their own solution. He had made his own alkali, at low cost, and had no trouble during the past season. Mr. Hems stated that some had urged that district instructors provide the solution. They could then be absolutely sure that no damage would result from the use of solution of wrong strength.

Instructor Geo. Travis, of Tillsonburg, considered that a competent maker need not be fooled by alkali solutions of wrong strength for very many days. There were three or four times in a day a man could know the situation. The acidimeter was commendable, but too much confidence should not be placed in its use. The hot iron, also, could be used to advantage. The frequency of mistakes in the strength supplied by druggists led those present to favor the purchasing of the solution from reliable sources, and taking every precaution to avoid errors that had resulted from one cause or another.

Discussing defects in cheese during the hot weather, Instructor Travis referred to the small round holes so frequently found. He said that methods should be followed that would avoid the defect, but it was a difficult matter to discuss them in such a way as would equip the maker always to overcome the difficulty. It was, however, largely due to drawing down the whey to surface of curd too soon. The best plan was to leave all the whey in the vat until the curd was fairly ripe, and then, by means of a large siphon, remove it as quickly as possible.

Mr. Parsons.—Would you advise the use of the quarter-inch knife?

Mr. Travis.—Yes, particularly for fast-working curd.

Robert Green, of Cayuga, Instructor for the Brantford district, said he would not be without the quarter-inch knife. In the spring, he had found difficulty in inducing makers to purchase one, but before the season was ended all were convinced it was the proper thing. One of the makers said he would not be without one in his factory if he had to pay for it out of his own pocket.

APPRECIATE INSTRUCTOR'S SERVICES.

As a slight token of appreciation of the good work done in the Simcoe District by Geo. Travis, local instructor, and also of the Department of Agriculture in supplying such instructors, the following letter, signed by the proprietors and the makers of the district, was read:

"Inasmuch as the Department of Agriculture has shown its deep and practical sympathy with the dairy interests of our country, in setting aside a grant to provide for further instruction and education along this line, and we have been favored with the experience and abilities of our esteemed instructor, Mr. Geo. Travis, whose energy and counsel has already told so favorably on the dairy interests of this district, we, the proprietors and makers of the cheese and butter factories of Simcoe District, desire to place on record our approval of the above-mentioned course of the Department of Agriculture, and express our thanks and satisfaction for the benefits received through the services of our instructor."

KNIFE BETTER THAN EXPECTED.

Your valuable premium to hand all safe. It is a first-class knife, far better than I expected. Wishing your valuable paper and staff every success.

WM. SUMMERS.
Wentworth Co., Ont.

The annual convention of the Nova Scotia Farmers' Association is to be held at Digby, N. S., January 26th, 27th and 28th, 1909.

PROBLEMS OF THE DAIRY.

By Laura Rose.

CREAMING MILK.

To get all the profit that should result from the dairy, each separate step must have intelligent care.

It really seems too bad, after the proper care has been given to the cows and the milk, that often in the method of skimming a serious loss of butter-fat is sustained. When a person expresses regret at the loss, the old-time excuse is still given: "Oh, well, the skim milk is good for the calves." To be sure it is: too good, from the pocketbook standpoint. Butter-fat is worth from 20 to 30 cents per pound, and we want to get just as much as possible of it out of the milk, and substitute a cheaper fat for the calves.

The oldest method of creaming milk, and the one which recommends itself the least, is the shallow-pan system. There is such a surface of the milk exposed that the danger of contamination from the dust and odors is great.

It is a pretty sight to look into a clean, white-washed milk-room and see the rows of bright, shining tin pans filled with rich milk, but too often the pans are found in the fruit-and-vegetable cellar, or on the pantry shelves off from the kitchen, where the milk gets the full benefit of the cooking fumes, etc. If we want fine-flavored cream, the surroundings where the milk is kept must be clean. I have tasted the night's milk decidedly musty in the morning, from being kept overnight in a cellar which had no ventilation. The milk should not be more than three inches deep in the pans, and should set at least twenty-four hours before being skimmed; but the cream should be removed before the milk thickens. To skim, loosen the cream from the pan, lift the pan to the top of the cream can, hold back the cream with a knife to allow a little of the skim milk to wet the edge of the pan, then quickly glide the sheet of cream into the can. Do not use the old-fashioned perforated skimmer. If the cream is not thick enough to glide off, then skim it with a large spoon or shallow saucer.

Good skimming should not leave more than .3 to .4 per cent. of butter-fat in the skim milk. Where only one or two cows are kept, the shallow-pan system is the most convenient.

Before the advent of the cream separator, the deep-setting system was much in vogue. To get the best result from the deep cans, the milk should be immediately strained into the cans, and the cans set in water as far up as the milk reaches. The effectiveness of the creaming depends on the temperature of the water and the length of time the milk stands before being drawn off. Unless the cans stand in a running spring, with the water below 50 degrees, there should be ice kept in the tank with the cans all the time, summer and winter. The water should be kept at a temperature between 40 and 45 degrees, and the milk should stand twenty-four hours before the skim milk is drawn off. To set the cans in a tub of well water, or outside in the air, or on the cellar floor, and draw off the milk at the end of twelve hours, simply means a loss of about half the cream. Under favorable conditions, not more than .3 per cent. of fat should be found in the skim milk, but this means the cans must stand in ice-water twenty-four hours, and be carefully handled, so as not to mix the cream with the milk.

Where a sufficient number of cows are kept, a separator is the proper thing to have. It is hardly necessary, in these times, to enumerate the advantages of a separator over the other methods of creaming milk.

I cannot help your readers in the selection of a machine. There are many reliable makes, doing equally good work. The more important part is to make a study of the machine you do buy, so as to properly care for it, and get the best work from it.

Put the machine up in a clean, convenient place. Have the foundation level and solid. Use only the best of oil, and see that all the necessary parts get plenty of it. Get up the speed slowly. Put a little hot water through to heat and wet the bowl before turning on the milk.

The milk should not be allowed to get below 90 degrees. To overheat it does not matter, but clean skimming cannot be done with cold milk. The speed should be evenly maintained throughout the run. Give a few extra turns of the handle per minute, rather than fall below the tabulated number. I think many do not keep up the speed of their machines, and so lose an unnecessary amount of fat in the skim milk. Flush out the bowl with warm water at the end of the run, to remove all the cream from the bowl. Unless the machine is provided with a brake, do not try to check it when running down.

The machine must be cleaned each time of using. Rinse in tepid water all parts which have come in contact with the milk, then thoroughly wash in hot water containing some good washing powder. Scald well and let drain, and dry well.

the framework of the machine, and cover with a cloth to keep out the dust.

The care and ripening of the cream I will treat of in my next article.

FEEDING COWS WITHOUT SILAGE OR ROOTS.

How shall I feed my cows for milk. I have no roots, no silage, and no clover hay. I have plenty of oats, and abundance of good clean timothy hay, also good oat and wheat straw. Would you think it a good plan to feed these whole, and bran and chop dry, or would you cut and mix? I am very desirous of feeding to the best advantage.

YOUNG FARMER.

As the straw and timothy hay are distinctly carbonaceous feeds, it will be necessary, for best results, to supplement them with some more strictly nitrogenous concentrate than oats, although oat chop may constitute half of the meal ration. We would suggest as roughage, say, two parts hay and one part straw, preferably oat straw. Of course, the proportions may be varied at the discretion of the feeder. With this, feed a mixture of two parts, by weight, of oats, one part bran, and one part oil-cake or cottonseed meal. The amount of the meal ration per cow may be varied according to response. Six to eight pounds would probably be about right for a cow giving a fair flow of milk. It is a question whether it will pay, in the long run, to bother mixing feeds. If the feeder has time to spare, it might, in the absence of roots or silage, be worth while cutting a part of the hay and straw, mixing in a tight box provided with a lid, and steaming by pouring hot water over the mess, and then covering to keep in the steam. A handful of salt, and a proportion of the meal ration corresponding to the minimum fed to any cow, might be advantageously included with this steamed feed, the rest of the daily meal allowance to the other cows being thrown on top after each cow's moist feed has been deposited in the manger. There is no doubt that the steaming and mixing of part of the feed in this way will stimulate the milk yield somewhat, especially for a time, though the permanent effect may not be enough to pay for the labor involved. The writer has prepared cut cornstalks and clover chaff in this way, apparently with marked results the first season, but the second winter it did not seem to be of so much advantage. Probably some of the assumed effect the first year was due to better and more regular care of the herd, accompanying the adoption of the above idea.

DAILY VERSUS INTERMITTENT RECORDS.

Editor "The Farmer's Advocate":

The question of keeping records is a very important one for all owners of cows. This is recognized by the Dominion Government, and the Department of Agriculture has been doing good work in encouraging this work, by the assistance given in the formation of cow-testing associations. C. F. Whitley, who has charge of this work, has been very active and enthusiastic in urging dairymen to form such associations.

In April of last year the Milton Cow-testing Association was formed here, with about twenty-three members, who all obtained their outfits. With the exception of paying for the necessary outfit, all other expenses are paid for by the Government. We fully expected that within the year many more would join, and the association would double, at least, its membership. No intelligent dairyman will dispute the usefulness of such work as is done by these associations. No one can carry on dairying successfully without keeping only good cows, and the only way to be sure of your cows is to weigh the milk, and test it, as well. Little time is taken, and one knows exactly the value of each cow.

Our surprise is great, then, to find that, in place of increasing its membership, the Milton Cow-testing Association has lost, and now can number only about ten members. This opens up a question for thought: Is this the history of other such associations? It would be interesting to your readers to have a list of all the cow-testing associations formed in the Dominion, number of members in each at formation, number at end of one year, and number now, together with a list of those (if any) which have gone out of existence. Then we will have facts upon which we can judge as to the popularity of these associations. If others are as little appreciated by the dairyman as our is, then we should inquire into the reasons and seek out a remedy. Those who remain as members here are well satisfied, and desire to continue, and it may be that soon others, if any, have felt it necessary to dispose of their unprofitable cows at any price. It may be that they have no such cows, or it may be that all such cows are not entered into the records. Nor have many, if any, started to keep daily records.

We consider the desired results of all the efforts and all the assistance of the Department should be: First, the keeping of daily records by the dairyman himself; second, the weeding out of his herd. The next will surely bring about the

second. This being taken care of, the production, does not seem to encourage the same responsibility. The member does not realize that it is his own work and his own business. Until he keeps a daily record, he is not sufficiently interested in his cows. As soon as he does this, he sees new light; he watches the scales morning and evening; he will do his best to keep up the flow of milk day after day, thereby doing better and cleaner milking. He will watch the effect of the different feeds, and the manner of feeding and watering, as well. He can see how any rough treatment or exposure to cold or drafts will lessen, while kindness and good care will increase, the flow of milk. He will, in fact, learn that his cows are sensitive animals, and that he himself can do much to affect the flow. He will then study the constitution of each cow, and will be able to make dairying pay by following up this knowledge, and by getting rid of all unprofitable cows.

If one cannot as yet undertake this, then, by all means, join the cow-testing association, and remain a member until you can do the work for yourself.

We have kept daily records for four or five years, but belong to our association as well. We find every caretaker, every milker and every feeder in our dairy interested in the daily records, but quite indifferent to those taken three times a month. We have been able to dispose of numerous unprofitable cows, selling them for whatever they will bring. We have learned that some cows do not pay for their keep; hence, better give them away. And it is not the good-looking cows or the cows of ideal dairy shape that are always the best producers. A cow, to remain in the dairy, must prove her right to do so by performance alone.

D. ROBERTSON.

Halton Co., Ont.

ONE ASSOCIATION OR TWO?

It has been suggested that dairying in Eastern Ontario has developed to such an extent that no longer can one association look after the divers interests of that important class of agriculturists to advantage. It is not probable that any action will be taken to form two associations to do the work that for years has been under the supervision of the Eastern Ontario Dairymen's Association. In fact, it would be folly to do so. Too much machinery is worse than too little. With due care in selection of men for the executive, one association can perform the duties that have to be considered by that organization as well as two—or, half a dozen, for that matter.

Conventions and district meetings are commendable. If, however, it were agreed that two conventions were required to cover Eastern Ontario, that could be done without the formation of another dairymen's association. Again, if a greater number of district meetings are desirable, they can be arranged by the executive of one association. There are many lines of work that can be undertaken, and that will benefit the dairyman, but all this can be accomplished by the Eastern Ontario Dairymen's Association with enthusiastic men in charge, and a due co-operation with the other forces that labor in the interests of the dairy industry.

U. S. MILK CONSUMPTION.

According to a statistician who has taken the trouble to figure on milk consumed annually in the United States, the clean-milk problem is a vital one, affecting the production and consumption of over 9,000,000,000 gallons per year, being an annual supply of over 100 gallons for every man, woman and child in the country. This amount affords 1.1 quarts a day for every individual, which includes the milk used in making butter and cheese. The actual amount of whole milk consumed each day averages about .65 of a pint for every individual. The value of this product for a year, at retail, is the startling sum of 2,500,000,000 dollars. This is about one-fiftieth of the entire wealth of the nation, five times the wholesale value of last year's wheat crop, nearly twice the value of the corn crop, and over one-third of the entire value of farm products for 1907, which is estimated at 7,400,000,000 dollars. The wholesale value of dairy products last year was estimated at 800,000,000 dollars, which would allow a price of less than 10 cents a gallon for milk at the dairy. An average retail price of 7 cents a quart was assumed, which is probably a little below the average price.

MOST HELPFUL PAPER IN THE HOME.

Enclosed find subscription for your paper from April, 1908, to April, 1910. I consider your paper the most helpful for a farmer that enters our home. C. E. MOORE. Peterborough Co., Ont.

CREAMERY MEN TO MEET.

The annual meeting of the creamerymen of Western Ontario, to be held at the Dairy School of the Ontario Agricultural College, Guelph, at 1:30 p.m. on Wednesday, December 9th, promises to be of great value. Reduced railway rates will prevail on the different lines to the Winter Fair.

The programme includes: Chairman's Address, by J. H. Scott, of Exeter, 2nd Vice-President of the Western Ontario Dairymen's Association; Creamery Instruction Work of 1908, by Frank Hens, Chief Dairy Instructor for Western Ontario and Secretary of the Western Ontario Dairymen's Association; Creamery Improvements, by Mac. Robertson, Creamery Instructor, St. Mary's; Cream Testing, by Geo. Taylor, of O. A. C.; Why Creamerymen Should Attend Dairy School, Fred Dean, Creamery Instructor, Guelph; and Western Ontario Butter in Montreal, by J. Burgess, Official Referee. G. A. Putnam, Superintendent of Dairy Instruction; J. Brodie, of Mapleton, and Professors Dean, Harcourt and Edwards, of O. A. C., will be present to take part in the discussions.

POULTRY.

EGG-LAYING COMPETITION.

Irish poultry enthusiasts have an egg-laying competition of considerable proportions under way. One hundred pens are entered, and six pullets have been placed in each pen. To derive the greatest benefit possible, it has been deemed advisable to give number of eggs laid, weight of eggs, and value of the produce. The results from the twenty leading pens for the month of October are:

| Breed. | Eggs laid. | Weight lbs. ozs. | Value s. d. |
|------------------|------------|------------------|-------------|
| White Wyandottes | 121 | 14 4 | 13 6 |
| Buff Rocks | 111 | 13 7½ | 12 8 |
| White Leghorns | 112 | 12 10½ | 11 11 |
| Buff Orpingtons | 105 | 12 0½ | 11 6½ |
| Buff Orpingtons | 104 | 12 0½ | 11 5½ |
| White Wyandottes | 108 | 12 0½ | 11 4 |
| White Wyandottes | 112 | 11 11½ | 11 2½ |
| Black Leghorns | 107 | 11 10½ | 11 1½ |
| White Wyandottes | 104 | 11 12½ | 11 1½ |
| White Orpingtons | 101 | 11 6½ | 10 9 |
| Buff Orpingtons | 91 | 11 4½ | 10 8 |
| White Leghorns | 101 | 11 4½ | 10 6½ |
| Buff Orpingtons | 91 | 10 14½ | 10 4 |
| Buff Orpingtons | 87 | 10 15½ | 10 3½ |
| White Wyandottes | 87 | 10 6½ | 9 10½ |
| White Leghorns | 84 | 10 2 | 9 6½ |
| White Leghorns | 93 | 10 2½ | 9 6½ |
| Buff Rocks | 85 | 9 14 | 9 3½ |
| Buff Orpingtons | 76 | 9 7½ | 8 10½ |
| S.-C. Anconas | 73 | 9 4½ | 8 9½ |

AGAINST FORCED MOULTING.

The results of a series of experiments in connection with hatching, feeding and caring for poultry, as well as comparisons in weight of eggs from the various breeds, lead the Pennsylvania State Agricultural Experiment Station to sum up the conclusions in bulletin form as follows:

1. Large breeds, in general, eat more than small ones during the growing period.
2. Early-hatched chicks grow faster than late-hatched ones. April 1st seems to be a desirable time for hatching in this latitude (Pennsylvania).
3. The amount of feed required to produce a pound of gain increases as the chicks approach maturity.
4. Between the ages of 6 and 13 weeks, it required from 4 to 4½ lbs. feed to produce a pound of gain. Between the ages of 13 and 26 weeks, it required 4½ to 5½ lbs. of feed to produce a pound of gain.
5. Chicks forced when young do not make as rapid growth as they approach maturity as those fed a more moderate ration.
6. Chicks weighing less than one pound seem to grow faster on a wet mash; those weighing a pound and a half or more do best on dry feed.
7. The loss among chicks on wet mash was much greater than among those on dry feed, even when weighing less than one pound each.
8. The slaughter tests indicated that the American breeds dress out better than either the Mediterranean or Asiatic breeds, and that, in general, pullets dress out better than cockerels. When rather small, weighing less than 3½ pounds live weight, the cockerels of the Mediterranean and Asiatic breeds seem to dress out better than the pullets.
9. Forced moulting seemed to first depress, then slightly increase egg production, but the net results at the end of three months were against forced moulting.
10. Eggs set about April 1st seemed to produce the highest per cent. of chicks.
11. The eggs of the different breeds, in order of their weight, were as follows: Black Minorca, Light Brahma, Barred Rock, White Leghorn, White Wyandotte, Rhode Island Red, White-crested Black Polish, Buff Cochins. A great deal may de-

pend upon the strain, as it is known that some hens of any breed normally lay larger eggs than others of the same breeds.

12. The weight of chicks when hatched does not seem to be in direct proportion to weight of eggs.

COMBATING MITES AND LICE.

Dealing with lice and mites, so frequently found in poultry houses that are not properly cleaned, the United States Department of Agriculture has sent out the following:

There are several varieties of lice that attack poultry. They subsist mainly on the feathers, and perhaps on the epidermal scales. They are found largely on the head and neck, under the wings and about the vent, and when present in large numbers they cause the fowls much discomfort. Persian insect powder (pyrethrum), powdered sulphur, and some of the various preparations on the market, such as the louse powders, are good in combating these pests. The hens can be dusted with one of these powders after they have gone to roost. Have the powder in a box with a perforated cover, grasp the fowl by the legs, and shake the powder well among the feathers. Dust at least three times, at intervals of about a week, in order to catch the lice which hatch out after the first dusting.

The mites subsist on the blood of the fowls, and are not usually found on the bodies of the bird, except when at roost or on the nest. During the day they inhabit cracks and crevices of the walls, roosts and nests. Sitting hens are often so annoyed that they are compelled to leave the nests in order to relieve themselves of these parasites. The free use of kerosene about the nests and perches is useful in fighting the mites. The walls of the house may be sprayed with kerosene, the operation being repeated every three or four days for two weeks. Insect powders are of little avail.

The following method has proved excellent in ridding houses of mites and lice when the weather conditions are such as to permit the birds being kept outside the house for five or six hours. Close all the doors and windows, and see that there are no cracks or other openings to admit air. Get an iron vessel and set it on gravel or sand near the center of the house; place a handful of shavings on these, sprinkle sulphur at the rate of one pound to every 90 or 100 square feet of floor space. Instead of using the shavings and kerosene, the sulphur can be saturated with wood alcohol. When everything else is in readiness, light the material and hastily leave the house. In case any anxiety is felt about fire, a glance through a window will show whether everything is all right. There is very little danger of fire when proper precautions have been taken to have plenty of soil beneath the vessel. Allow the house to remain closed for three or four hours, at the end of which time one can safely conclude that there are no living beings inside. Now throw all the doors and windows wide open, so as to drive out the sulphur fumes thoroughly, and then the fowls may be allowed to enter. Let them in one by one, and as each enters catch it and dust it well with insect powder, which will destroy the lice on the birds. Tobacco dust is also good to use instead of insect powder. The birds and house have now been freed from vermin for the present, but the eggs of the insects have not been destroyed, and in a week another swarm will be hatched out. Therefore, it will be necessary to repeat the operation once or twice before the pests are exterminated. After this, care should be taken to see that no strange fowl be admitted to the house or yard without having been thoroughly rid of lice, for one lousy hen will contaminate all the rest.

OBJECTIONS TO INBREEDING.

The North Dakota Experiment Station, after conducting numerous tests with the object of finding out the effects of inbreeding in poultry, report that 13 out of 16 eggs laid by three inbred grade pullets, and 10 out of 24 eggs laid by four inbred Barred Plymouth Rock pullets, were hatched. In each case there were 8 deformed chicks. Twenty-one out of 26 eggs, and 22 out of 27 eggs, laid respectively by 2 and 3 year-old hens and two grade pullets (not inbred in either case), also were hatched, and none of the chicks were deformed. For four months another record was kept of the egg yield, and it was found that from four inbred yearling hens the returns were 42.5 eggs per hen, as compared with an average egg yield of 60 per hen in the case of three hens 2 and 8 years old, not inbred. The inbred hens were very erratic in their performances. They are said to have laid heavily at times, and then to have ceased for a time.

GARDEN & ORCHARD.

CANNED TOMATOES AND THE RETAILERS.

With reference to the canning industry of Canada, the opinions of retailers, or the men who pass the goods on to the consumer, are interesting. Naturally, they wish to do the maximum amount of business. The greater the number of cans of tomatoes they hand out to consumers, the more businesslike it seems to them, provided they can make a reasonable profit in doing so. In other words, the retailer prefers to sell at a reasonably low price, since that factor has much to do with quantities disposed of. The counter price of a few years ago (three cans for a quarter) was within the reach of all, and large quantities of tomatoes in three-pound tins found ready purchasers every season. A steady annual increase in consumption was noticed, and the producers of the raw product had an ever-widening outlet for the product of their tomato areas. Everyone seemed to be comparatively well satisfied with conditions. Growers considered that, since they did the bulk of the work, they should get higher prices, but the promise of a keener demand had a tendency to keep down complaint.

In those days, the three-pound tins of tomatoes were supplied retailers at 70 cents to 80 cents a dozen, and some grocers aver that they purchased them below those figures. On the plea that increased cost of labor and other expenses left no profit, the price has been advanced, until retailers have been forced to pay as high as \$1.35 per dozen or cease handling the goods. In a few instances no orders were given. With this advance at the selling end, it would be expected that the grower should receive some extra allowance for increased capital in land of higher value, and for labor, which costs him more. But does this advance of 30 cents to 60 cents or more a dozen find a corresponding advance in price for the raw product? In some cases a slight raise has been experienced, but it is very slight, compared with the increase to the retailer who wishes to sell at the former price of three tins for a quarter, and thus increase the volume of his business.

"Canned tomatoes should be bought at 85 cents a dozen for three-pound tins," said a prominent retailer in Toronto to a representative of "The Farmer's Advocate," recently. "This would allow us to retail them at three for 25 cents. We used to get these goods at 70 cents to 75 cents a dozen, laid down. The extra 10 cents should be sufficient to cover increases in cost of labor, etc. Instead of that, in 1906 and 1907 we have been obliged to pay \$1.17½ to \$1.27½. This year the price has been dropped to \$1.00. Independent factories are opening, and, besides, some retailers refused to buy goods at such exorbitant prices and under conditions arranged to the manufacturer's advantage in every particular. A representative of the manufacturer comes around in the spring to ascertain how many dozen or how many cases will be required. The price is not set until they are ready to deliver the goods in the fall or early winter. The retailer is obliged to take every can ordered, but if the company feels inclined to hold back, he need deliver only 60 per cent. of the order. They do their best to hold the price up, but sometimes come down when it is realized that the retailer can do better elsewhere. Independent companies give slightly better figures. As a rule, the difference runs about 10 per cent. But the difficulty is that many consumers demand a recognized brand, and the new company finds it hard to dispose of its output. Besides, some representatives of the big firms do all they can to injure the smaller companies when they are among the retailers."

In reply to a question as to increased sales with the price at three for 25 cents, this retailer said: "I could sell at least 25 per cent. more goods if they were put into me at 80 cents or 85 cents than I can when I pay \$1.15 or higher. At present, the customer buys other goods to take the place of tomatoes, but the tendency is to depress trade by lessening consumption."

"In regard to canned goods," said another prominent retailer of Toronto, "we are at the mercy of the canners. In years gone by I have bought tomatoes as low as 50 cents for a dozen three-pound tins. Within the past few years the price has gone as high as \$1.35. They take the order in the spring, while the crop is still un-grown in the field, and guarantee that the price will be all right, but in the fall the price is set dependent on the pack. If the supply is limited, the price is put up. I consider that 80 to 90 cents a dozen should be fair for all concerned. I would think that the canner could pay the grower at least 30 cents a bushel, and we could sell at three cans for a quarter. Last year's prices were so outrageous that about 50 per cent. of the trade couldn't buy. The result was a decreased consumption. One would think the canners want four or five factories to run the business, and, in doing that, to take the profit from both farmer and retailer.

"It is a difficult situation to remedy. I believe there are many retailers who prefer to support independent factories. These might join together to guarantee the co-operative factory a market for their goods, which can be bought at 10 per cent. reduction. If, however, the canners continue the high prices, the Government should remove the duty from canned goods. Evidences of a combine should be sufficient to allow goods to come in free of duty.

"But, with all the advance in prices, the producer has to be content with the old figure. The canners still claim they can't afford to pay more than 25 cents, or, at most, 35 cents a bushel for tomatoes. Surely, with an increased return of about half a dollar on a dozen cans, they could arrange to pay the man who does the work a little more. But perhaps the grower is making sufficient profit if he gets 30 cents a bushel. What we want is high-class stuff at a reasonable price. If I got my tomatoes at 80 cents or 85 cents a dozen for three-pound tins, I could sell fully one-third more than I dispose of when they cost \$1.15 or \$1.20, or higher."

London retailers, also, were interviewed by "The Farmer's Advocate." Similar complaints were given. It was considered that high prices curtailed the canned-tomato business by 30 or 35 per cent. One grocer said that, while he could buy at lower prices from independent companies, they usually advanced their figures, keeping them about five cents a dozen below those of the bigger companies.

This is the opinion of men whose sole duty it is to dispose of the goods made by the canners from the raw product of the farmer. To them, the price should be a matter of little or no concern, provided they sell sufficient quantities at such advance over cost as would pay them to handle the goods. The questions of greatest import are: Does the producer get enough to repay him for growing the crop? Do the canners have a reasonable margin for manufacturing and placing the goods in retail stores? Are retailers in a position to sell at such figures as will result in the maximum consumption, after giving a fair profit to growers and canners, as well as to themselves?

METHODS IN APPLE ORCHARD.

Editor "The Farmer's Advocate":

Apple-growing may be treated under four heads, viz.: Propagation, Training, Pruning, Cultivation. The first, propagation, again, may be considered under four heads, according to methods adopted, viz.: From seed—the method usually adopted by nurserymen when raising new varieties; from cuttings; by budding, usually in July; and by grafting, in April.

As to training, apple trees may be induced to grow in almost any shape or form. A start should be made with the maiden stage (or one year's growth from the graft) for the desired shape. If for pyramid, prune away all but three main branches, viz., a leader, and two side ones. Afterwards, shorten these to about three buds; then treat the second-year growth in a similar way. Always be careful to leave outward branches of each year's growth, to be cut back to about six inches, the idea being to have fruit spurs set as quickly as possible. The leader of each year's growth must be higher than the branches. This form is used very largely in the fruit-growing districts of England.

In training for bush form, prune to get three main branches, as in pyramid shape, but prune back the central one, instead of allowing it to grow too long. Also leave the middle of the tree perfectly open, in the third year having probably six or eight branches, the idea being to induce each to branch at about equal distances all round, so that each branch gets its share of light and air. The fruit will be larger and of better color, and is more easily got at. Besides, a larger number of trees can be set on an acre.

Cordons are developed by training so that fruit hangs like onions on a string. The object in having this form is to allow no branch to grow, but to restrict it to its formal shape. They can be used to cover unsightly walls, if number 12 wire be used, about 15 inches apart. Farm walls are a valuable asset to this purpose. This form lends itself to arches or borders. If on walls, the slope should be about 45 degrees, and the trees should be planted about 18 inches apart. Prune to make the buds break close to the graft, and get every bud to form a fruit spur. In winter prune back to two buds, and avoid any waste wood. If more than one apple forms at a spur, it will be necessary to thin.

Pruning is an art acquired by training, practice and observation. Each variety should be treated on its merits, the objects of pruning being to give the tree more light and air, to remove superfluous wood, and to obtain better samples of fruit. The knife should not be spared on young trees.

Regarding cultural methods, the ground should be well prepared by trenching. Great care should be taken in planting, and manure never should

be applied to the roots when planting, but as a top-dressing afterwards.

Lime and salt makes a good spraying mixture for moss-covered trees. A satisfactory spray, also, may be made by using caustic soda (or potash), soft soap and paraffin, and using at the rate of a wineglass for a gallon of water. Canker can be treated by cutting out clean and painting the wound with Stockholm tar. E. J. H. York Co., Ont.

[Note.—The above article, from an English gardener, is not without interest to our horticultural readers, although the methods described would not be considered practical by orchards of the leading fruit districts in Canada.—Editor.]

PROSPECTS IN BRITISH COLUMBIA.

"What are the prospects for success in growing fruit in British Columbia by three young English clerks, with a combined capital of about \$1,000?" A. T. A.

The presumption is that these three young men have not been used to manual labor. It is just possible, too, that they have inherited a prejudice against manual labor. If so, their chances of success are nil. If they are still young, say not above thirty, and are willing to spend at least one year as an apprenticeship, working for fruit-growers in British Columbia, and using their opportunities for observing the quality of the land, the situation and the possibilities of irrigation, if it is in the dry belt, there is no reason why they should not succeed. There are opportunities in several parts of British Columbia for young men who are willing to work with their hands as well as with their heads.

The best time, of course, is to be in British Columbia to begin work in the early spring months, so that the full year's routine would be fully mastered; but there is work at all seasons on the British Columbia fruit ranch, with the exception of a short time in winter.

Such men are especially cautioned not to invest their money until they have been some time in the country. The real-estate agents are almost as thick in British Columbia as fruit trees in an orchard, and it requires some little experience in the country to balance the opportunities so as to invest wisely. A. McNEILL.

THE FARM BULLETIN.

To Our Club-raisers.

There are thousands of farmers who do not know what they are losing every year through not being subscribers to "The Farmer's Advocate and Home Magazine." Therefore, we want all readers of "The Farmer's Advocate" to act as club-raisers this year, and send us large lists of NEW SUBSCRIBERS.

If you send us two new names and \$3.00 to cover same (each new subscriber paying \$1.50), we will mark date on your paper forward one year as remuneration to you; or, for each single NEW NAME, accompanied by \$1.50, we will advance the date of your address label six months. Cash commissions or premiums, as preferred, for larger lists of new names.

In clubs of FOUR RENEWALS OR OVER, we will accept \$1.25 each.

Premiums not included in club offers.

Start raising your club immediately. Get "The Farmer's Advocate and Home Magazine" into every household in your locality.

NOW FOR THE WINTER FAIR.

The Ontario Winter Fair at Guelph, to be held this year on the dates, December 7th to 11th, should appeal to farmers' families from a wide range of the Province, as a favorable opportunity of seeing a great show of stock, alive and in the dressed carcass; also, the greatest display of live and dressed poultry to be seen at any show of the sort in America. The illustrated lectures by experienced farmers, breeders and teachers in the lecture hall, in the same building as the stock show, and all for the one admission fee of 25 cents, constitute an educational advantage to farmers such as can nowhere else be obtained at so little cost. For information regarding cheap railway rates and programme of judging and lectures, see pages 1802 and 1803 of "The Farmer's Advocate" for November 26th, and other columns in this issue.

PROGRAMME OF ADDRESSES AT WINTER FAIR.

Following is the programme of lectures arranged for the Ontario Provincial Winter Fair, to be held at Guelph, December 7th to 11th, 1908:

Hon. J. S. Duff, Minister of Agriculture, will act as Chairman at each of the following meetings. The meetings will be held in the lecture-room in the Winter Fair Building.

Tuesday, Dec. 8th, 8 p. m.—Poultry—Address: "Fattening Chickens, and Demonstration in Trussing," by Miss Mary Yates, Macdonald Institute, Guelph. Address: "When and How to Hatch," by L. H. Baldwin, Toronto. Address: "Breeding and Rearing Chickens" (Illustrated by Stereopticon Views), by W. R. Graham, Manager Poultry Department, O. A. C., Guelph.

Wednesday, December 9th, 9.30 a. m.—Dairy.—Address: "The Pasteurizing of Whey," by Frank Hens, Chief Dairy Instructor for Western Ontario, London. Address: "The Feeding Value of Pasteurized Whey," by W. C. Shearer, Bright, Ont. Address: "Cleanliness in the Milk Supply," by W. F. Stephen, Huntingdon, Que. Address: "How to Obtain Large Milk Yields," by Geo. Rice, Tillsonburg, Ont.

Wednesday, Dec. 9th, 2 p. m.—Horses.—Address: "Cause and Prevention of Common Ailments in Horses," by J. Standish, V. S., Walkerton; Wm. Smith, Columbus. Attention will be given, among others, to the following: Indigestion, Colic, Lymphangitis, Heaves, Azaturia, Joint-ill. Address: "Treatment of Common Ailments in Horses," by J. Hugo Reed, V. S., Prof. of Veterinary Science, O. A. C., Guelph.

Thursday, December 10th, 9.30 a. m.—Cattle.—Address: "Cause, Prevention and Treatment of Common Ailments in Cattle," by H. G. Reed, V. S., Georgetown. Discussion—Robert Miller, Stouffville; W. F. Stephen, Huntingdon, Que. Attention will be given, among others, to the following: Milk Fever, Contagious Abortion, and Indigestion.

Thursday, December 10th, 2 p. m.—Sheep and Swine.—Address: "Cause, Prevention and Treatment of the Common Ailments of Sheep," by J. Hugo Reed, V. S., Prof. Veterinary Science, O. A. C., Guelph; John Campbell, Woodville. Attention will be given, among others, to the following: Worms, Indigestion, and Scab. Address: "Growing and Handling Wool," by T. D. Wardlaw, Toronto. Discussion—Lieut.-Col. D. McCrae, Guelph. Address: "Outlook for the Swine Industry in Ontario," by G. E. Day, Professor of Animal Husbandry, O. A. C., Guelph.

Thursday, December 10th, 7.30 p. m.—Seeds.—Address: "Alfalfa-growing in Ontario," by C. A. Zavitz, Professor of Field Husbandry, O. A. C., Guelph. Discussion—Henry Glendinning, Manilla; Thompson Lawson, representative J. A. Bruce Seed Co., Hamilton. Address: "Identification of Weeds" (Illustrated by Stereopticon Views), by G. H. Clark, Seed Commissioner, Ottawa.

FAIR DATES FIXED.

Nov. 28th to Dec. 10th.—International Live-stock Exposition, Chicago.
Nov. 30th to Dec. 3rd.—Maritime Winter Fair, Amherst, N. S.
December 2nd to 10th.—National Dairy Show, Chicago.
December 7th to 11th.—Ontario Provincial Winter Fair, Guelph.
January 13th to 15th.—Ontario Horse-breeders' Exhibition, West Toronto Stock-yards.
January 18th to 22nd.—Eastern Ontario Live-stock and Poultry Show, at Ottawa.

The annual meeting of the Prince Edward Island Fruit-growers' Association, and the Fruit Show, will be held at Charlottetown, December 8th and 9th, 1908. The Provincial Seed Fair will be held at Summerside, March 10th, 11th and 12th, 1909.

BEST IN AMERICA.

I herewith send you my subscription for another year. I think "The Farmer's Advocate" is the best agricultural journal published in America. I have had a number of farmers' papers, but none that could equal this one. We have taken it for some years now, and I don't know how we could get along without it. For anything we want to know in the line of agriculture, we go to "The Farmer's Advocate."
Waterloo Co., Ont. WILLIAM FORBES.

AGREEABLY SURPRISED.

I beg to acknowledge, with many thanks, the receipt of the knife, as a premium for sending you the name of a new subscriber. I am certainly most agreeably surprised with the quality of the knife, and feel sure that my friends will want one when they see it. Again thanking you, I remain,
Oxford Co., Ont. H. WESTON PARRY.

A LIBERAL OFFER.

Having seen your most liberal offer in "The Farmer's Advocate," I comply by sending you two new subscribers, expecting you to send them "The Farmer's Advocate" for one year, and also to advance my subscription for one year. Enclosed find three dollars for same. We find "The Farmer's Advocate" the best all-round farm paper that we have ever read.
Haldimand Co., Ont. ENOCH HONSBERGER.

PLEASED WITH THE DICTIONARY.

I received the premium, Chambers' dictionary, and I am highly pleased with it, for which except my sincere thanks. I shall try to secure some more subscribers. We like "The Farmer's Advocate" fine; there always is something worth reading. The discussions of farm topics are very helpful, and sometimes I feel like taking part.
Oxford Co., Ont. T. J. LESLIE.

Annual Parliament of the Dominion Grange.

At the thirty-fourth annual meeting of the Dominion Grange, held in Toronto on November 26th and 27th, weighty problems of special interest to agriculturists were carefully considered by Ontario's leading farmers, and resolutions showing the feeling of this important organization indicate the desires of the rural population. There was a large attendance. A pleasing feature was the high percentage of young men. Three ladies also were present. The chair was occupied by Worthy Master J. G. Lethbridge, of Alliance, and W. F. W. Fisher, of Burlington, was Secretary.

In urging the members to give publicity to the principles of the organization, Worthy Master J. G. Lethbridge said:

"The power and influence of the Grange is being respected; its deliberations were never more closely watched and criticised than they are today. These facts should teach us that we should be moderate in our demands; that we should watch carefully; that we ask for justice, and justice only, and if we are united, no earthly power can come between us and the justice we ask. As loyal citizens we submit to laws which enrich the few at the expense of the many; to laws which exempt from taxation certain classes, increasing the burden of other classes; but while we submit we do not approve, and we conceive it to be our duty to our fellow-agriculturists and our privilege as citizens to use all constitutional means to have such unjust laws removed from the statutes of our country."

The Dominion Senate was discussed, and the abolition of at least half the present number of Senators advocated, with the election of the remainder by the people. The only noticeable change in that body during recent years was the advance of yearly salary from \$1,000 to \$2,500.

RURAL MAIL DELIVERY.

Opinion as to rural mail delivery was expressed as follows:

"On several occasions this Grange has drawn the attention of the Postmaster-General to the great boon free rural mail delivery would be to the farmer, only to be met with the answer that the farmer, only to be met with the answer that with our sparse population the country could not stand the expense, but to our surprise, like a clap of thunder out of a clear sky, came the announcement in September from the Hon. Rodolphe Lemieux, Postmaster-General, that a system of rural mail delivery would be at once introduced, by which all existing mail routes in Canada would be equipped with rural-delivery mail boxes, and at the junction of every concession line with the main road the people would be given the privilege of having boxes located for the receipt and collection of their mail as desired.

"This, no doubt, will prove a great benefit to a large number of farmers along existing routes, and is expected to serve about one-half of the rural population, but could not the same plan be extended at once by the formation of new routes,

to cover all the main roads or crossroads, with the privilege of having boxes at the junction of every concession line, thus serving the whole people. In this way a great number of the small rural post offices could be closed, and the extra expense to the country be very small. We hope this is the beginning of a system which will eventually evolve into the free delivery of mail to the whole rural population of Canada."

Increased railway taxation and a reduction in fares were also suggested. Statistics comparing Michigan and Ontario in this regard were set forth to advantage. Dealing with the automobile question, the speaker advocated a very heavy license or tax on all cars used for pleasure purposes, the greater part of this tax to be devoted to the maintenance of our public highways. He also suggested registration stations on leading highways, where all drivers should be compelled to register.

A STRONG REPORT.

Probably never in the history of the Dominion Grange or of the Farmers' Association, which is now amalgamated with it, was such sound legislation outlined in so forceful presentation as that urged by E. C. Drury, of Crown Hill, in giving the report of the Legislative Committee. Strange to say, also, the discussion on the questions advanced was equally as weak. Only once or twice did the members feel that anything was left undone. It seemed that the opinion was the ground had been fully and thoroughly covered. Other members of the committee were J. G. Lethbridge, W. F. W. Fisher, of Burlington, and J. W. Hyatt, of West Lake. Mr. Drury said that the association wanted no special privileges, no bounty or bonus, no advantages, but they did want the burdens on the farmers lessened. He deplored the action of the Manufacturers' Association, in urging their views on tariff matters as being the views of the Dominion.

AGRICULTURE THE BASIS OF NATIONAL WELFARE.

Before taking up the clauses of the report, Mr. Drury said: "We believe that the national well-being demands a steady increase in the numbers and prosperity of our agricultural class, as the only sure foundation of all other forms of prosperity. We would, therefore, beg to direct the attention, not only of this meeting, but of our statesmen and politicians, and of every patriotic citizen, to the fact that our agricultural population, the only sure indication of the prosperity of the calling is, in every Province east of Manitoba, actually decreasing, while even in the Prairie Provinces the increase of rural population is much slower than that of the towns. In our own Province of Ontario, during the last ten years, there has been an average annual decrease in the rural population of 6,520; while the towns have shown an annual increase of 8,869, and the cities of 17,457. It is the custom to refer this decrease in farm population to the application of improved

machinery, whereby the same number of men can do more work than formerly. Anyone who knows the actual state of agriculture, knows that this saving in men is more than offset by the increased number of men required by the improved forms of agriculture—dairying, stock-raising and fruit-growing. The decrease in rural, and the increase in urban and civic population, in reality represents the fruits of a system of legislation which for years has disregarded the rights of the farming community, and has laid heavy burdens on the agriculturist for the benefit of other classes and individuals. If it continues it is not hard to see, in the ultimate result, disaster, not only to the farmers of this country, but to the nation at large. To resist all unjust demands, and to do what we can to remove the unjust burdens which now fall so heavily on the farming class, is our duty, not only to ourselves, but to our country. In this we would ask the help, not only of all farmers, but of all thoughtful and patriotic citizens, whatever their occupation or political creed."

INCREASED BRITISH PREFERENCE.

The first clause dealt with trade conditions, and asked:

"First, that the British preference be materially strengthened, by still further lowering the duties on goods entering Canada from Britain. There would be no injury to our country at large if the principle of protection, as directed against England, were at once and entirely done away with. Second, that definite steps be taken to eliminate the principle of protection from our tariff generally. We would not urge a sudden change, but would recommend a reduction by a certain definite annual percentage. That any movement on the part of the United States looking toward better trade relations with Canada should be met in a frank and friendly spirit, with a view of bringing about the development of the relations which should exist between kindred peoples occupying territories that interlock along a 4,000-mile frontier."

This clause was carried as read.

BOUNTIES AND BONUSES.

The doing away with bounties or bonuses was dealt with as follows:

"In our opinion, the payment of bounties and bonuses to special industries, or to railways, should entirely cease. We do not think it right, or in the interests of the nation as a whole, that national funds should be used in this way. We have faith enough in our country to believe that any industry or line of railway which is likely, within a reasonable time, to be profitable, will not long want the necessary capital. The payment of bounties in the case of any industry can result in one of two things only—in unduly increasing the profits of already profitable industries, or of maintaining industries which are not, and cannot be, profitable, and which take the capital and men from other profitable industries."

The bonusing of railways in a country as well established as ours is entirely unnecessary. We believe that this practice has a strong tendency to corrupt not only the management and organization of the companies interested, but the political life of the nation. In this regard we would particularly urge that the bounties on iron and steel be discontinued entirely at the end of the term they are granted for, and that no further additions should be made in future to the list of bounty-fed industries. We would also condemn the using of the people's money in the bonusing of an "All-Red Line" of fast passengers steamships. We do not believe this project will be of any material advantage to the nation at large."

Brief discussion dealing chiefly with the deplorable conditions arising from the development of party politics in such legislation was followed by the clause being carried unanimously.

FAVORED INTERESTS INVESTIGATED.

By way of ensuring equal treatment for all interests on their merits the report argued:

"We believe it would be to the advantage of the people at large if all industries or schemes receiving anything from the nation in the form of tariff protection, bounties, or bonuses, were compelled to submit to a searching examination by a competent officer or board, appointed by the Government from whom the favor is received. This investigation should include: 1. Methods of organization; 2. actual capital invested; 3. methods of management; 4. suitability to the country. The results of this investigation should be given, not only to the Parliament, but to the people. This should be extended to the investigation of the existence of combines and trusts, and wherever these are shown to exist, there should be an immediate withdrawal of all bounties, bonuses, and tariff advantage."

It was pointed out that since the intention was only to provide against giving support to young interests, or to avoid increasing the support to going organizations or concerns, the word "receiving," in line 3, should be changed to "asking." After considerable discussion the clause was carried with that amendment. It was made clear that the intention was to have such grants as those to live-stock associations or beekeepers' associations investigated the same as manufacturing concerns.

ACUTE INTEREST IN AUTOMOBILE LEGISLATION.

Legislation regarding the control of the automobile nuisance proved to be the stickler. The recommendation of the committee was:

"That legislation be asked which will: (1) Give to the counties the power to control the use of traffic; (2) Prevent them using the public roads for three days each week and Sunday; and (3) Make the users of autos responsible for all damage caused by their presence on the highways."

Commenting on conditions, Mr. Drury reported: "It is, if possible, better proved now than a year ago, that where horse and auto traffic use the same roads, the horse traffic must suffer. Nor is it more apparent that autos are extending their use among the rural classes. A vehicle which is of no use for five months of the year throughout the greater part of our country, and which is still very expensive, cannot replace the horse. Farmers, particularly in a country where they are taxed for almost every other industry, are not likely to have an auto for summer and a horse for winter. Under these circumstances we do not regard it as just that the farmers, who built, and largely maintain, the roads, should be inconvenienced and endangered by a vehicle which is not a necessity in any case, and which is in most cases merely a plaything for the idle rich."

Several members thought it would be well to strike out section 2. W. F. W. Fisher suggested high license, and J. W. Hyatt thought the license money should go to the municipality to repair damaged roads. W. L. Smith said if counties were given control, free roads certain days of the week would be guaranteed. Mr. Fisher pointed out that the automobile was here to stay, and the object should be to control their running. It could be done by high license, according to weight and running capacity, so that the Government could have something to turn over to the municipalities to cover damage done to roads. That high license would not safeguard the lives of farmers and their families driving on the highways was the opinion of James Fallis. The question should be, what could be done to protect the men who make and maintain the roads?

Lengthy discussion and numerous and varied suggestions resulted in the clause being referred back to the committee. Later it was carried unanimously, with clause two cancelled and the following substituted: "(2) Provide high Provincial license to give reasonable compensation for injury to roads, and that this be distributed to the municipalities in proportion to population."

RAILWAY TAXATION.

Regarding the taxes railway companies are obliged to pay, the report read: "We believe that the present system of railway taxation for municipal purposes is entirely

wrong. That a railway should pay no more tax than is paid on the value of farm lands adjoining, shows a consideration that does not take actual valuation into the slightest degree. The proposal to tax railway property is not by the addition of any amount to their taxation, but a loss in the operation of the roads, or, in other words, a raising of freight rates. It is well known that many railways find it difficult to pay a dividend now, without added expenditures being levied upon them. We believe this objection to be entirely unfounded. That railways are a paying enterprise is shown by the fact that C.P.R. stock is now selling at 177. That some railways are not paying is no logical reason against their equitable taxation. We are not aware that there are any railways that are mismanaged and do not pay their taxes remitted on that account.

"Two instances may be mentioned. The Township of Oro, in the County of Simcoe, has 11 miles of railway. This includes 127 acres of land, and buildings assessed at \$1,750. The total assessment is \$7,367, on which the rate of taxation is the same as on farm property for roads, water, and general and special school rates. This a railway, running through a good country, and worth in actual cost probably \$20,000 per mile, a total of \$390,000, with three stations, including yards, should pay no more in taxation than an average 200-acre farm, is asked."

The well-known champion of railway legislation in regard to taxation, H. J. Pettipiece, M.P.P., an enthusiastic member of the Grange, gave as his opinion that the aim should be an equalization of taxes according to property owned and controlled. In many countries now such is the case. On this continent railways have entered into the development of the country, so that there was no reason why the railway companies should escape taxes. In dealing with the States of the American Union, Mr. Pettipiece stated that each State had a system of its own. In Connecticut a tax of 1% on capital invested valued \$1,220 per mile. In New York a tax on real estate, capital invested and gross earnings, gave the State \$671 per mile. In Indiana and Illinois an assessment, according to value fixed by a special board, returned \$453 per mile to the former and \$453 to the latter. In Michigan, a State about the same size as Ontario, and with similar as regards railways, the plan up to 1900 was on gross earnings. In that year it was changed to assessment by a board. The tax was \$250 per mile. In Canada the total railway taxation in 1907 averaged \$60 per mile, and totaled \$1,370,000. If the taxes were equal to those in the United States this total would amount to over \$8,000,000.

Lines operating in Ontario, and also in adjacent States, were compared. The C.P.R., the C.P.R. and the Michigan Central in the six States neighboring this Province had 5,120 miles of line. In 1907 the taxes on these lines amounted to \$2,444,000, or \$471 per mile. The same railways had in Ontario 5,320 miles, and paid in taxes \$452,000, or \$85 per mile. The earnings of the systems went to the general treasury, and were used to defray general expenses in the United States and Canada. He had heard of \$20,000 being transferred in the books from Ontario to Michigan.

Comparing taxation on farm property with that on railways, Mr. Pettipiece said that the former on actual value of farm property in 1900 showed an assessment of \$5.25 per \$1,000. On railways the same year it was \$1.25 per \$1,000. Taxation according to adjacent farm lands was not right. Pullman cars practically were free from tax. Besides, cars owned by certain large companies escaped.

The time had come when railways should be compelled to pay their just share. It was admitted that without good railway systems our parts would not be opened up rapidly, but Canada's real progress was due to pioneer work of the agriculturist. Taxation would not retard the building of railway lines.

Farmers were referred to as the best business men in the world, individually. Collectively, however, it was hard to control them. Other interests succeeded in keeping them divided against each other. They must learn to stand together for the general interest. His farewell plea was: "Stand together; work together; vote together."

After this logical and brilliant appeal by Mr. Pettipiece, a resolution demanding that railways be taxed according to real value of property, and not merely as so much land was carried unanimously.

DIRECT LEGISLATION

In leading the way for legislation by initiative and popular vote, the committee reported as follows:

"We are in receipt of drafts of three bills, one of which is the Direct Legislation League of Ontario, which is proposed to introduce into the Legislature at its next session.

"As to the principles involved in the bills, that with good and honest representation in Parliament, men desiring the welfare of the people and willing to do the will of the people, it is

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The bonusing of railways in a country as well established as ours is entirely unnecessary. We believe that this practice has a strong tendency to corrupt not only the management and organization of the companies interested, but the political life of the nation. In this regard we would particularly urge that the bounties on iron and steel be discontinued entirely at the end of the term they are granted for, and that no further additions should be made in future to the list of bounty-fed industries. We would also condemn the using of the people's money in the bonusing of an "All-Red Line" of fast passengers steamships. We do not believe this project will be of any material advantage to the nation at large."

Brief discussion dealing chiefly with the deplorable conditions arising from the development of party politics in such legislation was followed by the clause being carried unanimously.

FAVORED INTERESTS INVESTIGATED.

By way of ensuring equal treatment for all interests on their merits the report argued:

"We believe it would be to the advantage of the people at large if all industries or schemes receiving anything from the nation in the form of tariff protection, bounties, or bonuses, were compelled to submit to a searching examination by a competent officer or board, appointed by the Government from whom the favor is received. This investigation should include: 1. Methods of organization; 2. actual capital invested; 3. methods of management; 4. suitability to the country. The results of this investigation should be given, not only to the Parliament, but to the people. This should be extended to the investigation of the existence of combines and trusts, and wherever these are shown to exist, there should be an immediate withdrawal of all bounties, bonuses, and tariff advantage."

It was pointed out that since the intention was only to provide against giving support to young interests, or to avoid increasing the support to going organizations or concerns, the word "receiving," in line 3, should be changed to "asking." After considerable discussion the clause was carried with that amendment. It was made clear that the intention was to have such grants as those to live-stock associations or beekeepers' associations investigated the same as manufacturing concerns.

ACUTE INTEREST IN AUTOMOBILE LEGISLATION.

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After this logical and brilliant appeal by Mr. Pettypiece, a resolution demanding that railways be taxed according to real value of property and not merely as so much land was carried unanimously.

DIRECT LEGISLATION.

In leading the way for legislation by petition and popular vote, the committee reported as follows:

"We are in receipt of drafts of three bills from the Direct Legislation League of Ontario, which it is proposed to introduce into the Legislature at its next session.

"As to the principles involved, it is our belief that with good and honest representatives in Parliament, men desiring the welfare of the nation and willing to do the will of the people, it is

such a scheme is not necessary. It is to be feared that such a plan, by lessening the responsibility of Parliament, would lower its standards, and deprive the nation of much of the advantages it should enjoy in the wisdom and experience of the skilled legislator. On the other hand, if our Parliaments are to be merely the fighting ground of political factions, and if political expediency, and not national well-being, is to be the motive of action with our members of Parliament, we are strongly of the opinion that some such plan is greatly needed. This plan would have one very great advantage, namely, that questions of public welfare would be discussed by the people generally, free from the heat of election times, or the bias of political attachment. In this way a much fairer verdict of the people might be obtained than under the present system. The scheme would also carry with it the better education of the people along public lines.

"On the whole, while your committee are not prepared at this time to give unqualified assent to the plan, we think the scheme well worth considering, and would recommend it to the Grange for further discussion."

INITIATIVE AND REFERENDUM.

The purpose of the suggestion was ably outlined by W. C. Good, of Brantford. In Ontario the Dominion Grange had, he said, to a certain extent, been successful in urging legislation. Still there were many laws not on the statutes that appear to be in the best interests of Ontario citizens. The Dominion Grange and the Farmers' Association, before amalgamation, had asked for cancellation of bounties and the control of automobile traffic. The fact that laws had not been passed in accordance with the request showed that our legislators do not fairly represent the people. In addition, the legislators were under the influence of lobbyists, and were not altogether free to act. Unconsciously, too, the members came under the influences of capitalists and society classes, or those not in sympathy with Government that would suit the mass.

To obviate these difficulties, he proposed a system of direct legislation through the initiative and the referendum. By the former the people by petition had the right to propose legislation. Five or ten per cent. of the electorate should suffice to put this into action. The party in power could have no power to prevent the question being submitted to the people at a special or a regular election. Forced ventilation of questions would be the result. By the referendum system popular opinion against legislation could prevent bills passed by Legislatures coming into force. A certain percentage petition would prevent a law, although passed by Parliament, from coming into force until a vote of the electorate was taken. It was really an optional referendum.

Results of initiative and referendum systems as in vogue in other countries and in some of the States of the American Union showed how popular vote overthrew the action of the legislators. The result was entirely satisfactory, and no danger resulted from fake legislation, because of a comparatively high percentage demanded on the petitions. The organization should be alive to the benefits and co-operate with other clubs or associations in bringing direct legislation into play in Ontario, and, perhaps, throughout Canada. One of the unique advantages was the disentangling of questions on which members of a party held different opinions.

As far as Dominion matters were concerned, W. L. Smith thought the scheme was not workable. For a Province there might be little in the way of success.

Initiative and Referendum was not considered by E. C. Drury to be the ideal form of Government. A good legislature should know more about legislation than "the man on the street." Under the present conditions, Canadian Governments were not representative. Politics in the family and other petty politics made it impossible to obtain popular representation. Political expediency proved to play too important a part. Direct legislation would deal a great blow to partyism, and had many advantages. On questions such as the tariff, nine-tenths of the farmers would vote against the protective system. Nevertheless, lack of machinery to bring initiative and referendum into effect made it necessary to go slow. It was true that Parliaments were more easily worked than the nation. Wealth worked wonders. But the nation never need fear the wealth that had been made honestly.

Gradual improvement in the quality of Legislatures, was mentioned by Mr. Good as a very important advantage. After the direct-legislation scheme was in force for a very few years, it was found unnecessary to use initiative or referendum.

Electors were accused by Mr. McEwing of being guilty for any deficiency in responsible Government in Ontario, or in the Dominion. He wished to know where the money would come from to circulate petitions and to prepare and print literature on questions that might be submitted to popular vote. His advice was to take the question home and discuss it with neighbors for the next twelve months. What the people needed was education. By waiting one year, the in-

creased number of Granges would make it possible to carry the move to a conclusion. In the meantime, agitation and education was the main need.

To fight the lobbyists with lobbying by Grange men, was the suggestion of Mr. Pettypiece. By appointing three good men from the Grange, whose duty it would be to lobby with the representatives of rural constituencies, much could be done to do away with this evil in our Legislatures.

A motion by J. H. Goodfellow asked that the question of initiative and referendum be sent to the sub-Granges for discussion during the year, and report at the next annual meeting. This was carried unanimously.

A more definite move was made by W. L. Smith in a motion that a committee be appointed to draft a bill to deal with railway taxation, and that Mr. McEwing be requested to submit the same to the Legislature, with provision for submission of same for popular vote, together with any substitute which the Legislature may wish to submit. This also was carried, and H. J. Pettypiece, W. L. Smith and W. C. Good were appointed a committee to draft the bill.

Anxiety to co-operate with the Social and Moral Reform Association of Canada, led to a resolution urging that body to take steps to have the question of direct legislation before local councils, so that the members could discuss it before the convention, on December 8th.

FURTHER LEGISLATION ASKED.

Clauses dealing with civil-service employees, graft in the Government departments, candidates' deposits, lavish expenditure of public moneys, sales of C.P.R. stock and forestry were dealt with, and carried unanimously, without discussion, as follows:

"We regard as essential to the political purity of our nation the reform of our civil service. Admission to the civil service should be based on merit and ability, adjudged by character, and by a competitive examination. Political patronage as applied in this direction should be abolished.

"We believe that wherever graft and jobbery is disclosed in Government affairs, that not only should Governmental employees who have profited in any way be dismissed from office, but they should be punished as defaulting bank clerks and others are punished. Not only should these be punished, but all those who, not being employees of the Government, have assisted or shared in defrauding the country, should be similarly punished. Where corruption and fraud of this kind have been extensive in any department of Government, we believe the resignation of the Minister in charge is called for.

"We believe the law requiring candidates for a seat in Parliament to make a deposit of \$200, which is forfeited if the candidate does not poll a certain percentage of votes, is unjust and unwise. No possible advantage can accrue from this requirement, and it undoubtedly tends to perpetrate and fasten upon the country the party system, by penalizing any non-party candidates who may be offered. We regard partisanship as one of the great curses of this country, and unhesitatingly condemn this requirement as tending to fasten it upon the country, and as having no justification for its existence.

"In both Dominion and Provincial Governments we are alarmed at the continued increase of expenditure. We believe much of this expenditure is uncalled for, and would urge upon our Governments the necessity of going slow, and of laying up something toward the reduction of our already too large national debt. The increasing expenditure for military purposes in our country, we regard as useless and dangerous. The best defence of our nation lies, not in an expensive and ineffective headquarters' staff, nor in an army of 'fun and feathers,' but in righteous dealings, and a steady, prosperous farm population, which would, in case of need, furnish the best basis of a national defence.

"The custom of the C.P.R. of allowing present stockholders to buy issues of new stock at par is brought to our notice. The stock thus purchased is worth at the time of purchase from 150 up, and the selling of it at par is practically equal to the adding of so much water to the stock of the company. This would, perhaps, be the company's own business, were it not for the fact that Canada is under an agreement with the company, entered into in 1880, not to supervise and control freight rates over the company's lines till such time as it shall be earning 10 per cent. on its capital stock. The issue of stock at less than its market value delays the time when such control may be exercised, and thus it is a matter of national concern to put a stop to this practice. We believe that action should be taken immediately to stop these issues of stock to shareholders, and to compel the sale of all new issues of stock at the current market value.

"We are pleased to note in the appropriations of the Ontario Government of the past year an item of \$5,000, to be applied to reforesting some of the waste lands of this Province. We believe of the waste of public advantage, and wish this to be a work of public advantage, and wish to express our approval of what has already been done, and our hope that before long our Province

may have a comprehensive forestry policy, which will assure the permanence of this, one of our greatest national resources."

EDUCATIONAL MATTERS.

The committee on education, through J. J. Morrison, of Arthur, reported satisfaction at Ontario's educational system in general. Increased efficiency of teachers had not come as rapidly as had been hoped for. Continuation-class work was commended. Instruction in agriculture in certain county High Schools by specialists, also, was sure to have beneficial results. The legislative committee was requested to take steps that would lead to the formation of trustee associations in every county of the Province. A few already existed, through individual effort. Representatives of these had attended the Ontario Educational Association's annual convention. Every county should be represented there.

Many delegates expressed themselves strongly in favor of minimizing the military aspect of drills and features adopted in schools and colleges. The following resolution was passed after lengthy discussion: "We would again strongly protest against all methods either designed or calculated to develop military spirit among our school children, and we would impress upon our educationists the importance of directing instincts of loyalty and patriotism towards the service of the state in behalf of peace, rather than of war."

The abandonment of competitive examinations, where practical, also was advised. The institution of co-operative effort was considered more advisable.

RESOLUTIONS COMMITTEE.

Many resolutions intended to lessen the burdens of agriculturists, without unduly burdening other interests, were placed before the meeting by the Resolutions Committee. An Essex delegate asked that amends be made to the Municipal Drainage Act, so that cases coming before the drainage referee be heard at the town hall nearest the drain in dispute, rather than at the county town; also, that the services of a court-crier and other unnecessary officials be dispensed with at such cases. A resolution to that effect was passed. A suggestion to have wholesalers licensed, and compelled to sell the unbroken package to any citizen who offered the cash, was laid over for a year. A resolution requesting that subjects to be discussed at the annual meeting be placed before the local Granges in time for consideration before the delegates were sent, and also to have copies of the programme printed for distribution when delegates arrived, was placed on the books.

DOES NOT FAVOR SUFFRAGETTES.

Dealing with the subject, "Women and the Home," Miss H. Robinson, of Middlemarch, referred to the influences for good of women in local Granges. There always was much for women to do by working quietly in the home—not after the manner of suffragettes. Local Granges were urged to send lady delegates to the annual convention, so that they could become familiar with the questions of particular interest to the men.

OFFICERS AND COMMITTEES.

The election of officers for 1909 resulted as follows: Master, E. C. Drury, of Crown Hill; Overseer, Miss H. Robinson, of Middlemarch; Secretary-Treasurer, J. G. Lethbridge, of Alliance; Lecturer, J. L. Warren, of Acton; Steward, Peter Gilchrist, of Gamebridge; Assistant Steward, J. J. Morrison, of Arthur; Chaplain, Jas. Fallows, of Newbridge; Gatekeeper, Jas. A. Glen, of Glenworth; Ceres, Miss E. Fatcher, of Middlemarch; Pomona, Miss J. McEwen, of St. Thomas; Flora, Miss A. M. Phelps, of Whithy; Lady Assistant Steward, Mrs. T. Morecomb, of Whithy; Executive Committee—E. C. Drury, J. G. Lethbridge, Jas. McEwing, R. A. Sutherland (Stroud), and W. L. Smith.

The committees for 1909 will be made up as follows: Legislative—W. L. Smith, of Toronto; Jas. McEwing, of Drayton; and W. F. W. Fisher, of Burlington. Education—W. C. Good, of Brantford; J. J. Morrison, of Arthur; and Wm. Goodfellow, of Craigvale. Good of the Order—Miss H. Robinson, of Middlemarch; Wm. Webb, of Middlemarch, and J. L. Warren, of Acton.

BALANCE ON HAND.

The books of the Secretary and Treasurer, when duly audited, showed a balance of \$358.37 on hand. Twenty-two new Granges had been formed during the year. Lack of funds hampered organization, but there was a bright outlook for future growth.

PRIZE CANADIAN FRUIT.

According to cable despatches from the Old Country, Canadian fruit has made creditable winnings at the Royal Horticultural Show in London, England. Nova Scotia, British Columbia and Ontario each stood high. Ontario won the gold medal for general fruit display, this being the highest award at the show.

FOOT- AND -MOUTH DISEASE QUARANTINE.

Up to the end of last week, no further alarm had been caused by the outbreak of foot-and-mouth disease in the United States, excepting that Michigan, and, according to conflicting reports, either New Jersey or Maryland, in addition to New York and Pennsylvania, had been placed under quarantine. East Buffalo stock-yards will receive stock for local consumption. According to agreement between officers of the Live-stock Association and Federal and State quarantine officials, this will apply only to cattle and sheep for slaughter. Besides, the stock must come in disinfected cars, and be unloaded in disinfected pens.

In last week's issue of "The Farmer's Advocate," an inadvertent error in a communication from the Dominion Department of Agriculture gave the impression that importation of live-stock into Canada from all the States in the American Union had been prohibited. This rule applied only to stock that had been in or had passed through the States under quarantine. This prohibits the transit of trade going through Canada in bond. The importation of hollers, etc., is prohibited.

Objections having been raised by railway companies that the quarantine regulations prevented the shipment of beef from the West in bond through Canada, the Cabinet Council authorized the shipment of dressed carcasses and other meat products in bond on Canadian railways.

On Saturday, November 25th, the Dominion Government passed an Order-in-Council closing Canadian water routes to American cattle. No vessel carrying live stock and leaving any United States port will be allowed to touch at any Canadian port. No Canadian cattle will be allowed to leave the country for export to Europe except through Canadian ports. No vessel having a Canadian port carrying cattle from the United States will be allowed to carry Canadian cattle as part of her cargo. No vessel that has touched at a port in a prohibited State of the United States within twenty-one days will be allowed to take cattle from Canada. The Canadian railroads are co-operating with the Government to prevent the introduction of the disease into this country. It has been reported that the C. P. R. has refused to accept at any point American cattle for export.

DR. BANG ON TUBERCULOSIS.

With regard to bovine tuberculosis, Dr. Bernhard Bang's beliefs are summarized as follows. He believes:

In constant danger of the transmission of disease by milk from beast to beast, and beast to man. (In this and the following points his opinions are at variance with those of Dr. Koch.)

In particular danger to children and animals from milk from tuberculous cows.

In constant war on bovine tuberculosis.

In the tuberculin test. In the impossibility of injuring cattle or inoculating them with disease by the tuberculin test; not in the indiscriminate slaughter of infected animals, but rather in isolating them and using them for breeding purposes, pasteurizing all milk from them fed to either man or beast; in short, the Bang system.

In clean raw milk. In pasteurization, because clean raw milk is not generally obtainable under present conditions.

In education and persuasion, rather than in force to work reform, as embodied in law.

In telling the public of the dangers of infected milk, and urging them to use simple remedies.

ONE ONTARIO BREEDER AT CHICAGO.

By allowing himself to be sealed in the car with his Dorset Horned sheep, Jas. Robertson, of Milton, will exhibit at the International Show at Chicago. It was only in this way that the gauntlet of quarantine in Michigan could be run. The car had to be sealed, and the sheep must be kept in condition for the show, so the veteran breeder had himself locked with the sheep during the trip.

Among the newly-appointed officers of the General Assembly of the International Institution of Agriculture, now in session at Rome, Italy, is Hon. Sydney Fisher, Minister of Agriculture for Canada, who is honored with a Vice-Presidency.

Press despatches state the Provincial Cabinet of the Quebec Government has decided that a School of Forestry is required in that Province. A bill dealing with the matter is proposed for introduction at the next session.

Cherry Valley cheese factory, in Prince Edward Co., Ont., paid the patrons \$2.12 per cwt. for October milk.

Women's Institute Convention Programme.

We print below the programme of the annual convention of Ontario Women's Institutes, to be held in Massey Hall, Agricultural College, Guelph, Ont., December 9th and 10th, 1908. Superintendent Geo. A. Putnam feels satisfied that the programme is particularly good this year, and that those who attend the convention will be much interested. Special attention is drawn to the fact that Miss Van Rensselaer, of Cornell University, is to give addresses at the convention. Miss Van Rensselaer gave an address at the recent meeting of the American Association of Institutes and the Granges of New York State, and delighted all by her splendid effort. The details of the programme are as follows:

PROGRAMME.

Wednesday, December 9th.
Morning Session.—Hon. James S. Duff, Minister of Agriculture, presiding.
 10.00—National Anthem. Invocation: Rev. R. J. M. Glassford, Guelph. Address of Welcome: Pres. G. C. Creelman, G. A. C., Guelph. 10.30—Reply to Address of Welcome: Mrs. W. J. Hunter, Brampton. 10.40—Review of Year's Work: Mr. Geo. A. Putnam, Superintendent. 11.00—Financing the Institutes: Grants; special means of raising funds; expenditure of funds, etc.
Afternoon Session.—Miss M. Yates, Guelph, presiding.
 2.00—Three-minute reports from fifteen districts, followed by discussion and question drawer. 3.00—Vocal Solo: Miss Gardner, Kemble, Ont. 3.05—Address: "Problems of the People," Mr. C. C. James, Deputy Minister of Agriculture. 3.45—Address: "The Value of Farm Home Life," Miss Martha Van Rensselaer, Cornell University, Ithaca, N. Y.
Evening Session.
 8.00—Public Meeting in City Hall: (Separate programme).

Thursday, December 10th.

Morning Session.—Mr. Geo. A. Putnam, presiding.
 10.00—Address and Demonstration: "How to Conduct an Institute Meeting," Miss S. Campbell, Brampton. 10.30—Address: "Household Conveniences," Miss Martha Van Rensselaer, Cornell University, Ithaca, N. Y. 11.15 to 12.00—Question Drawer: Appointment of Representatives on Institute Committee.
Afternoon Session.—Mrs. Thos. Shaw, Hespeler, presiding.
 2.00—Address: "How the Macdonald Institute May Help the Women's Institutes," Miss M. U. Watson, Macdonald Institute, Guelph. 2.20—Address: "House Plants," demonstration in potting; Mr. Wm. Hunt, O. A. C., Guelph, Ont. Music. 3.00—"The Milk Problem": Care of Milk, Prof. Dean; Bacteriological Contamination, Prof. S. F. Edwards; Dangers of Milk, Dr. MacMurphy; Milk and Children, Mr. Jas. Acton, Food Value, Prof. Harcourt.

The attention of delegates is drawn to the fact that on Tuesday evening, December 8th, at 8 o'clock, a special Poultry Session will be held in connection with the regular Winter Fair programme. Miss M. Yates, one of the regular Institute workers; Prof. W. R. Graham, of the Agricultural College, Guelph, and F. C. Elford, of the Macdonald School, St. Ann de Bellevue, Que., will take part in the programme. This should prove of much interest and value to the delegates. The admission to the Fair is 10 cents for ladies.

Prominent speakers have been secured for the public meeting on Wednesday evening, and Institute delegates will find much of interest and value in the addresses to be given.

NOTICE TO DELEGATES.

Passenger Rates.—From points in Ontario west of and from Kingston, Sharbot Lake and Renfrew, but not west of Azilda, single fare for the round trip, good going December 5th to 11th, good to return up to and including December 14th. Certificates not required within this territory.

From the territory east beyond Kingston and Sharbot Lake, and west beyond North Bay to Port Arthur, single fare, on Standard Convention Certificate plan. Tickets may be purchased between December 4th and 10th, good to return to Guelph on the 11th. Certificates to be vised

and fee of 25 cents charged for each certificate vised.

Accommodation. — Arrangements have been made for accommodation for lady delegates attending the convention, in private houses, at reasonable rates. On arrival at Guelph, delegates will please report at City Hall.

The delegates will have an opportunity of visiting the various departments of the Agricultural College, including the Macdonald Institute.

The names and addresses of delegates should be sent to the Superintendent. Badges and programmes will be mailed to all whose names and addresses are received up to and including December 3rd.

BOOK REVIEW.

A NEW BOOK ON BACTERIA.

The latest addition to the Rural Science Series, published by the Macmillan Company, bears the title, "Bacteria in Relation to Country Life." Its author, Dr. Lipman, is Bacteriologist at the New Jersey Experiment Station.

This is not intended as a text-book for students or specialists, but a treatise that within the compass of something less than 500 pages outlines in non-technical language for farmers, housekeepers, dairymen and members of boards of health, the history of bacterial investigation along several lines of importance to these classes of persons, and summarizes the results that have been reached up to the middle of the current year. The important part played by bacteria in the making and spoiling of dairy products is, in a more or less intelligible way, known to almost every reader, but of their relation to the processes of canning and preserving food, making pickles, sauerkraut, bread, beer, wine, vinegar, etc., few people have any knowledge.

Dr. Lipman deals, as might be expected, with the problems of contamination and purification of drinking water, and the treatment of sewage, but the topic which he discusses at greatest length is the relation of bacteria to the fertility of the soil. The most effective means of treating large volumes of sewage is shown to be in tanks specially constructed to favor the multiplication and activity of certain kinds of bacteria. The results in new tanks, or beds, are improved by inoculating them with sewage from old tanks in active operation. In the present state of knowledge, it would appear that in a field where barnyard manure or humus is nourishing a crop, there are at least three armies of different species of bacteria at work. One of these is converting the straw, humus, etc., into ammonia, another the ammonia into nitrite, and a third the nitrite into nitrate. The nitrate is readily soluble, and if plants are not growing in the soil to take up the nitrate as it is formed, this valuable plant food is liable to be drained away. A wheat field unprotected by a cover crop, may thus lose more nitrogen after the wheat ripens than the crop took from the soil.

After reviewing the history of soil and seed inoculation with pure cultures of bacteria, and the disappointment that has attended the use of "Nitragin," "Alinit," and the "Cotton-cultures" of the U. S. Department of Agriculture, Dr. Lipman concludes with the statement that while the future may yet see gratifying results from the use of cultures of nitrobacteria at present, the best promise lies in stimulating the bacteria in the soil by soil-improvement. Improved conditions of moisture, aeration and humus, and increased supply of suitable mineral food, will increase both the number and activity of the bacteria and thereby promote more nitrification and nitrogen-fixation. "The mere introduction of efficient bacteria, of whatever class, without previous soil improvement, will fail to yield the desired results, since the bacteria introduced will soon deteriorate under unfavorable soil conditions."

This book, in neat cloth binding, with gilt stamp, well illustrated is sold at the net price of \$1.50, or \$1.66 postpaid. It will be given as a premium for three new subscriptions to "The Farmer's Advocate."

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, \$1.00 must be enclosed.

Miscellaneous.

MAMMOTH CLOVER.

I am writing to you to get some information about Mammoth clover. Have written to you before and have been greatly benefited by your prompt answers.

1. Will the second year's growth of Mammoth clover produce seed same as the first year's crop?
 2. If so, how much does it produce, generally?

A SUBSCRIBER.

Ans.—There is no physiological reason why the second crop (third year of growth) of Mammoth or any other clover should not produce seed as well as the first crop (second year's growth), providing the growth were equally luxuriant. This, however, is scarcely likely to be the case. Mammoth clover is a biennial, with a degree of perennial tendency. In fact, it has been called a short perennial. In other words, it is like common red, only that the perennial habit is a little more strongly developed. When not allowed to produce seed, Mammoth clover will often persist fairly well into the second year of cropping, but with this, as with red clover, seed production tends to shorten the life of the plant. On the other hand, the stand may be in a measure renewed by seed lost in harvesting. If our correspondent's field looks promising next spring, he might do well to leave it, otherwise he had better plow it up.

2. An ordinary yield of Mammoth clover seed would be from three to five bushels per acre, and in some cases less, though instances are on record where as much as 11 or 12 bushels per acre have been reaped.

TRADE TOPICS.

In this issue will be found the advertisement of the celebrated Dain all-steel pull-power hay press. Look it up if interested and write Messrs. Dain Mfg. Co., Preston, for particulars.

Lime-Sulphur Solution, a most effective and economical spray material for winter and summer use for the destruction of San Jose scale, oyster-shell bark-louse, and fungi, in orchards, is advertised for sale in these columns, in a prepared state, quantity and quality guaranteed, by the Niagara Sprayer Co., Middleport, N. Y. This should prove a great convenience to orchardists and farmers generally.

CEMENT BLOCK MACHINE.

Cement blocks are becoming increasingly popular as building material for dwelling houses as well as for basement walls and silos. The combination cement building-block machine, manufactured by Mr. Thos. McQuain, of Davisville, North Toronto, Ont., and advertised in this paper, has gained an excellent reputation for turning out blocks having a face which is a capital imitation of stone and quite as durable. By the use of this machine, building blocks can be readily made on the farm, or in town, just where they are needed to be used. Parties contemplating building, or undertaking to manufacture building material for sale, should write or visit Mr. McQuain, and secure the necessary information regarding the machines.

GOSSIP.

SALE DATES CLAIMED.

Jan. 1st, 1909—C. R. Gies, Heidelberg, Ont.; Shorthorns and Poland China Pigs.
 Jan. 14th—C. D. Wagner, Enterprise, Ont., Shorthorns.
 Feb. 3rd, 1909—W. C. Booth, Freeman, Ont.; and J. A. Watt, Saum, Ont., Shorthorns. Sale at West Toronto Stock yards.

AYRSHIRES FOR ALBERTA.

Mr. A. H. Trimble, Red Deer, Alta., recently visited the Province of Quebec and selected from among prominent Ayrshire herds, 25 head of choice stock, ranging in ages from six months to mature cows. His largest purchase was from the "Isaleigh Grange" herd at Banville. At their dispersion sale, held on Nov. 12th, Mr. Trimble purchased eleven young heifers and one bull. Worthy of special mention among them is the two-year-old heifer, Isaleigh Gem—27090—by Isaleigh Bloom o' the Heather—20523—. This is a most promising heifer, and is from a choice line of milkers. In the yearlings is Isaleigh Sandilands—27104—, by Glen of Montebello—20657—, dam Miss Sandilands—8934—, a splendid type of an Ayrshire, and has qualified in the Canadian Record of Performance test with a record of 8,580 lbs. of milk and 312 lbs. of butter-fat. The daughter is built along the same lines as her dam, and should be a grand milk and butter cow when she develops. Several of the younger heifers are sired by the noted stock bull, Netherhall Robin Hood—25782—, imported, recognized to be one of the best dairy bulls ever imported from Scotland. The bull calf, Isaleigh Major—27118—, by Glen of Montebello, is a likely chap, and with his good breeding behind him, should be a good stock-getter.

Two cows were also purchased from the herd of James Boden, who has rented the Isaleigh Grange Farm for a term of years. Mollie of Elm Shade—14020—, by Scotland's Glory—10774—, imported is dam, is of fine type, having good size, as has her mate, Lizzie of Ste. Anne—22298—, from the noted prizewinner, Howie's Fizzaway—16721—, (Imp.).

From the herd of Mr. R. N. Res, Howick, he selected the imported bull, Barcheskie Kingswaif, just a few months out of Scotland, bred by Andrew Mitchell, Barcheskie. Here was also selected a heifer of merit in Burnside Violet 4th—26576—, sired by the champion Ayrshire bull of Canada and the United States, Barcheskie King's Own—20726— (Imp.). Both the bull and heifer are prizewinners, he being first in his class at Toronto Exhibition this fall, and the heifer was first at Calgary, Winnipeg and Regina Exhibitions last summer.

From John Taylor, Kelso, was purchased a choice yearling bull, Dairy King of Kelso—26837—, also a prizewinner, as he was first in a large class at Huntingdon Fair this fall.

From one of the oldest-established herds in Quebec, that of the Secretary of the Canadian Ayrshire Breeders' Association, W. F. Stephen, Huntingdon, he selected six head, including the cow, Peace—11129—, sired by the celebrated Uncle Sam of Trout River—6974—, from the noted Nellie Osborne, the champion cow at the Columbian World's Fair in Chicago, 1893. This is a fine type of cow, large, of good form, and splendid quality, carrying a perfectly-balanced udder, with large, well-placed teats. She has a record of nearly 9,000 lbs. of milk and 400 lbs. of butter within a period of ten months. The yearling heifers, Springbrook Blossom—26109—, sired by Lessnesock Crown Prince—19508— (Imp.), a bull of great dairy qualities. Her dam, Delta Maid—11118—, has a record of over 8,500 lbs. of milk and 370 lbs. of butter. Springbrook Grace, with same sire, and as dam Irene 2nd—11132—, with a record of about 9,000 lbs. of milk and 430 lbs. of butter. These cows were also sired by Uncle Sam of Trout River. Uncle Sam, although from a sire and dam imported from Scotland, gets his Yankee name from being the first calf dropped from Canadian stock in Uncle Sam's territory, while his dam was being exhibited at the World's Columbian Exhibition, Chicago.

Also, from the herd of Messrs. Hyde Bros., Huntingdon, was selected a choice bull calf, which received first prize wherever exhibited this fall, Lorna's Choice of Willow Bank—27288—. He is from a sire and dam from the Stephen herd. In all there were six males and nineteen females, a choice lot, of good size, well-marked, and from the best milking stock. Such a lot of Ayrshires should lay a foundation of splendid dairy stock for that part of the West. Mr. Trimble believes there is a great future before the dairy industry of that country, and has every confidence that the Ayrshire is bound to be the future dairy breed of Alberta.

Incorporated 1885.

THE TRADERS BANK OF CANADA

Do Your Banking by Mail

if you live far out of town, and save yourself long drives and much inconvenience.

You can open an account—deposit or withdraw money—discount notes—arrange for collections—or do any ordinary business with this Bank by Mail—with safety and dispatch.

One Dollar opens a Savings Account on which Interest is paid or added 4 times a year.

One of the 80 branches of this Bank is convenient to you. Your account is invited.

MARKETS.

TORONTO.

LIVE STOCK.

At West Toronto, Ont., on Monday, November 30th, receipts numbered 630 cattle, quality fair to good; prices firm; no exporters on sale. Picked butchers', \$4.60 to \$4.80; best loads, \$4.25 to \$4.60; medium, \$3.80 to \$4.10; common, \$2.80 to \$3.70; canners, \$1.50 to \$2.25; milkers and springers, \$4.00 to \$6.00; calves, \$3.00 to 6.50 per cwt. Sheep, \$4.25 to \$3.60 per cwt. Lambs, \$4.25 to \$4.85. Hogs, \$6.10 for selects, fed and watered at market, and \$5.85 to drovers, f. o. b. cars country.

REVIEW OF LAST WEEK'S MARKET.

Receipts of live stock last week totalled 306 cars; 3,737 cattle, 9,921 hogs, 4,650 sheep and lambs, 206 calves, and 61 horses. The run of hogs was the largest of any week this year, if not in the history of the markets.

Owing to late heavy receipts, and local dealers having obtained large supplies, trade was dull, with low prices for all classes of beef cattle, excepting a few prime stall-feds, which were very scarce.

Exporters.—There were few export steers on sale, and what were offered were bought for butcher purposes by one of the abattoirs at \$5.10 per cwt., for 9 steers weighing 1,300 lbs. each. Bulls sold at \$3.50 to \$4.25 per cwt. Exporters were not wanted, owing to scarcity of shipping space.

Butchers'.—The bulk of the cattle offered as butchers' were common to medium quality, and slow of sale. A few of the best sold readily. The choicest of a very poor market-lot sold up to \$4.60; loads of the best, \$4 to \$4.37; medium, \$3.60 to \$3.90; common, \$2.50 to \$3.50; canners, \$1 to \$2.

Feeders and Stockers.—Receipts moderate; trade steady to strong for the best quality steers. Common stockers were slow sellers. Prices ranged as follows: Best steers, 950 to 1,100 lbs. each, \$3.25 to \$4; best steers, 800 to 900 lbs., \$2.90 to \$3.75; stockers, 600 to 700 lbs., \$2.90 to \$3.15; common stockers, 500 to 600 lbs., \$1.75 to \$2.20 per cwt.

Wool and Springers.—A good beginning

of the week, trade in milkers and springers of good to choice quality was brisk, some selling as high as \$65 and \$70 each, but at the close the market was easier on account of the demand easing off from Montreal and Quebec, which caused a decline of at least \$5 per head. Good to choice cows, \$40 to \$60 each; common to medium, \$25 to \$35 each.

Veal Calves.—Few calves are being offered, which, as a rule, are of poor quality; some of them being four or five months old, weighing from 300 to 400 lbs. each, with little flesh; these sell at \$3 per cwt. Medium to good calves, 150 to 200 lbs., sell at \$5 to \$6.50 per cwt.; few, however, sell for more than \$6 per cwt.

Sheep and Lambs.—Receipts were moderate, with prices easy, as follows: Export ewes, \$3 to \$3.40 per cwt.; rams, \$2 to \$2.50; lambs, \$4 to \$4.40 per cwt.

Hogs.—Prices were steady to firm, at \$6.25 per cwt. for selects, fed and watered at the market, and \$6 to \$6.15 per cwt. to drovers, for hogs, f. o. b. cars at country points. In some parts of Ontario, drovers report \$6 as the price paid to farmers.

Horses.—There was little doing at any of the horse markets last week. J. Herbert Smith, of the Union Horse Exchange, reported a quiet trade during the week. Prices were unchanged as follows: Drafters, \$140 to \$180; general-purpose and expressers, \$140 to \$200; wagon horses, \$100 to \$130; drivers, \$100 to \$150; serviceably sound, \$40 to \$80. Mr. Smith stated that he does not look for much improvement before the new year.

BREADSTUFFS.

Wheat.—No. 2 white, 95c. bid; No. 2 red, 94c.; No. 2 mixed, 93c. Manitoba—No. 1 northern, \$1.07 to \$1.07; No. 2 northern, \$1.04 to \$1.04; at lake ports. Rye—No. 2, 76c. Peas—No. 2, 85c. Oats—No. 2 white, 40c.; No. 2 mixed, 39c. Barley—No. 2, 58c.; No. 3X, 55c.; No. 3, 54c. Corn—Old, 75c.; No. 2 new, yellow, 71c. to 72c., Toronto freights. Bran—Car lots, in sacks, f. o. b. cars at Toronto, \$22. Shorts—Car lots, in sacks, f. o. b. cars, Toronto, \$24. Buckwheat—No. 2, 55c. patent, \$3.50 bid, Ontario, 90 per cent. patent, \$3.50 bid, for export; Manitoba patent, special brands, \$6; second patents, \$5.40; strong bakers', \$5.30.

COUNTRY PRODUCE.

Butter.—The butter market is fairly well supplied, but there is too much of inferior and too little of prime, which causes prices for good to be firm. Creamery rolls, 27c. to 30c.; creamery solids, 26c. to 27c.; separator dairy, 25c. to 26c.; store lots, 23c.

Eggs.—New-laid, scarce, and sell from 30c. to 33c.; cold storage, 24c.

Cheese.—Market steady, with prices unchanged. Large, 13c.; twins, 14c.

Honey.—Receipts moderate, but plenty for demand, at 10c. to 11c. for extracted; combs, \$2.25 to \$2.75 for choice clover, per dozen sections.

Potatoes.—Market a little firmer, at 60c. to 63c. per bag, for car lots of Ontario, on track at Toronto.

Poultry.—Receipts equal to demand, but the general quality is not as good as desired. Prices about steady, as follows: Turkeys, 12c. to 13c.; geese, 8c. to 9c.; ducks, 9c. to 10c.; chickens, 9c. to 10c.; fowl, 7c. to 8c.

Hay.—Receipts larger, with prices easier, as follows: No. 1 timothy, baled, in car lots, at Toronto, \$10.50 to \$11.50; No. 2, \$9 to \$10.

Straw.—Baled, in car lots at Toronto, \$7 to \$7.50.

Beans.—Market steady and prices unchanged at \$1.80 to \$1.90 for primes; hand-picked about \$2.

HIDES AND WOOL.

E. T. Carter & Co., 85 Front street East, Toronto, have been paying for No. 1 inspected steers, 60 lbs. and up, 9c.; No. 2 inspected steers, 60 lbs. and up, 8c.; No. 1 inspected cows, 8c.; No. 2 inspected cows, 7c.; country hides, cured, 8c. to 8c.; calf skins, city, 12c.; calf skins, country, 10c. to 12c.; horse hides, No. 1, \$2.75; horse hair, per lb., 29c. to 30c.; tallow, 5c. to 6c.; lamb skins, 5c. to 6c.; deer skins, green, 12c.; raw furs, prices on application.

SEED MARKET.

The William Bonnie Seed Company report that the demand for red clover of choice quality is 25c. per bushel dearer. Many farmers are taking advantage of low prices by purchasing their supplies for next spring sowing, and farmers who have seed to market are seemingly in no hurry to sell. Prices are quoted as follows: Alsike, fancy, \$7 to \$7.25; No. 1, \$6.50 to \$6.75; No. 2, \$6 to \$6.25; red clover, \$4.50 to \$5.25; timothy, \$1.30 to \$1.60.

MONTREAL.

Live Stock.—Shipments from port the third week of November amounted to 6,708 cattle and 160 sheep, this making almost the last shipments for the season. The season has been a fairly satisfactory one for exporters, prices ruling generally steady on the other side. The outbreak of the foot and mouth disease in the States of New York and Pennsylvania, and the placing of an embargo on the ports of those States, has added strength to freight rates from other Northern ports, and space will probably be pretty well taken up.

The weather at Montreal has been unfavorable and unseasonable, and as a result prices were a little on the easy side, especially as the stock offering averaged poor in quality. Demand for choice cattle was sufficient to absorb supplies, some being taken by out-of-town buyers. Choice cattle were selling at 4c., good at 4c. to 4c., medium at 3c. to 4c., or a fraction less, common being 2c. to 3c., and inferior down to 1c. per lb. Lambs show a decline in price, owing partly to the lack of export demand, and also to the weather. Sales were taking place at 4c. to 5c. per lb., for choice, and at 4c. to 4c. for common grades. Supplies of sheep were small and prices steady, at 3c. to 4c. for good to choice, and 3c. to 3c. for common. Calves ruled from \$2 to \$8 each. Hogs were in good demand and prices ruled steady to firm, owing to the scarcity of desirable stock. Sales of selects were made at 6c. to 6c. per lb., and purchases for delivery in a few days at 6c., weighed off cars.

Horses.—Col. W. J. McLaughlin, Imperial Remount Officer, was here, offering \$200 for troopers' horses and \$250 for superior animals. A celebrated racing horse, "Sea Horse II," has been purchased by a Montrealer, for a syndicate who are importing him for breeding purposes.

The general market continued dull: Heavy draft horses, 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250; good blocks, 1,300 to 1,400 lbs., \$175 to \$200; small or inferior animals, 1,000 to 1,100 lbs., \$100 to \$150; broken-down horses, \$50 to \$75 each, and choice saddle or carriage animals, \$300 to \$500.

Dressed Hogs and Provisions.—Country-dressed hogs were still scarce. Prices: 8c. to 8c. per lb., while abattoir-dressed, fresh-killed hogs were 9c. to 9c. per lb.

Poultry.—Market was adversely affected by mild weather. Stock has been received here which is green, and which the inspector would confiscate if it came under his observation. Prices were easy, and lower than the week before. Turkeys must be good to bring over 12c. per lb., and very fancy to bring over 13c., a few having sold at 13c. Ordinary fowl changed hands at 6c. and 7c. per lb., and really good chickens at 8c. to 9c. Very fair geese sold at 8c. to 9c. per lb., while ducks ranged from 9c. to 11c.

Potatoes.—Quebecs, 70c. to 75c. per 90 lbs., track, Montreal, and Green Mountains at 75c. to 80c., the latter being quoted at a cent a pound, in 50-bag lots, taken from cars, and at about \$1 in single bags.

Eggs.—Market in good shape and demand active. No. 1 stock was 22c. to 23c. per dozen, candled, while selects were 26c., and fresh-laid boilers, 33c.

Butter.—Country boards closed. Stocks here fairly large, probably sufficient for requirements. Fancy October stock, however, scarce; dealers were getting 27c. per lb. for it in 25-box lots, 28c. for 5-box lots, and 28c. to 28c. for single packages. November stock, finest, 27c. to 27c.

Cheese.—Country boards over, and, after the close of navigation expected to take place this week, the markets will probably come in for a quiet time. Dealings last week appeared to be confined to tail-ends, these changing hands at 11c. to 11c. per lb. for Quebecs, and 12c. to

12c. for Ontarios. October goods would probably have brought at least 1c. more than the above. For the third week of November, shipments from this port amounted to 87,000 boxes, against 61,000 the corresponding week of last year.

Grain.—46c. to 47c. per bushel, for No. 2 Manitoba oats, carloads, in store, and 45c. to 45c. for No. 3, and for No. 1 feed. No. 2 Ontarios, 44c. to 45c., No. 3 being a cent less, and No. 4 yet a cent less. No. 3 yellow corn was 73c. to 74c., and No. 2 buckwheat 58c. to 60c. per bushel, carloads, in store.

Feed.—Bran very firm, at \$21 to \$21.50 per ton, in bags. Shorts were lower, at \$23.50 to \$24 per ton, demand being light. Some demand for cotton seed, at \$33 per ton, and for oil cake at \$32, and for gluten meal at \$25 per ton.

Hay.—\$12.50 to \$13 per ton for No. 1 timothy; \$11 to \$11.50 for No. 2 extra; \$10 to \$10.50 for No. 2 ordinary; \$9 to \$9.50 for clover mixed, and \$8 to \$8.50 for clover.

Hides.—Demand has improved greatly, and as the quality is fine, prices have advanced all round. Dealers were paying 8c., 9c. and 10c. per lb., respectively, for Nos. 3, 2 and 1 beef hides, and 11c. and 18c. per lb. for 2 and 1 calf skins, and selling to tanners at 1c. advance. Sheep skins are 5c. up, at 50c. each, horse hides being \$2 for No. 1 and \$1.50 for No. 2. Rough, tallow, 1c. to 4c. per lb., and rendered, 6c. per lb.

CHICAGO.

Cattle.—Steers, \$4.60 to \$8; cows, \$3 to \$5.25; heifers, \$2.50 to \$4.60; bulls, \$2.75 to \$4.50; calves, \$3 to \$7.50; stockers and feeders, \$2.50 to \$4.85.

Hogs.—Choice heavy shipping, \$5.80 to \$5.90; butchers', \$5.75 to \$5.85; light mixed, \$5.25 to \$5.40; packing, \$5.40 to \$5.80; pigs, \$4 to \$4.75; bulk of sales, \$5.40 to \$5.75.

Sheep and Lambs.—Sheep, \$4 to \$5.25; lambs, \$5.25 to \$6.75; yearlings, \$4.25 to \$5.75.

BRITISH CATTLE MARKET.

London cables for cattle were 11c. to 12c. per pound, dressed weight; refrigerator beef was quoted at 11c. to 11c. per pound.

A young woman overheard an old negro call to a peccaniny: "Come back, Exy, Exy!"

"Excuse me," said the young woman, "but isn't that a queer name for a baby, Aunt?"

"Dat ain't her full name," explained the old woman with pride; "dat's jes' de pet name I call for short. Dat chile got a mighty grand name. Her ma picked it out in a medicine book. Yes-sum, de chile's full name is Eczema."

"Dear," said the young wife, "I just can't wait till Christmas to tell you what I've got you for a present."

"Well," replied the young husband, "what is it?"

"I've got you a new rug to put in front of my dressing-table, and a bronze statuette for the parlor mantel," was the answer. "Now, what are you going to get me?"

"Well," said he contemptuously, "how about getting you a new shaving-mug and a razor?"

A Presbyterian delegate who was accustomed to being sent to denominational conventions to extend fraternal greetings was delegated to the General Conference of the Methodist Episcopal Church.

Rising to speak, he said it was always an interesting study to him to note the different receptions accorded him at the conventions of the various denominations.

"Whenever I attend a convention of the Episcopal Church, for example," said he, "I find I can do anything I like except preach in the pulpit. When I go before the Baptist Church I am accorded every privilege except that of taking communion. And," he said with a smile, "when I appear among the Methodists I notice I am allowed every privilege except taking the collection!"



Life, Literature and Education.

At Confederation there were 2,087 miles of railway in Canada; to-day there are 22,452 miles. . . . Incidentally, there is no better index to the growth and prosperity of a country than the extension of its railways.

According to recent statistics, 1,830 square miles of woodland are stripped yearly to feed the paper mills of the United States alone, one million cords of the pulpwood used being imported annually from Canada. All this, in addition to the immense quantities of timber used annually in a great variety of forms, from railroad ties to veneering. While advancing prices tend to restrict demand, wood is required for so many purposes that consumption increases apace, in the face of what would once have been thought enormous values. If this devastation goes on uninterruptedly, and the work of reforesting proceeds no more rapidly and systematically than at present, one of the certainties which we have to face in the comparatively early future is a treeless world. Too much of this work is being left for the Government to do. Our farmers should take the matter in hand, and prove by actual practice the enormous results which my flow from the aggregate of individual effort. Every farm should have a wood-lot, preferably upon its rougher or poorer acres. From a mere dollars-and-cents standpoint, the returns from such judicious forest culture would be profitable.

While the attention of Europe has been centered upon the Balkan situation, a complication of affairs of a peculiarly portentous nature has been coming to a head in India, where, at present, a second mutiny is feared. The great danger in all such disaffection in the East is that surrounding Oriental nations may be stirred into a sympathetic movement. Railways are becoming common throughout the Orient, and with them the old-time difficulty in the transmission of news, and of intercourse between country and country—the most effectual preventive of sympathetic movements—has largely died away. Great Britain will, no doubt, adopt immediate and drastic measures, both conciliatory and by display of force, to check the insurrection in its initial stages; and yet, though the present crisis may be tided over, it seems inevitable that Asia, so long dead, is to be the theatre of the most interesting events the immediate future holds in store. Whether this means the rapid ascendancy in power of the "yellow" races, or a general yielding of the continent to "white" influence, "white" commerce, time alone will tell. Much must depend upon how the present possibility of dissension and division within the great Empire of China works out.

It is understood that Mr. William Mackenzie King will be made Min-

ister of the new Department of Labor which is to be created during the coming session. In the meantime, Mr. King will go to China as one of the Imperial Commissioners at the International Anti-opium Conference. . . . It is rather interesting that the grandson of William Lyon Mackenzie, the most persistent revolutionist Canada has known, the leading spirit of the Rebellion of 1837, should be so noted for his tact in removing friction and pouring oil on troubled waters that he is employed as Canada's chief agent in so many cases requiring delicate handling. "Autre temps, autres mœurs." And yet, mayhap, the same spirit has acted in both ancestor and descendant. Ostensibly, the rebellion of 1837 was but the drastic measure which prevented a still greater upheaval—with the inevitable catastrophe which attends all political upheavals, however salutary—a little later. It is impossible to say that William Lyon Mackenzie was not a peacemaker, also.

Not long since, the writer had the privilege of hearing a lecture by Dr. Falconer, President of Toronto University. There was little of the startlingly new, perhaps, in the address, and yet the audience went away impressed with a realization of the profound influence which must flow from the going about through the country of such a man as this. A man big of stature and big of mind, too great to be small anywhere, far above narrowness or conceit, or self-consciousness, he impresses most of all by his loftiness of ideals and practical common-sense. "I have no sympathy with those who boast of extent of territory," he says. "What counts is the quality of the people, what they are, what they live for," and he points to Palestine and to Greece, which have lived; while rich, dissolute and luxurious Babylonia, exercising no influence upon succeeding races, has long been forgotten.

Dr. Falconer makes no attempt to display before his audiences the depth of his profound learning, but he does try to inculcate principles of manliness, to uplift character, and he succeeds perhaps more by what he is than by what he says. Character emanates, speaking with telling force when mere words must fall unheeded and unfelt.

We cannot see or hear too much of such men, the cream of our country, and our Teachers' Associations and Canadian Clubs deserve much credit for bringing them as often as they do before the people.

Recent news reports state that Black Hand letters have been received by a citizen of one of the villages of Ontario, threatening him with death unless he consents to be blackmailed. This is the second time such a thing has happened in Canada within a year, and surely it is up to our detective force to get to the bottom of the matter. The perpetrators of such cowardly robbery should be hounded down every time, and made such examples of as will check any propensities towards similar crimes for long enough in the future. The certainty of pun-

ishment, sure, unrelenting, is the only security for that safety of Canada's people upon which we have so long prided ourselves. Nor is such firmness of necessity "hard." Those who will neither work for their living, nor respect either the laws of humanity or of the land, deserve no clemency, and should not expect it.

How many of our readers are there who have not, at one time or another, looked calmly and admiringly on while trained animals went through the various "stunts" to which they have been "educated," just as though these were any indication of intellect on the part of the poor beasts compelled to perform them. Trained animals have, in fact, been found to be a drawing-card at all places where people go simply to be amused—the vaudeville, the town halls, the arenas set apart for the entertainment of the vast crowds which attend the agricultural and industrial exhibitions every fall—and just as long as they are appreciated, they are bound to be put "on the boards." . . . But there is another side, loathsome and horrible in every detail, to the picture, one which has been recently exposed by a writer in "Everybody's," who simply tells of the things he has seen. It is a pet delusion that animals are trained by love, by sticks of sugar and words of kindness, but this writer disposes of all such misconception at a blow. "Whips, sticks and iron rods are the accepted instruments of persuasion," he says, "and trainers constantly employ them. When a wild animal is to be broken, the first thing to break is his spirit. It is done with a club." And again, "Animals are not taught—they are pushed and hauled, and mauled, and whipped, and dragged, and choked, and tortured into tricks."

Following this assertion comes a horrible description, in concrete, of the "training" of several wild animals. . . . A handsome tiger was to be "educated." Five ropes with nooses were first thrown into its cage, one noose fixed about its neck, and the other four drawn taut about its legs. Finally, the door of the cage was opened, and the poor beast urged out into the arena of torture in which it was to be taught its first lesson—a stunt devised for the education and joy of future multitudes—viz., it was to be taught to sit down on a seat. In forcing it toward the seat, sharp-lashed whips, cruel steel forks, and revolvers loaded with blank cartridges, were all called into requisition, every movement of the animal indicating a tendency to turn on its persecutors being checked by a tightening and pulling of the rope, which threw it half-choked, with lolling tongue and protruding eyeballs, on its back, at which stage it was ferociously lashed, goaded, and pounded on the nose, with the purpose of instilling into it fear of the trainer. Again and again it swooned, but it was doused with buckets of water, and the lesson renewed as soon as it became conscious. Finally, by the use of a block and tackle, it was forced into the seat, and the whole performance was repeated day after day, until finally it dawned

upon the dim consciousness of the brute that this was the thing it was expected to do. There were future dollars in the trick for the owner of the show, and so no pains, no torture, must be spared.

We cry out in our self-righteousness against the Spanish bull-fight. We laud our twentieth-century civilization, our fineness of sensibility, and kindness of heart, and yet we spend our money to look at performances obtained at such a cost! Has the public not a duty to perform in revolutionizing the quality of public entertainment? What it demands will be given it; and just as soon as it asks for clean plays, with beautiful scenery; for pageants at once a treat to the eye and a spur to the intellect and the imagination; and for an elimination of trained animal shows, silly and disgusting burlesque, and acrobatic performances fraught with eternal danger to the performers, the stage will be made the thing it ought to be. A few petitions sent to the committees arranged to provide entertainment for divers occasions would do much. In connection with the trained-animal branch of the subject, there would seem to be an especially good field for the Societies for the Prevention of Cruelty to Animals to work in.

SPELLING REFORM.

Editor "The Farmer's Advocate":
In concluding your notice of Dr. A. H. MacKay's excellent paper on Spelling Reform, you invited discussion of this practical topic. I am reminded of the invitation by the fact that the Old Country newspapers are just now bringing us news of the recent establishment of a British organization to promote the simplification of English spelling. The society has opened offices opposite the British Museum, in London. Its president is Professor Skeat, of Cambridge University, and among its officers are Sir William Murray, editor of the great Oxford Dictionary; Sir William Ramsay, the renowned physicist; Dr. Furnivall, and William Archer. In England, as in America, the most eminent students of historical English and the leading dictionary editors are identifying themselves with the propaganda in favor of spelling reform.

About 1880, the London (Eng.) Philological Society made the first definite movement in the direction of this reform, but the first organization created for the special purpose of its promotion was the Simplified Spelling Board of America, formed three years ago, and provided with funds for the carrying on of its work chiefly through the liberality of Mr. Andrew Carnegie. The English Board appears to be planning its work along the lines that the American Board has been following. The latter has adhered to the principles that it laid down at the outset—not to advocate any modification of English spelling that is not temperate and reasonable; not to favor freakish spelling of any kind; not to relax the existing rules and analogies but to make them more certain, to extend and enforce them, and thereby produce greater regularity and consistency, and get rid of the present multitude of needless

exceptions and difficulties. The adoption of President Roosevelt's order for the Simplified Spelling Board in the United States Civil Service, proved that many of the critics had not even read the rules and principles adopted by the Board. Nothing was further from the Board's aim than to secure a general license for every one to spell words as he supposed them to be pronounced.

The success of the American Board's efforts is shown in part by the facts that the National Education Association has directed that its proceedings be printed in the Simplified Spelling; over three thousand teachers in colleges and universities have signified their approval of the movement; the Normal Schools in six of the States have adopted and are using the recommended spellings; at the Provincial examinations in the Province of Nova Scotia, the simplified spellings are accepted; four State Teachers' Associations have adopted resolutions of approval; the editors of the six chief dictionaries of the English language published in England and the United States approve the reform, and are members of the Board.

In another letter, with your permission, I should like to discuss some of the changes advocated. Interested readers, on application to Dr. Scott, Secretary of the Simplified Spelling Board, 1 Madison Ave., New York, can obtain the publications of the Board.

J. DEARNESS.

[We shall be pleased to hear something more from Mr. Dearness on this important subject.]

The Quiet Hour.

BEFORE THE JUDGMENT SEAT.

"We meet and mingle, we mark men's speech;
We judge by a word or a fancied slight;
We give to our fellows a mere glance each,
Then brand them forever black or white.
Meanwhile God's patience is o'er us all,
He probes for motives, He waits for years;
No moment with Him is mean or small,
And His scales are turned by the weight of tears."

I don't intend to talk to you about what is usually called "The Judgment Day," but rather draw your attention to the fact that every day is a judgment day. We stand always before three judges, and the trial is continually going on. These judges are God, the world, and ourselves. St. Paul says that it is a very small thing to be "judged of you, or of man's judgment: yea, I judge not mine own self. . . . But He that judgeth me is the Lord." In theory we may be ready to agree with the Apostle, but are we always so unconcerned about the praise or blame of men? It is not possible for us to treat that great power, "Public Opinion," lightly. If all our world should think we had committed some terrible crime, and should shun us as lepers, the testimony of a clear conscience and the smile of God would help to make the burden bearable, but the pain would be agonizing to any sensitive soul. But though God has made us hungry for sympathetic appreciation, and though it is a great help to anyone to win the approval of good men, there is a danger lurking in this pleasant path. It is possible to live for years in the sunlight of appreciation; it is possible to enjoy the favor of God and men, and the approval of one's own conscience which honestly declares that we are earnestly striving after holiness in act and word and thought, and yet to be standing in a position of great danger. And why? Simply because we are apt to value this pleasant

condition too highly. Sometimes, in order to stand unscathed before God's judgment seat, it is absolutely necessary to endure the condemnation of the world. When such a testing-time arrives, when we are tempted to do the wrong or tell the lie, which seems to be our only way of keeping the respect and approval of our fellows, then we reveal the ambition which has for years been silently gaining control of our lives. If we shrink away in horror from the taunts of men, feeling that we must sacrifice even self-respect, if necessary, in order to appear to be respectable, then it is a self-evident fact that for many years we have secretly loved the praise of men more than the praise of God. Then it is plainly to be seen that we are not so much afraid of doing wrong as of being found out. Then we can understand why David, in spite of his real love for God and holiness, valued his wonderful popularity so immoderately that, in order to shield himself from discovery, he tried to hide one crime by another. Having taken his neighbor's wife, he tried to save his reputation by killing that neighbor. Happily, the awfulness of his own plunge on the downward road opened his eyes. It was, he found, a small thing to be acquitted before the judgment seat of the world, when he was forced to stand as a guilty culprit before the judgment seat of God and his own accusing, condemning conscience. He found that, to love the praise of men more than the praise of God was to degrade himself, and to heap misery on his own crushed, defeated spirit. He then took the only way which could lead up to light and happiness again, and a hard and painful way it was. He pleaded guilty before the judgment seat of the world, openly confessing his shameful fall, and accepted meekly his tarnished reputation, because his ambition was really the true one at bottom. He could not help enjoying popularity, but he really valued the praise of God far more.

Victor Hugo gives a wonderful description of a man wavering between his valuation of the rival judgment seats. A man who had been a galley slave for nineteen years, had made a fresh start in a place where no one knew his past, and had won a great reputation for righteousness and generous philanthropy. He was rich and respected, and had been made mayor of the town. Then came the awful temptation. Simply by being silent, he could keep all that he had achieved by years of holy living—but in that case an innocent man would be sent to the galleys for life. To save this innocent man, he must declare himself, throw away with his own hands the reputation and influence which were so well deserved, and face not only shame, but the certainty of a fearful imprisonment. He fought a tremendous battle, and came out victorious, enduring shame, disgrace, loss of everything, and a return to the galleys, whose horrors he knew so well. He loved the praise of God and the approval of his own conscience more than the praise of men, though the latter is by no means valueless.

May God keep us from such a severe testing-time as this; but some testing will certainly have to be faced, and it is wise to prepare in time. Besides, as I said at the beginning, we stand always on trial, and day by day the witness is being borne for or against us, and the results are being recorded. What habit of mind are we daily forming? When other people misunderstand us or find fault with our conduct, are we hurt and unhappy, or do we turn instantly to our rightful Judge to see whether He approves? If He smile approvingly, are we happy, in spite of everything? Then it is plain that we have the right ambition. Perhaps it is the other way. It may be that the world pours out its praise without stint. What if we are satisfied with that! What if we rest content with that sweet food of gratified pride, not troubling to ask

God whether he is as pleased with us as men seem to be! What if even the second judgment seat of "conscience" is corrupted by public opinion, and says nothing to shake our self-esteem! Oh, that is a time to be very watchful against self-deceit. "Yea," as St. Paul says, "I judge not mine own self." Even though my own conscience does not accuse me, "yet am I not hereby justified, but He that judgeth me is the Lord."

Perhaps the praise or blame of the world about us is not very sincere, either. Those who heap flattery on us may be thinking privately that we are very conceited and selfish. They may say pleasant things in order to keep us in a good temper, and talk very differently behind our backs. Or they may blame us insincerely, finding continual fault, and yet in their hearts respecting us for conscientiously doing what we think right. Anyway, the praise or blame is very soon forgotten. "A moment's disappointment, a moment's gratification, and the ocean would be calm again, and quite forgetful of the ripple which disturbed its bosom."

HOPE.

About the House.

CARE OF THE HANDS.

Many people look forward to the ill effects of wintry winds upon the hands with real dread; rough, smarting skin and gaping cracks are not pleasant, nor are the emotions of the average woman of unmixed joy as she dons a fine waist for some state occasion and sees a pair of coarse, roughened arms and two equally coarse and roughened hands protruding below the dainty lace on the sleeves.

It is not a sign of mere vanity to take some care of the hands. Attractiveness depends almost as much upon them as upon the face, even were comfort a secondary consideration.

A prolific cause of sore, rough hands is, of course, the very common habit of running out into the cold wind without drying them thoroughly. If care is taken after each dish-washing, etc., to wash the hands with good soap and dry them perfectly before going into a colder atmosphere, the trouble may be greatly lessened. Still better results may be made sure of if one cares to take the precaution of wearing thin rubber surgeon's gloves while scrubbing, dusting, tending fires, etc.

When the hands become chafed they may be made soft and smooth again by washing them with good soap and soft water, preferably warm, just before going to bed, and rubbing into them, before they are perfectly dry, a little glycerine and rosewater mixed half and half. If the glycerine proves too strong, increase the proportion of rosewater, or dispense with the mixture altogether, and use in place of it a little cold cream, which may be bought all ready for use. In either case, wearing a pair of very loose old kid gloves in bed will both whiten the hands and save the bedclothes from being soiled.

Stains on the hands may be almost invariably removed by rubbing them with lemon juice and salt, or pumice stone; and hang-nails may be prevented by keeping the cuticle pressed back around the base of the nail until the "half-moon" is exposed, then rubbing in a little cold cream every night. For pressing back the cuticle an orange stick, which may be bought for a trifle, should be used, as it is made the right shape for the purpose, and does not scratch the nail or irritate the skin. Indeed, an orange stick and small nail file are indispensable to everyone who wishes to possess attractive hands.

RECIPES.

Christmas Cake.—The Macdonald Institute Recipe: 1 lb. raisins, 1½ lbs. currants, ½ lb. mixed peel, ½ lb. figs chopped, ½ lb. sugar, ½ lb. butter, ½ dozen eggs, ½ cup syrup, ½ lb. flour, ½ lb. almonds, spices to taste.

Plum Pudding.—Take ½ lb. each of sugar and suet, ½ lb. butter, 5 cups flour, 1 lb. each of cleansed currants and raisins, 2 tablespoonfuls shredded citron,

1 cupful milk, ¼ teaspoonful each ground mace, cloves, and nutmeg, 6 eggs, ¼ cup brandy. Rub butter and sugar together, and mix with them the milk and beaten yolks of the eggs. Add the flour and whipped whites, dredge the raisins (which should have been seeded and chopped), the currants and citron with flour, and put this in with the spices and brandy. Mix well, pack into greased moulds, plunge at once into a pot of boiling water and boil 5 hours, being careful that the water does not boil over the top of the mould and get into the pudding. If pudding bags are used, be sure to leave plenty of room for expansion; and if much pudding batter is made at once, use several small bags rather than one large one.

Spiced Cranberries.—Boil about 3 lbs. brown sugar with 2 cups good cider vinegar, adding 2 tablespoons each of cinnamon and allspice, and one of ground cloves, cooked in a bag if preferred. Cook to a syrup, then add 5 lbs. cranberries and simmer from 1½ to 2 hours. This will keep a long time in a covered jar.

Creamed Parsnips.—Peel and cut in two 6 medium-sized parsnips, sliced lengthwise. Cook two sliced potatoes with these. When tender add hot water enough to the water in which they were boiled to make about a cupful. Stir in a tablespoonful of butter mixed with a tablespoonful of flour and yolk of an egg, salt and pepper to taste. Boil a moment and serve.

Bean Soup.—Boil the beans until tender, strain, mash or press through a sieve and return to the liquor with a small minced onion and a little celery. Add more water or stock if there is not enough liquor, season, and serve very hot with bits of toast or fried bread. This is good for supper on cold winter evenings.

Winter Salad.—Mix left-over boiled cabbage and pickled beets chopped together. Pile on lettuce leaves, and serve with salad dressing. The lettuce may be raised in window boxes in a sunny window.

Stewed Figs.—Wash, soak over night in a little water and stew gently until cooked. Serve with whipped cream. This makes a very wholesome and nourishing dish.

Scalloped Parsnips.—Scrape and boil until tender. Mash while hot enough to make a pint. Beat into this 2 tablespoonfuls butter, 2 of cream, a well-beaten egg, season with salt and pepper. Butter a dish and put in a layer of crumbs, then a layer of parsnips, and so on until the dish is full, using the crumbs last. Sprinkle a little salt and pepper or paprika over the last layer, add a tablespoonful each of melted butter, milk and hot water, and brown rapidly in the oven.

Lemon-cream Pie.—Take one tablespoonful flour, two-thirds teaspoonful water, one teaspoonful sugar, yolks of 2 eggs and one lemon. Grate the rind of the lemon and squeeze out the juice. Mix flour and sugar and grated rind of lemon, then add yolks of eggs, well-beaten, and water. Cook over a slow fire, stirring constantly until it becomes thick. Have the pie-shells partially baked, pour in the filling, and finish baking. Last of all cover with a meringue made of the whites of the eggs and brown nicely.

Corned Beef or Lamb Hash with Poached Eggs.—Mince together the cold meat and cold-boiled potato, using half as much more potatoes than meat. Heat a frying pan, put a few spoonfuls of bacon fat in it, and a few spoonfuls of hot water. Add hash. Mix well, cover, and let become very hot. Turn on a hot serving dish, place poached eggs over the top, and serve.

Cheese Toast.—Melt 3 level tablespoons butter; cook in it one level tablespoon and a half of flour, one-fourth teaspoon salt, and a dash of pepper. When frothy stir in three-fourths cup of rich milk. Stir until boiling, then stir in half or three-fourths cup of grated cheese. Stir until the cheese is melted, then pour over toast. A slice of crisp bacon may be added to each slice of toast if liked.

Banana Pudding.—Mix one-third cup cornstarch with a little cold milk, and put the rest of the quart of milk to scald. When the milk is scalded, stir the cornstarch into it, and continue stirring until the mixture thickens and is thoroughly cooked. Beat the yolks of 2 eggs, add one-fourth cup sugar and half teaspoon salt and heat again, then stir

into the hot mixture. Let cook until the egg is set, then stir in sliced bananas. Serve with a caramel sauce, made as follows: Put one cup sugar into a pan and let brown. Add a cup of water, let the sugar melt in this, and cook to a thick syrup.

Prune Pudding.—Stone some cooked prunes, chop fine, and mix well with a little of the liquid. Now mix together two-thirds cup of stale bread crumbs, two-thirds cup flour sifted with 2 level teaspoons baking powder, two-thirds cup finely-chopped suet, and two-thirds cup sugar. Beat 2 eggs light; add two-thirds cup of the prepared prunes, half a teaspoon salt, and two-thirds cup of milk. Stir this mixture into the dry ingredients, and steam 2 hours in a close-covered, buttered mould. Leave plenty of room to swell. Serve with sauce.

The Ingle Nook.

A railway station is one of the most cosmopolitan spots on earth. It is also a spot where, even if you are among the least observant, you are likely to become for the nonce a student of human nature. Easconed in a corner, a half-hour's wait on hand, and nothing else to do, you idly watch the people drift by; a curious medley, of which, in all probability, you will never see a single member again, and yet you look at this one and that with an almost unaccountable interest. And all unconsciously, perhaps, you are radiating beams of friendliness here and there, selecting those who might be your friends—and if one of these should happen to meet your glance he might go on his way cheered a little, he knows not why.

Here comes a brisk business man, hurrying to the ticket office. He has come down to see his daughter off on a three weeks' visit. She is the apple of his eye, and he has great plans for her. You may meet this man across a bank counter, perhaps, but he does not need your friendship; his world is filled up already; and when his daughter marries, he will prefer that it be where money reigns, and position; but, above all things, money.

There on the seat nearest the door is a shy country lad. His trousers are a bit short, perhaps, and the "crease" is not visible. His collar, too, may be of the slightly antiquated. But he is an honest laddie, and in his eyes there is a world of loneliness. He has left the old home, may be, for there were younger children growing up and all could not stay; and here, while waiting for the change of cars, he has time to think about it all. His semblance is here, with the short trousers and the brand-new "telescope," but he himself is far away, looking through an open door upon the parents and brother and sister who are talking about him, wondering "how far he has got now." Old Tige is there, too, lying with his nose on his paws; and beyond the house and the old barn, the pine-woods are waving.

Now your attention is attracted to a young woman, dressed in accordance with the most accepted fashion, and dainty from head to toe. Her hair is puffed out over the latest approved foundation (you are morally sure that these "rats," at least, are sanitary); her hat has the droop that spells the acme of style; and her veil but brings out the beauty of her complexion, while not concealing in the least the tilt of her aristocratic little nose. You admire the little lady, but your emanations of friendliness scarcely go out to her. She, too, does not need them. If you spoke to her she would answer you, from the throne of her self-possession and self-sufficiency, with perfect courtesy, but with the ice in look and voice that chills; that is, unless you, too, are of the fashion-plate style, and the puffed hair.

Not so the fine-looking woman near by, quite as exquisitely gowned, but with less of the "latest" and more of the individual. In her face there is unfailing indication of the mind and character which make it what it is—a breadth of mind which can be interested in everything that is not foolish, and paltry, and mean; a heart that can feel for suffering anywhere, and recognize goodness and common sense, regardless as to whether their possessor wears this season's jacket or that of three years ago.

And here—in a corner there, where

they will be "out of the way," sit an old man and woman. He holds a basket on his knee, full of apples, perhaps, for the grandchildren; she has her handbag and umbrella, and a parcel or two. . . . They have come down a long journey, these two, but the companionship has never flagged yet, and never will now to the end of the way. . . . Perhaps these old folk do not need your interest either, but if you smile at them they will take it kindly; and if you help the old lady aboard with her umbrella and bundles, they will talk of it on the way, and again to the sons and daughters, and the grandchildren.

Just a word more. Have you ever yet sat an hour in a railway station without resolving to never say a slang word again? She is always there—the woman, young or old, who uses slang—and there it strikes you with all its bold, ugly, "commonness." You may have used it yourself; you may have overlooked it in a friend; but here, on the lips of strangers, you know it for what it is.

Without doubt there are slang words which are so apt that they will incorporate themselves into literature. This has been done, and is being done, in spite of purists, as such words as "jingo" and "graft" testify. But we refer to another class.

A ladylike looking girl said, "I am going to stick my brother for my fare up." The one tell-tale word marked her as no lady. A middle-aged woman ejaculated, "Darn the thing!" How ill-chosen the expression seemed on the lips of an age that should conduct itself with dignity.

Should we not at least discriminate with our slang? Still better—would it not be safer not to use it at all?

And now, how many of you will be

members of the Beaver Circle to be as busy as beavers, wide-awake, alert, active—just the kind of boys and girls that Canada will be proud to own as men and women by-and-bye. Sometimes, too, we hope they will be very busy in trying to give "The Beaver Circle" the success it may have if all try hard enough. So, hurrah for "The Beaver Circle," and congratulations to Noah Steinmann.

Just here I may say that for the next competition I want you to write a composition on "The Beaver," illustrating it by a drawing of a beaver. For each of these—essay and drawing—we will give a prize. Now, do you think any one of you will manage to capture both prizes?—Of course, you must take at least 75 marks to win one at all. . . . And, oh, yes, I nearly forgot—the best drawing of the beaver, if good enough, will be reproduced in the paper.

Be sure to send your letters so they may reach this office on or before the 20th of December, and this time and henceforth, address envelopes to "The Beaver Circle," "The Farmer's Advocate," London, Ont.

Now I must stop and make way for the Circleites.

Yours in a jolly big handshake,—

PUCK.

OUR DEBATE.

I must say that I was a little disappointed in the letters sent in on the debate, as to whether summer or winter sport is the better fun. Very few got as many as 70 marks, and not a single one as many as 75 marks, the requisite number for taking a prize. I am publishing the two best letters: You will



Difference of Opinion.

taking a little trip to the W. I. Convention at Guelph? If you go, be sure to use your eyes and your ears. We can learn many a lesson, as well as gather much to amuse in these little journeys—while the convention itself is an event of the year.

D. D.

The Beaver Circle.

Dear Girls and Boys,—As you see, we have a new name for our Circle. There were a good many votes for "Young Canadian Circle," but more for "Beaver Circle," and so that matter is settled, the prize going to Noah Steinmann, Wellesley, Ont.

I think we should all be very well satisfied with the new name. As Russell Warner, one of our Circleites, said in casting his vote: "The beaver was our first builder, and is an emblem of our country which is not brought to the notice of the reading public as much as it should be, and by calling our Circle 'The Beaver Circle,' I think we would no more than do the name justice."

If Russell had gone on I am sure he would have called our attention to the fact that the beaver is one of the busiest creatures alive, and so has become a symbol of industry—"As busy as a beaver," is a very common saying.

And so in this respect, also, I think the name very appropriate. We want

see they are very good, but, also, that they might be improved a little in brightness and interest, as well as in the number of points. I think both Hilda and Russell tried to keep their letters too short, but I would have given twice as much room, provided the letters were interesting.

Isabel Smith sent a very neat, prettily-written letter, but her sentences were rather short and jerky, with too many repetitions. A very good plan is to "mix" your sentences, having some long, some short. A long succession of very short sentences is sure to produce a jerky, rather disagreeable effect, while a succession of long ones makes heavy, tiresome reading.

Now, laddies and lassies, I hope you do not mind my pointing out your mistakes. You know, our Circle must be, above all things, helpful, and I cannot make it so without telling you your mistakes as well as your good points. Besides, I am sure, if you try your very best, you will be able to write letters, so bright, so interesting, that they will surprise us, and, perhaps, yourselves too. Let us see what you can do in writing about "The Beaver." I want everyone who writes to find a place at least in the honor roll.

In Favor of Summer Sports.

Dear Puck,—This is my first letter to The Children's Corner. I live on a farm, but will not tell you about my possessions

time, as I wish to have something to say about this debate. "Resolved, that winter sport is better than summer sport." For my part, I prefer the summer sport, and for many reasons. In the summer we have more sports and the daytime to view them by. In the winter the sports are mostly in the evening in the lighted rinks, or skating on the river or ponds by moonlight, when children of our age should be in bed.

For my part, I enjoy a baseball game on a warm day in summer, I enjoy fishing parties, picnic and garden parties. It is also pleasant in the hay and harvest fields.

Would like some members of Children's Circle to correspond with me. Hoping to see my letter in print.

RUSSELL WARNER.

De Cewsville, Ont.

In Favor of Winter Sports.

Dear Puck,—Reading in your last "Advocate" that we were to start a debate, I at once woke up. I think winter sport is much better than summer sport. In Coaticook, it is considered by the boys and girls, that a good skate is much better sport than to stay at home, lie down in a shady place, and still be roasted. Winter is a beautiful season; the snow is very pretty and the nights are so light. Snowshoeing is one of the chief sports of winter, and I like it best. Start out on a moonlight night and come back near the morning. Now, I hope that it is resolved that winter sport is much better than summer sport. Well, I must close, as I will be taking up too much space of this precious corner. I hope this will escape the waste basket.

HILDA BALDWIN.

Coaticook, P. Q.

Decision re Debate.—If the decision on the debate is to go by numbers, then "summer" has won the day, as three letters were written in favor of summer sports for every one in favor of winter sports. However, I think those in favor of winter sports have made out a very good case, also.

THE LETTER BOX.

Dear Puck,—I have been wanting to write to you for a long time, but I never could get it done. My uncle has been taking "The Farmer's Advocate" for as long as I can remember. I think it is the very best paper I ever read. This is my second letter to the Children's Department, and I am very much interested in it, because there are such nice stories and letters in it. I think you must be a big, jolly man, able to receive us all into your heart, and that you are able to write many nice stories for us in the Department, as we are all fond of reading, I think.

I think I will try making some of those Christmas presents you mentioned in the last "Advocate." I am in the third reader at school. There are just two pupils in my class, and we are both the same age.

The pupils of our school are going to have a concert of dialogues, recitations, and many other amusements. We are going to have a lot of the farmers and their wives to come; it will be at Christmas-time we have it.

I may drop in often to see you, and maybe I will tell you about our concert. I think I will get some of the recitations for it out of "The Farmer's Advocate."

There were some Indians near our school awhile ago, and I bought a bow and arrow from them. I got a little pink basket, too; it only cost one cent.

LUELLA KELLOUGH.

Auburn, Ont.

Write again, Luella, and tell us about the concert. I hope you will have success with the headwork.

Dear Puck,—It is bedtime, but I have to stay up to write to you. I am going to say a few words on the subject, "Who, or what, Puck is?"

Puck is pretty smart, I tell you, whoever he, she or it is. In one paper he speaks of boys being gentlemen and such. In another he is showing girls how to make watch fobs of beads, etc.

My opinion is that he, she or it, is a boy, and he's some nice lady helping him, and he is about fifteen years old, and I must skidoo to bed!

I lost the paper that had the picture of the "New Zealand Native" in it, but I found it afterwards and will enclose my scrip.
I would like some boys and girls of my own age to correspond with me.
EVA GRAHAM (age 13).
Cassburn, Ont.

Your notes on New Zealand came too late, Eva. You must be on time next time.

Several other letters cannot go in this issue for lack of space, but will appear as soon as possible. Flossie Stager's, which tells how to play a good Christmas game, is held over for the Christmas number.

FOR THE YOUNGER CHILDREN.
Confession.

Dear Pussy, I love you, an' I's your true friend,
'Cause I saved you a whippin' to-day,
When cook missed her custard, and every-one said
It was puss that had stealed it away.
You know you are naughty sometimes, pussy dear,
So in course you got blamed, an'—all that!
An' cook took a stick, and she 'clared she would beat
The thief out that mizzable cat!
But I—didn't feel comfort'ble down in my heart,
So I saved you the whippin', you see,
'Cause I went to mamma, an' telled her I 'spect
She'd better tell cook to whip me.
'Cause the custard was stealed by a bad little girl
Who felt dreffully sorry with shame!
An' it wouldn't be fair to whip pussy, in course,
When that bad little girl was to blame!
"Was it my little girlie?" my dear mamma said,
I felt dreffully scared, but I nodded my head,
An' then mamma laughed. "Go find nurse, for I guess
There's some custard to wash off a little girl's dress."
Well, then, 'course they knew
It was I, an' not you,
Who stealed all the custard an' then ran away,
But it's best to be true
In the things that we do,
An'—that's how I saved you a spankin' to-day.
—Churchman.

A Prize Letter.

Dear Puck,—I thought I would write a letter on the games that we play at school. Now that the snow has come we play "Fox and Goose." The other day the girls and boys made a fort. The girls got inside the fort and the boys snowballed the girls; I got hit in the eye with a snowball, but I did not care. In the summer we play "Emiline, Redline, Hide-and-go-seek." About the first winter I went to school we made a slide on the bank. Once when I was coming up the edge of the slide someone caught hold of my dress and I fell, and my teeth went nearly through my gum. My teacher sent me over to a neighbor's. My gum was sore for a long time afterward. Papa has taken "The Farmer's Advocate" for four or five years. Next time I write I will write on an accident I had. I do not want to take up too much room, so I will close for this time.
NEVA HASKETT.

Birr, Ont.

You write a very nice letter for a little girl, Neva, and so we are going to send you a prize, a book, which we hope you will receive safely.

Dear Friends,—I am always very eager to read the letters in the Children's Department. They are, mostly, so nice and interesting.

I will write you a short letter on what you said the children under ten, or ten, could write. We are playing "Pussy Wants a Corner," which is, of course, an old game, but still I like it. There is lots of fun in playing it.

I have two brothers and two sisters. My eldest sister is married. I often go to see her, as she only lives three miles away.

FRANCES MERRIFIELD (age 10).
Monkton, Ont.

**"THE FARMER'S ADVOCATE"
FASHIONS.**



6129 Misses' Naval Blouse,
44, 16 and 18 years.

6129: The naval, or sailor waist, is always a favorite one for young girls, and is admirable for school and college wear. It is just the right thing in which to take exercise, and it is altogether satisfactory and becoming. This one is made after the latest style, and can be finished with just the neck opening or with a longer one at the front, and laced together, as may be preferred. In the illustration it is made of blue flannel and is banded with braid, while over the left front is a strip of red flannel and red flannel also makes the chevrons, but such details can be arranged to suit individual taste, although the girls like to copy the sailor boys as closely as possible. Flannel, light weight serge, cashmere, and all materials of the sort, are appropriate, and the waist can be used with the skirt to match, or separately, as liked.

The waist is made with front and back. The one-piece sleeves are tucked at their edges and finished with straight cuffs, and are sewed to the armholes before the under-arm seams are closed. The facing over the blouse can be used or omitted, as liked. The sailor collar finishes the neck, and the separate shield is buttoned into place beneath it.

The quantity of material required for the medium size (16 years), is 4 yards 24, 3 1/2 yards 32 or 2 1/2 yards 44 inches wide, with 5 1/2 yards of braid.



6142 Loose Fitting House Coat,
34 to 44 bust.

6142: Much of the popularity extended to the house coats made on such a plan as this one is due to the ease with which they can be made and to the comfort that they provide. In the illustration, eider-down flannel is the material, and the trimming is ribbon banding, but the various lighter weight flannels are exceedingly beautiful this year, and equally appropriate, while cashmere and henrietta cloth and fabrics of similar weight are preferred by many women, and the design suits them all equally well. Again, if something still less expensive is wanted, the pretty flannelettes and cotton crepe may well be suggested as being especially well adapted to the purpose. If the closing of buttons with loops is not liked, the fronts can be finished with hems, and the closing be made with buttons and button-holes, while the lower edge and the collar and the sleeves are finished in any way that may be liked.

The coat is made with fronts, backs and under-arm gores, and is finished at the neck edge with a roll-over collar. The sleeves are in two portions each.

The quantity of material required for the medium size is 3 1/2 yards 24 or 27, 2 yards 36 or 1 1/2 yards 44 inches wide, with 4 1/2 yards ribbon.



6137 Child's Overall or Creeping Apron,
One Size.

6137: Every mother of a creeping child will appreciate this useful, protective little garment. It can be drawn on over the frock, or it can be worn without one, it allows the child perfect freedom and activity, while it can be made from any simple desirable material. In the illustration checked gingham is finished with collar and sleeve-bands of white, but pink and blue chambray percale and the more inexpensive printed wash fabrics also are used for the purpose.

The apron is made with front and back portions, and both the sleeves and the leg portions are gathered into straight bands, while the yoke can be finished either with a turn-over or standing collar.

The quantity of material required for the medium size is 2 1/2 yards 24 or 27, 2 yards 36 inches wide.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Be careful to give Correct Number and Size of Patterns Wanted. When the Pattern is Bust Measure, you need only mark 32, 34, 36, or whatever it may be. When Waist Measure, 22, 24, 26, or whatever it may be. When Misses' or Child's pattern, write only the figure representing the age. Allow from one to two weeks in which to fill order, and where two numbers appear, as for waist and skirt, enclose ten cents for each number. If only one number appears, ten cents will be sufficient.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

Current Events.

Many people have been killed by a recent tornado in Arkansas.

Austria is said to be doing her best to provoke the Servians into war.

One hundred people perished by the burning of the British steamship Sardinian, near Malta, last week.

Two Italians in Normandy have invented a device making it impossible to tap "wireless" messages.

The Italians are showing intense resentment against Austria because of the recent anti-Italian riots in Vienna.

The Hindus in Vancouver are protesting strongly against being sent to Honduras, the two Hindu delegates who visited that country with the special Dominion Commissioner having reported unfavorably.

It is feared that the revolt in China, which has broken out along the Yang-Tse River, may lead to a general movement throughout the Empire against the throne and all foreigners.

Arrangements have been made for the inauguration of a new steamship service between Hamburg, Bremen, Rotterdam and Montreal, to open in the spring. A general passenger and freight business will be transacted.

Turkey is still persistently boycotting Austrian trade, and still refuses to recognize Austria's claim for the annexation of Bosnia and Herzegovina. Both nations are rapidly mobilizing troops in preparation for a possible war. Thirty Servians have been slain in a fight with the Austrians.

POWER LOT

A Story of "Down East."

BY SARAH McLEAN GREENE.

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CHAPTER XXVI.

"As Far as Heaven."

A week had passed, and Bate had not yet returned. Mary's forebodings, if the truth were known, were not only for him, but also for fear of tidings of some criminal misdoing of his, or lest he should come home drunk and violent by night with she knew not what evil companions. Mrs. Byjo stepped out strong as ever in this emergency.

"I'm coming over to bunk on the lounge alongside your bed, Mary. When they was mixin' the mortar to make me up, they hadn't a drop o' 'Fear' to put in, by Jo! Fear's a mighty good thing, but they was out of it; so, while the devil was gpe to town to get some, they finished the job o' making me without any. It a'n't a safe way to be constituted, I suppose, but it's mighty comfortable." She swaggered cheerily about the kitchen and set her constant friend, the oxwhip, staunchly in a corner.

Mary laughed in sympathy with the broad kindness and courage on Mrs. Byjo's face. It was plain to see the relief on Mary's own face, that had been growing darkly haggard of late—more irresistibly beautiful than ever to poor Rob.

"Rob ain't got but one arm at present," continued Mrs. Byjo; "so me and my old oxwhip will stand guard, too."

She took a big pair of spectacles out of her pocket and sat down by the kitchen lamp with one of Mary's books. "You two young people can have the sitting-room table for your reading," she said, "and clear out o' here. When I read I don't want anybody interruptin' me with talk, or logglin' my elbows; I want the whole world to myself when I read, same as when I'm enjoyin' my first mess o' greens in the spring, only more so."

Mary's face was brighter than it had been for days. She felt freer to converse with Rob of what was on her heart, and she spoke to him in the adjoining room.

"I want you to be frank with me; if there is anything concealed about that day at Waldeck, Rob. Did—did Bate sail over there, too? I have been thinking lately—he was not at home that day."

"Miss Stingaree," said Rob, smiling in his ingenuous way, "it isn't hardly fair, is it, to ask me about Bate? He sails and he tramps so many ways—how should I know?"

"I've had a horrid suspicion haunting me, until Virginia came in and dispelled all suspicions with her brave good-cheer, that—that, possibly, it was Bate who was the means of your falling 'into the quarry?' She was looking at Rob more keenly than he realized.

He laughed, and laughed again, with the humor of the idea.

"Miss Stingaree, I have been able to defend myself against Bate for some time. You know that. You are not very flattering. It was the turn of my foot on a miserable stone sent me slipping down there. The fall was unexpectedly abrupt, and there were jagged rocks below."

"Rob, I believe that is the first lie you ever told me. You and Jim might have agreed on the same story at least. He said the bank caved in. What did happen? I want to know the truth."

Rob's smiling features were expressive of the utmost bewilderment and confusion. "If Jim said the bank caved, why, then, that was it. I was so stunned, you know."

"You weren't stunned before the bank caved in, were you?"

"No, oh no. not at all; but the

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things that happened just before did not make so much impression on me, or, rather, the impression was sort of lost, you understand—I think it is usual in such cases. But I can tell you this, truly—if Bate Stingaree pushed me over into the quarry, then I wasn't alive and knowing when he did it, that's all!"

Rob's forehead bloomed with frankness. Mary caught at his words eagerly with a sudden revulsion of feeling, believing what she was agonizingly anxious to believe, that her brother had not taken that dastardly attempt at crime upon his soul.

"If Bate had only—would only—put himself in training as you have done," she said. "Your abstinence, I mean, and—perfectly marvelous faithfulness of application. Rob, do you know of any way one could get hold of Bate really to influence him? You are intuitive." She smiled. "Now, I have been called 'scholarly,' here and there. I have a fair idea of perspective and logical sequences and values, to 'see all 'round a thing,' as they say here; but you—on occasion—you see as far as heaven, Rob. You saw my mother go. I shall never forget that. I should never have seen her go."

The woman's words were soft as music, the trembling of her lips inexpressibly tender. Rob realized of a sudden that Mary did not wholly disapprove of him, that she had even entertained a thought of him in the sanctuary of her tenderest emotions; he drank some of the astounding flattery of her words. His weary, hopeless heart proceeded to make eternity of this moment. Past and future were void; his senses swam in poignant ecstasy. He felt that he must say something to keep her still near him, not to appear as vacuous before her, however deliciously light his head was perched upon his neck, so airy and fine that it was no more trouble to him than the head of a sparrow.

"That was a great dream," he said, "that about your mother; and I'm not usually much of a dreamer, either."

"Rob, now can I get hold of Bate? Can you tell me?"

She followed one hope persistently, but there was the trace of girlish emotion still trembling on her lips; and there were her wonderful witch-dark eyes asking him for advice and aid.

"Perhaps," he said, with absolute honesty, the moment was so transcendent, "if he care enough for someone to want to win their respect, though he died doing it—I believe I'll tell you something, Miss Stingaree; since it is all a hopeless business for me, you won't mind now, I believe, if I tell you. You must not feel that you are unkind. It was a good thing, so don't you worry; but it hit—hard as death."

"Do go on, Rob," said Mary, much wondering.

"Since it is all a hopeless business for me, and I have not even any right, I suppose, to tell you how much I began to think about you at one time; in fact, I thought about you every blessed minute of the time. A fellow could not help it, you know. Well, I wandered up to the old church one evening—what they call 'Spook House'—and lo and behold! you and Jim were standing over in front of it talking together, and it came back through the old broken windows to me where I stood, and before I could turn away you were speaking of me, and you said: 'He is not a man at all!' That is what you said," concluded Rob, with half-averted face, on which strength and dignity mingled with a world of ardent adoration, not to speak of forgiveness, if forgiveness were required for those soul-biting words.

Mary's cheek was streaked with so dark a red, as though a sudden arrow had been sent to her heart.

"After that," Rob went on, "I did not care about drink, or pleasure, or anything; at first, I did not even care about you. It stopped every hope of the living in me. It killed me. It drove me"—Rob's face

settled to its sterner lines, and his voice grew tense and deep—"it drove me, when I was able to pick myself up on to my feet once more, to a resolution that was bigger than all things else in my eyes. I vowed that I would stand alone, and do the right thing, whether anybody knew it or not, or loved me or not; that I'd be a man to suit my own ideals on the subject, which are as high as yours, perhaps; though I haven't got far on the road yet, but, God knows, I've been trying—some."

Mary's voice was like the soft, clear tone of a flute; it seemed angelic, but heartless, to Rob.

"You think, if Bate could care really, to win someone's respect, or—hear some very harsh words about himself—it might redeem him?"

"I don't know," said Rob, drearily. Then he lifted his head again. "I'll do all in mortal power to help you with your brother, Miss Stingaree."

"How would it be, generally speaking, in a case like you have described to me," Mary's clear, flute-like, impersonal tone went on, "after hearing so unkind, thoughtless, and—exaggerated a criticism of himself; though entirely forgiving, perhaps, out of a great nature, a person would never care as before for one who had uttered such unfortunate words?"

"They were not unfortunate, after all, perhaps," exclaimed Rob generously, quite off his guard, "though they knocked a fellow down, when he got on his feet he had his jaws set for good, you know; he had his mind made up, and he wouldn't have stuck at going through hell itself to carry out his resolution. Don't you see?"

"Yes, I see,"—Mary smiled with composure—"but there could never be the same regard for her who had spoken them."

"That honeyed, reed-like voice would have deceived a wiser head than Rob's that swam so high and airily, as light as a humming bird's in Mary's dear presence, and under the spell of her eyes, though he was sadly resolved that she was altogether heartless."

"Perhaps not in some instances," he replied, utterly tactless, supremely fatuous. "But for me, in less than a day, I only grew to—love you more, though it was hopeless, and more and more, God help me, every day of my life."

"So many days," sighed the sweet and heartless voice; "but I shall always have to remember there was one day, Rob, when you did not love me."

He thought she was going to laugh. He looked up curiously, and saw only a very grave and beautiful profile contemplating spaces and infinitudes that had no connection with his poor story.

"Well, I don't know," he murmured, despairingly; "probably I did that day, too, although I did not know it."

She did laugh, softly, but to his astonishment there were tears in the eyes that turned to meet his.

"Then, since you include that day too, and there is no omission, I think I have something to tell you, too, Rob." The bright wave of crimson that swept over her face changed to a divine pallor, as she made thus her great amends to him.

"Though it is all hopeless, as you say, yet I should always want to remember that I told you this. If it is any comfort to you, to hear it from me, why, then, I want you to know, Rob, that you are more of a man in my eyes than any other I have ever met on earth; and that I love you, Robert, lad, I love you with all my heart. Now, go. We must bear our lives, and God help us to bear them."

"Mary!—Mary!" gasped Rob, his beatific face confirming her recent statement that he could "see as far as heaven," "do you mean—that you care for me—as a man you could have married?"

"A man whom I did not consider worthy of that honor"—the flute-like voice renewed its smooth and even

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music—" would not be the one I have just described to your humble sense as the strongest, noblest and bravest that it has ever been my lot to meet. Now, mad though you are for flattery, Robert, I have said those words for the last time. We must meet the future bravely. In a sense, this must be our farewell; it is 'hail and farewell,' for us, Robert lad."

"No—never, never!" said Rob, breathlessly, as though he actually plunged through the pearly gates of bliss; "there'll be a way! There must be a way! I'll make a way! I was not worthy—but I've won you! Say I've won you, since you care for me. Oh, God! I thought the way was hard, and all the time I was climbing up a hill that led to glory and the joy of life." He rose and strode once back and forth across the room, his humming-bird lightness of the head carrying him altogether into the realms of bliss.

"I'll make a way, my beautiful, my dearest—"
"Virginia is stirring," said the flute-voice, low. "You are behaving insanely. She will come in here presently."

"She will only think you have refused me," bending the ecstasy of his smile on Mary. "I am going out to tell her. Come with me, or I shall think I am dreaming. Come with me, dearest. You owe me this much. Remember the unkind 'exaggerated' speech you made about me."

"I remember," said Mary, sadly; "but we must remember other things as well. We are not free, neither you nor I."

"What binds you?" said Rob, in a flash, gritting his teeth in her very face, like a lion about to start out on the devouring path. Mary smiled. "Not a lover," she made haste to say, "but I shall not leave Bate; no one else would make a home for him, or have two days' patience with him. No one. Even if you were free," she reminded him, very gently, for his joy was sweet to her.

Rob's "intuitive" eyes, scorning all barriers, took infinite largess of the future. He shrugged his broad shoulders as though the world of sordid entanglement, privation, and doubt, fell from them lightly.

"Besides," she said, "remember it was your faithfulness to what you believed to be your duty that won me to you, made me trust you. It would be a poor reward if your love for me made you give up the fight, Rob."

CHAPTER XXVII.

The "Wrestle" by the River.

The tremendous gorge of the River seemed to miss half the tides. It filled, of course, regularly; but to me, in memory, it seems ever to lie there, bare, eating its heart out in smiting sun and shrieking wind, ragged with boulders, its few harbored vessels lying in the ways, exposed like ghosts without an element.

Well, the tide had gone out of my soul, too, and left it stony and dry, only the ghosts of dead hopes stranded bleak along its channel.

Captain Belcher, shouting cheerfully along the highway with his oxen, seemed a denizen of another world. But I had business with him.

"Stu," said I, "you got to speak up. I'm boss. It's my turn. I'm running the thing now. Here's a paper ready made. Read it, and put your fist to it, or we'll see which is the best man, you or me. We'll settle it within this very identical ten minutes right here on the ground. Here's pen and ink. I brought 'em in my pocket a purpose."

"Witnesseth, Stuyvesant Belcher and James Turbine: I, Stuyvesant Belcher, do hereby say and acknowledge, that, the justice of the peace being at the time incapacitated, I myself did by way of a jest perform a ceremony purporting and pretending to be a marriage ceremony uniting Cuby Tee-bo and Robert Hilton. But, having no license or authority to perform any such ceremony, I do hereby declare and confess the same to be null and void, and in no way bind-

ing from the said Robert Hilton and Robert Hilton.

And I, James Turbine, whose name is also affixed hereto, do say and acknowledge that no objection by law or otherwise shall be instituted or carried on against the said Stuyvesant Belcher.

Signed,

Signed, JAMES TURBINE.

"Jim, you're a scholar," said Belcher, reflectively, looking long and keenly at me; "you got it bad. Now, Jim, the 'arth is all 'fied and runnin' smooth. Why don't ye let her be till she begins ter creak? Then I'd see what I c'd do."

I laughed. "Sign here, Stu," I said.

"Whar'd ye steal this pen, Jim? Which end d' ye dip in the fluid? Mix a pint bottle o' ink next time, 'stead o' a quart, an' put in more bootblack, an' less dough an' hens'-ile, Jim; add a leetle molasses soon as ye git home, and a tetch o' new milk and cinnamon—somethin' soothin'." I better sign my own copy, too?"

"Certainly."

"Jim, see here; I can't git this signature ter look like the other. First time I signed my name there was a ham-rind stickin' to the point o' the pen, and now I'm workin' around here with a griddle-cake that fastened onto the nib the second time I dipped her into the bottle. The 'ain't no manner o' resemblance between them two signatures. I sh'll be held up for forgery."

"No, I'll look out for that."

"You'll perfect me, Jim?" said Belcher, with a great affectation of maiden simplicity.

"I'll stand by ye to the last ditch, Stu."

"Because, ef ye couldn't, I'm perfectly competent ter look out f'r myself. So you're runnin' things now, are ye, Jim? I thought the sun was risin' kind o' different this mornin', and the tides hove in as ef somethin' was werryin' 'em. Wal', don't be too brash, Jim. Handle 'em easy. How do ye like yer position? Does the highmighness of it pay ye for the pains?"

"No."

"Never mind. Somebody's got ter do it, an' I'm glad o' a rest, tell you work up a heric'n an' I have ter step in an' put things ter rights again. Wal', can I move on now, or is thar' any more writin' ter do? Good-by, Jim. Remember what I told ye about puttin' some fresh-laid eggs, well beaten, and a tablespoonful o' vanilla extrac' inter that ink."

I put Rob's release safe in my inner pocket. When you are clearing the way for other people's bliss, and the woman in it has grown into your life till you don't hardly know life without her, you see blank for a while; that is, if you're not a better man than ever I was.

As I stood staring a bit toward the hill, meditating whether it was better to climb it at once and deliver over the paper to Rob, or sail direct over to Waldeck and telegraph Doctor Margate to come on and re-establish his charge financially, and take him and Mary away out of harm, not knowing what might befall them from the Gar' Tee-bo and Bate source, especially now if the altered conditions of Rob's life were known; so, as I stood, Cuby herself came running to me from her cabin door, all excitement, the brown hair on her forehead waving, hatless.

"Oh, Jeem, the bears is comin'! The bears is comin'! Look you!"

I looked, and saw—a recurrent yearly event in this region—three tawny bears of huge dimensions led by their keepers, approaching along the bluffs, creeping mightily and cumbrously along; resigned and hopeless travellers, soon to go through a forced dance and pass the obsequious hat before us.

"Sure enough," I said. "Lord pity them."

"Come along, Jim," cried Cuby, her bright face glowing, her eyes shining a rebuke at my indifference:

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Have you ever seen some fellow promoted over your head because he had fitted himself for the chance that was to come?

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Remember, the Dain Press is the simplest on the market, not having any cogs and complicated machinery to cause trouble. Take no substitute. Demand the DAIN, as none is just as good. Remember, the DAIN ALL-STEEL PULL POWER PRESS is the only press that has the lowest step-over for the horses; that can be quickly coupled short for transportation; that will press 15 tons of hay with ease on team and men and that is always ready for use.

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Is the most effective and economical spray material. Its extensive use throughout the United States and Canada establishes this fact beyond doubt.

It will destroy San Jose scale, oyster-shell louse and other sucking insects, and at the same time all fungous diseases of the orchard, vineyard and garden.

One 50-gallon barrel will make 12 bbls. of spray material for winter use, and 25 to 30 bbls. for summer use.

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

FOR SALE—Large, well-marked Narragansett turkeys. Mrs. G. Baldwin, Colchester, Ont.

FOR SALE—Large, well-marked Narragansett turkeys. Mrs. G. Baldwin, Colchester, Ont.

LOCHABAR Stock Farm offers a nice lot of M. Bronze turkeys at \$5 a pair; Toulouse geese, \$4 a pair; Pekin ducks, \$3 a pair. Pairs supplied not akin. Also Leicester sheep. D. A. Graham, Wanstead, Ont.



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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.

DON'T SELL your land or move without getting particulars of small farms, Surrey Gardens Estate, on new electric railway, Vancouver Hillside. Write for them. Surrey Gardens Estate, Crown Buildg. Vancouver, B. C.

FOR SALE—Creamery. One of the best in the Eastern Townships. For particulars apply: Box L, Farmer's Advocate, London, Ont.

WANTED—Young men to qualify for agencies on Canadian Northern, C. P. R., and G. T. R. Lowest wages, \$57 per month. We teach Telegraphy, Freight, Tickets and Baggage. College or mail courses. Send for free booklet. Railroad College 179 Dundas St., London, Ont.

WANTED—A THE DELHI TANNERY Hides, Skins and Furs to tan for Robes, Coats and Gauntlets Mitts, etc. Tanned soft and pliable. Never get hard. **B. F. BELL, DELHI, ONTARIO**

FOR SALE OR EXCHANGE Sure, active and right every way. **Imp. Shorthorn Bull** Would take a young Canadian-bred bull in part exchange. **J. M. BECKTON, GLENCOE, ONT.**

Dairy Farm,
 NEAR MONTREAL,
FOR SALE

As a Going Concern, at a Great Bargain, for Excellent Reasons.

The chance of a lifetime for a live dairyman. Milk nets \$2 per 100.
 Over 100 acres excellent land. Well-built house. Silos. Barn for 40 milk cows, and other stock. Running water. Near station, post office, school and churches.
 Write and arrange for early visit before snow comes.

P. O. Box 953, Montreal, Que.

VALLEY HOME
Shorthorn and Berkshires

For sale: Six young bulls fit for service, and young cows and heifers; some are choice show animals. Also ten fine young Berkshire sows of prolific strains. Write, or come and see our stock. Visitors welcome.
S. J. Pearson, Son & Co., Meadowvale, Ont.
 Stations: Meadowvale, C. P. R., and Brampton, G. T. R.

"come you down to be near them when they dance."

She caught my hand, and I followed. Mysteriously arising from all quarters, boys and girls, men and women, began to dot the face of nature; from Joggins and the steep way and the lanes in all directions, the groups began to gather in a nucleus at the River settlement.

I saw Rob, one arm upheld in a sling, little Rhody Ditmarse drawing him eagerly by the other hand. He smiled when he saw us, and came instantly over to us.

Rhody's small and wise countenance was abeam with the general excitement and satisfaction.

"Me an' Rob cut a great pace hyperin' down here to the frolick, soon as ever we see the bears a-comin'," she said, and added, in explanation of the green apples she was heartily devouring, "of course, seein' as I was off on a good time, I had to ketch off a few cholery-balls to chew on the way."

Rob gave his familiar laugh of supreme enjoyment and marvelling admiration of Rhody. I can see that genial face, to this day; no covert ridicule there, but only as if he said, "Was there ever such a brilliant little girl as this?" She made a hopeful diversion, for, though Rob and Cuby made some talk together, they were not at ease in each other's company.

"My, but I admire your cap w'at you wear, little Rhode!" said Cuby, as if making friends on the whole with this small and competent being who had once so emphatically relieved her from the situation of "Grief" on the Sunday-school stage; "it mus' make-a you proud, that cap."

"Oh no," said Rhody gravely; "they come free. But, o' course, I couldn' wear my Sunday hat to the bear-frolick. A man goes around givin' these away, an' you wear it all around so as to make known the goods what's wrote on it." There was an illustration of a table on Rhody's cap, surrounded by a family group, from aged grandparent to infant in highchair, and above the festive scene shone in clear type the words, "Home Circle Tea."

"Car'line Treet," continued Rhody, "keeps wearin' her old 'sody' cap. She says, 'A dog 't ye know, with its fur droopin', is better 'n a strange cat with a ribbon 'round its neck.' Mebby she's right, but anyway, Home Circle Tea's cap is the very last one they've been 'round with, and all the children's a-wearin' 'em"—a statement confirmed on the spot by the moving panorama of caps bearing that legend.

Rhody put up her hard little fist to grasp Rob's hand in ecstasy as the bears came lunging down the steeps, and Rob held her hand, smiling.

I knew not whether to slip the paper, then, into his possession. While at sight of his face, I found myself willing enough, and eager, to do that, yet the look of Bate's face and Gar' Tee-bo's glooming on the far edge of the group bade me restrain the impulse yet a while. I was thinking it might be better first to make my sail to Waldeck and send my message to the doctor, and—to have another talk with Cuby.

"Forward-a-march-a!" commanded the keepers of their bears, in stentorian Italian, mingled with evidences of a bad cold in the head. The three great beasts stood erect, and marched in time to an execrable tune sniffed wearily and perfunctorily through the noses of the three showmen; marched and counter-marched, gigantic creatures, offspring of the wilds about them, who could have annihilated their keepers by a stroke of the paw and scattered the multitude like chaff before the wind.

Their eyes were sodden, dull. The mighty wilderness that had been theirs by right lay all about them; and they, tamed to earn their master's bread and to forego their very nature—the epitome of awful patience and of all-crushed desire—they danced and climbed the swaying flagpole

and "said their prayers," amid the jibes of the crowd, with the huge compliance of painfully uplifted paws.

The tide was creeping in apace: with it came the wind of all bold adventure and triumph over adversity and pain.

"Now wrastle-a-wrastle-a for the people."

They clinched and struggled in forced combat, growling angrily, so well trained, indeed, to simulated wrath that their huge embrace showed intensely dramatic against the background of the sea and hills. There was a strange majesty about them; the wilderness was still in them, and imperial strength. In my heart I commended them to break away and make for the lair of the forests that was waiting to receive them, but they struggled on with sovereign obedience.

"No man is my keeper," I muttered. "I do so because I will—and I'll do it with joy, by God, because I am a man."

"What?" said Cuby. "You make-a talk to yourself, Jeem?" and she laughed.

The crowd was dispersing. The keepers, with the hat of coppers collected through the incongruous whining and scraping of the mighty bears, had tied the beasts to a meal in the shed while they entered the "boarding-house" for refreshment. Rob and Rhody were beginning the ascent of the hill. The release paper was still in my pocket, and there was much to do.

"No, I don't want to talk to myself, Cuby," I answered. "I want to talk with you. It's in dead earnest, too." We turned, walking slowly toward her cabin together.

"You know, Cuby, I've always loved Mary Stingaree. I love her still, but that's over."

"God is good to you, Jeem," declared Cuby, with a brave toss of the head.

"Now, you like to flirt with about everybody, Cuby, and you've tried it a little on me, when there was no better subject. I'm a rough old fellow. I don't expect or reckon you could love me. But I've been thinking; and it seems to me, when we've got things settled, you and I had better make out to sea together, and try some new port for setting up a shanty. What do you say, little girl?"

(To be continued.)

Mr. Robert Miller, Stouffville, Ont., importer and breeder of Shorthorns, writes: About a month ago, I sold to Messrs Thos. Scott & Son, Sutton West, Ont., the pure Cruickshank Butterfly bull, Royal Jubilee—69813—, sire the Duthie Secret bull, Imp. Royal Fancy (93217), imported and sold by me, dam Imp. Jubilee Maid 2nd, imported by me. The winning heifer calf in the herd of D. R. Hanna, of Ohio, this season, was by Royal Fancy, and from a daughter of Jubilee Maid 2nd, imported in dam, and calved in my possession. Have also sold to John Goodfellow, Myrenall, Ont., the red bull calf from Imp. Brilliant Star—60833—, and an imported Kilblean Beauty cow, with quality and milking features that would make any person want a calf from her. The show-rings of Canada and the United States this year have been most interesting to me, for in very many cases it was a contest between Shorthorns bred from sires and dams that I had furnished, the best positions almost invariably being given to them in the finish. In nearly every State Fair, the "Get of Sire" winning first, and many times second and third as well, were by sires imported or whose ancestors were imported by me. The winning bulls were the same to a greater extent than could be claimed by any breeder or importer with regard to his importations in any year. To make it a short story, if the animals with a pre-dominance of blood furnished by me had been removed from the show-rings of 1908, a greater vacuum would have been made than if that of four or five other breeders had been kept from showing. Some men have imported more Shorthorns, but no one has made half the improvement to the breed, as evidenced by the show-rings of the last three years.

Messrs. W. G. Pettit & Sons, Freeman and J. A. Watt, Salem, Ont., announce a joint sale of Scotch Shorthorns from their noted herds, to take place at West Toronto Stock-yards on February 3rd, 1909.

Mr. C. D. Wager, Enterprise, Addington County, Ont., claims the date January 14th, 1909, for an auction sale of imported and home-bred Shorthorn cattle at his home, particulars of which may be looked for in later issues of "The Farmer's Advocate."

Messrs. S. J. Pearson, Son & Co., Meadowvale, Peel Co., Ont., 20 miles west of Toronto, C. P. R., 6 miles from Brampton, G. T. R., breeders of Shorthorn cattle and Berkshire swine, write: "Having sold 33 Shorthorns since last December, we have 25 head more to dispose of this coming year, which is our yearly increase from 27 breeding cows, including the finest lot of young bulls we ever had, many of them good enough to head first-class herds. Parties requiring such will do well to call and see our herd. We claim our Berkshires are a very prolific strain, as evidence the last five young sows we sold have farrowed from ten to twelve pigs each, being their first litters."

DUTY ON IMPORTED BROWN SWISS.
 Editor "The Farmer's Advocate":

In your issue of November 26th, you inform a correspondent, who makes inquiries, that Brown Swiss cattle may be brought into Canada duty free on presentation of a Certificate of Registration in the American Brown Swiss Record. In this you are mistaken. Under the present custom regulation, duty has to be paid. The reason of this is that there is no Canadian Record for Brown Swiss cattle, and the United States not being the country of origin of the breed, the American Brown Swiss Record does not appear on our recognized list of records. A quarantine regulation prevents the importation of animals from Switzerland, the country of origin, otherwise they might be admitted from that country on Import Certificates.

ACCOUNTANT.
 National Live-stock Records, Ottawa.

At the annual auction sale of Percheron horses from the stud of H. G. McMillan, Sioux City, Iowa, on Nov. 17th and 18th, 80 head, stallions and mares, sold for an average of \$460. The highest price of the day was \$1,000, for the black stallion Viborg, and the highest price for a mare \$830. On Nov. 19th, the Pabst stock farm, Oconomowoc, Wis., sold 38 head of Percherons for an average of \$309.

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SAYS MR. QUIRK

Would He be Without Dodd's
 Kidney Pills.

They Cured His Lumbago of Twenty
 Years' Standing, and Made Him
 Feel Twenty Years Younger.

Fortune Harbor, Nfld., Nov. 30.—(Special).—Sixty years of age, but hale and hearty, and with all the vigor of a young man, Mr. Richard Quirk, well known and highly respected here, gives all the credit for his good health to Dodd's Kidney Pills.

"I suffered for over twenty years from Lumbago and Kidney Disease," Mr. Quirk says, "and after consulting doctors and taking their medicines, made up my mind I was incurable. I was unable to work when I was persuaded to buy a box of Dodd's Kidney Pills. To my great and happy surprise I had not taken half a box when I experienced great relief. Seven boxes cured me. That was in 1900, and I am still cured. I would not be without Dodd's Kidney Pills for any money. I am twenty years younger than before I took them."

Dodd's Kidney Pills cure the Kidneys. Healthy Kidneys strain all the impurities out of the blood. That's why they cure Rheumatism, Sciatica, and other diseases caused by the presence of uric acid in the blood.

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This is your opportunity to put a first-class organ in your home for Christmas, and do it at very little cost. Every organ on the list is being offered away below regular values, and the terms of payment require but a small expenditure now. Every organ is guaranteed, and each one will be shipped subject to your approval. We agree to pay the return freight if not entirely satisfactory to you.

TERMS OF SALE.

Every instrument is guaranteed for five years. Any instrument shipped subject to approval. We pay the return freight if not satisfactory. A handsome stool accompanies each instrument. In ordering it would be advisable to send your second and third choices, in case the first should be sold before your order is received.

TERMS OF PAYMENT.

Organs under \$50.00, \$ 5 cash and \$3 per month.
Organs over \$50.00, \$10 cash and \$4 per month.

A discount of 10 per cent. for cash. If monthly payments are not convenient, quarterly, half-yearly or other convenient payments may be arranged. We wish to suit your convenience.

- THOMAS**—5-octave solid walnut organ by the E. G. Thomas Co., in solid walnut case, nicely carved, without high top, suitable for mission or chapel use. Has 6 stops, 2 complete sets of reeds, knee swells. A very nice-toned instrument, in excellent order. Special Sale Price\$27.00
- PELOUBET & PELTON**—5-octave walnut organ by the Peloubet & Pelton Co., in solid walnut case, neatly carved, with small extended top. Has 10 stops, 2 complete sets of reeds, with an extra sub-bass set, knee swell. An excellent toned instrument. Special Sale Price\$31.00
- DOMINION**—5-octave organ by the Dominion Organ Co., in neat mahogany case. This instrument is of chapel design, with small rail top, and is specially suitable for small church or chapel use. Has 9 stops, 2 sets of reeds in the treble, 1 set in the bass, 2 knee swells, mouseproof pedals, etc. A modern and attractive instrument. Special Sale Price\$39.00
- KARN**—5-octave parlor organ by D. W. Karn & Co., Woodstock, in solid walnut case of neat design, with high top; has 11 stops, 2 complete sets of reeds, 2 knee swells, etc. An attractive instrument in splendid order. Special Sale Price\$44.00
- BELL**—5-octave parlor organ by Daniel Bell, in specially handsome solid walnut case, carved and decorated. Has 12 stops, 3 sets of reeds in the treble and 2 sets in the bass, 2 knee swells; a beautiful instrument. Special Sale Price\$47.00
- UXBRIDGE**—6-octave parlor organ by the Uxbridge Organ Co., in solid walnut case with high top. Has 12 stops, 3 sets of reeds in the treble, 2 sets in the bass, 2 knee swells, etc. Special Sale Price\$49.00
- SHERLOCK - MANNING**—An almost new chapel style Sherlock-Manning organ in walnut case, finished both back and front, with rail top. Has 13 stops, 2 sets of reeds throughout, 2 couplers, 2 knee swells, mouseproof pedals. Has been used less than six months. Special Sale Price\$56.00
- KARN**—A piano-case organ by D. W. Karn & Co., Woodstock, case finished in ebony and gold. Has 10 stops, 2 sets of reeds throughout, 2 knee swells, 2 couplers. In perfect order. Special Sale Price\$63.00
- GODERICH**—Piano-case organ by the Goderich Organ Co., in attractive case in dark mahogany finish, with fret-carved panels and lacquered candelabra. Has 11 stops, 2 full sets of reeds, 2 couplers and 2 knee swells. Special Sale Price\$64.00
- DOMINION**—6-octave piano-case organ by the Dominion Organ Co., Bowmanville, in mahogany-finished case, with end panels fret carved, and solid polished center panel. Has 11 stops, 2 sets of reeds, 2 couplers, 2 knee swells, patent folding mouseproof pedals. Special Sale Price\$78.00
- BELL**—6-octave piano-case organ by the Bell Co., Guelph, in very attractive walnut case, full length music desk, mirror, rail top, 11 stops, 2 sets of reeds throughout, 2 knee swells, mouseproof pedals. Just like new. Special Sale Price\$79.00
- THOMAS**—A very handsome piano-case organ by the Thomas Organ Co., Woodstock, in walnut case with mirror top, marquetry panels. Has 11 stops, 2 sets of reeds, 2 couplers, 2 knee swells, lamp stands, mouseproof pedals, etc. Cannot be told from new. Special Sale Price\$84.00
- SHERLOCK-MANNING**—A very handsome golden oak piano-case organ by the Sherlock-Manning Co., in case of very attractive design, with plain panels, finished and polished like a piano and surmounted by hand carving. Has 13 stops, 2 sets of reeds throughout, 2 couplers, 2 knee swells, used less than one year. Special Sale Price\$85.00
- BELL**—A very beautiful 6-octave piano-case organ by the Bell Co., Guelph, in handsome walnut case with solid end-carved panels and very handsome mirror rail top, and lamp stands. Has 11 stops, 2 sets of reeds throughout, 2 couplers, 2 knee swells. Has been very little used and cannot be told from new. Special Sale Price\$91.00
- SHERLOCK - MANNING**—An exhibition style, 6-octave piano-case organ, in rich walnut case, double veneered and polished throughout like a piano. Has 36-in. bevel mirror top, lamp stands and mouseproof pedals. Has 13 stops, 2 sets of reeds throughout, 2 couplers, 2 knee swells. This instrument is a beautifully-voiced organ, and is practically new, having been exhibited new at the Toronto Exhibition in September of this year. Special Sale Price\$93.00
- ESTEY**—A rare bargain—an Estey chapel organ, in regular chapel style of case, finished back and front, with brass rail top. Is made in solid oak. Has 13 stops, 3 sets of reeds throughout, in addition to a sub-bass set. Has the superior tone quality of all organs of this celebrated make. Has been used less than six months, and is an organ that will be admired by musicians, whether for home or chapel use. Special Sale Price\$98.00

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188 YONGE STREET, TORONTO.

QUESTIONS AND ANSWERS. Miscellaneous.

BALANCED RATION FOR DAIRY HERD.

We are taking the liberty of writing you to ask what is a well-balanced ration for dairy cattle. We keep between 30 and 40 head, and have a considerable quantity of the following kinds of fodder: Alfalfa, mangels, ensilage, oats, barley and cut straw. J. S. M.

Ans.—Try a ration composed as near to the following as the individual appetites of the cows will admit: Alfalfa hay, 12 pounds; mangels, 20 pounds; corn silage, 30 pounds; oat chop, 5 pounds; barley meal, 2 pounds; straw ad libitum. For cows milking heavily we would recommend the addition of a pound of oil cake per head per day; cows milking less heavily might receive a smaller amount. The nutritive ratio of the above combination, without the oil cake, would be, roughly speaking, about 1:5.8. It should contain a trifle over 2½ pounds of protein and the equivalent of nearly 15 pounds of carbohydrates. Were it not for the alfalfa, the above ration would require a considerable amount of oil cake, or similar feed to balance it up.

CEMENT-SILO BUILDING.

As we are considering the silo question, I would like to have your opinion on the following questions:

1. Which is the better silo, the mass concrete silo or the cement-block silo?
2. How does the cost of building the two silos compare?
3. Would it be advisable to build a solid concrete silo with a six-inch wall, providing it was made a little richer and well reinforced?
4. Is it necessary to have a drain in a silo? Some say it is; others say it is not. If not, would it be advisable to build it a few feet in the ground? Our soil is clay.
5. What width of wall is required for a basement under a barn for a stone wall, a solid concrete, a brick block, and a concrete-block wall?

A SUBSCRIBER.


- Ans.—1. There is very little difference, as both are satisfactory. The block silo is conceded to be more frostproof.
2. The block silo is rather more expensive.
3. It would be quite safe on a solid foundation, beginning at bottom with 6 of gravel to 1 of cement, and ending at top with 10 of gravel to 1 of cement, and reinforcing with two bands of twisted wire in each course.
4. It is better to have tile drainage, though not absolutely necessary.
5. In either case a stone foundation 20 inches wide is desirable.

GOSSIP.

The Canadian Accountant, a standard text-book and work of reference in book-keeping, containing 500 pages, is advertised in these columns. Price \$2, post-paid to any address. The author and publisher is the Principal of Ontario Business College, Belleville, Ont.

By courtesy of Mr. Mortimer Levering, La Fayette, Indiana, Secretary of the American Shropshire Sheep-breeders' Association, Vol. 21 of the Pedigree Record of the Society, of which Mr. Richard Gibson, Delaware, Ont., is president, has been received at this office. It is a bulky volume of over 1,500 pages, containing the record of sheep numbering from 2:2979 to 254979, showing a remarkable increase and distribution of the breed.

In a certain Scotch village there lives a character who was recently employed by a farmer to do odd jobs on the farm. A duck was missed, and the farmer suspected Bob to be the guilty party. Calling Bob to him, he remarked: "Bob, what did you do with the duck you took last night?" "Me!" said Bob; "I took no duck." "Oh, but you did," said the farmer, playing the game of bluff. "For I heard it quacking beneath your jacket." Bob fell into the trap. "You couldn't do that," he said, "for I'd twisted its neck."



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The best and latest mill for cleaning and grading all kinds of Seed and Grain.
See nearest Agent or write for Catalogue to
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REG. TRADE MARK



TUSCOLA, ILLS.—I had a horse with a bony growth on knee, the leg was stiff, he moved sideways to go. On asking my druggist for something to cure it, he called my attention to your guarantee. Fearing it was too long standing, I had him write the company. In a short time got letter to tell me on the guarantee. So I bought and used; within ten days a diminishment could be seen, and before I used all the medicine could not notice a particle of lameness, and the enlargement had nearly all gone. Have used the horse all the time since, and notice no lameness. I would not have believed any medicine could do it.—F. J. GATES.
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Any person, however inexperienced, can readily cure these diseases with Fleming's Fistula and Poll Evil Cure. Even bad old cases that other doctors have abandoned, may be cured by this curing, just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vest-Pocket Veterinary Adviser. Write us for a free copy. Includes six pages, covering more than a hundred veterinary subjects. Durable bound, in Canada and U.S.A. **FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario**

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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:
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Removes Bursal Enlargements, Thickened, Swollen Tendons, Curbs, Filled Tendons, Swellings from any Bruise or Strain, Cures Spavin Lameness, Allays Pain Does not Blister, remove the hair or lay the horse up, 25¢ a bottle, delivered. Book 10 free.
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L. S. & Co., Montreal, Canadian Agents.

MY NEW IMPORTATION OF 30 Clydesdale Stallions
Will arrive at Guelph about the middle of December. I cordially invite all intending purchasers to come and see them.
O. SORBY, GUELPH, ONT.
Shetland, Welsh and Iceland Ponies
I have on hand a number of single ponies and matched pairs; all ages; thoroughly broken to harness and reliable in every way.
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A Safe, Speedy and Positive Cure for
 Curb, Spavin, Sweeney, Capped Hock,
 Strained Tendons, Founder, Wind
 Puffs, and all lameness from Spavin,
 Ringbone and other bony tumors.
 Cures all skin diseases or Parasites,
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 Bunches from Horses or Cattle.

**As a Human Remedy for Rheumatism,
 Sprains, Sore Throat, etc., it is invaluable.**
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RADIOL TREATMENT
 prolongs the life of a horse's
 legs. Completely removes by
 radiation all soft swellings that
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 Sprained Tendons, Windfalls,
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**No Blister - No Laying Up;
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 Sprains. Prevents Filled Legs.

An intelligent use of the "RADIOL
 LEG WASH" counteracts that daily
 wear and tear of the legs un-avoid-
 able with the horse in constant work, whether
 training, racing or on the road.

**One flask of "Radiol" will make a
 gallon of valuable leg wash.**

Carlowrie, Uddington, Eng., July 28, 1906.
 Sirs.—Kindly forward on receipt of P. O. an
 enclosed check for "RADIOL." I have
 been using it with great success on a Hackney
 mare with a very bad windfall that the vet.
 had given up. Yours truly, Thos. Preston.

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 Price \$2 a large flask, or post free from**

Canadian Agent:
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 Manufactured by The Radiol Co.,
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 One 1,750-lb. 8-year-old mare in foal. One 5-year-
 old mare and one 3-year-old mare.

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 Two right good yearling bulls left yet, and a lot
 of heifers cheap. Write, or come and see them.

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 Stallions, mares and colts.**
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 At Kinellar Lodge we
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 old Clydesdale fillies,
 both reg.; a big, good pair.
 Several choice Short-
 horn heifers. Nine shearing
 Cotswold ewes and
 nine shearing rams. This
 year's lambs, both sexes
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 cures inflammation of lungs,
 bowels and kidneys. The 20th-
 century wonder. Agents
 wanted in every county. Write
 for terms.
DR. R. V. S. Kingston, Ont.

**Shannonbank Clydesdales, Ayrshires,
 Yorkshires.** One stallion rising three years,
 by imp. Hopewell. Two young
 bulls ten months, and some
 heifers from six months to
 two years. Yorkshires of both
 sexes. **W. H. TRAN, Cedar
 Grove, Ont., Locust Hill Sta., C. P. R.**

QUESTIONS AND ANSWERS.
 Miscellaneous.

LIQUID IN STOVEPIPE.
 We have a stone house with brick
 chimneys and chimney tile in chimneys,
 and a wood furnace. Sometimes the
 furnace pipes leak a black liquid when
 the dampers are closed, and at other
 times it is all right. We burn dry soft
 elm. Generally, the fire is on several
 hours before they start to leak. The
 pipes were cleaned recently. The fur-
 nace has been in seven years and never
 leaked so badly as this fall. What is
 the cause of pipes leaking like that, and
 how can it be avoided?

SUBSCRIBER.
 Ans.—Even in perfectly dry wood there is
 given off in burning, as a product of
 combustion, a certain amount of water
 vapor, which, on coming in contact with
 a cold surface, condenses into liquid
 form. Where a long pipe leads through
 a cold room, sufficient quantities are so
 condensed as to cause an excess of water
 in the pipe. This, when mixed with the
 soot always found in the pipe, and also
 with rust that is formed, forms the of-
 fensive black liquid mentioned. If the
 stretch of pipe can be shortened, the
 trouble may be avoided. Otherwise the
 warming of the room is the remedy. If
 a steady fire is kept up the heat from
 the pipes will warm the room, and, in
 time, the dripping will cease. Another
 remedy is found in arranging a length of
 pipe so that the main draft will not go
 through the stove. By cutting a cir-
 cular opening in a pipe length and fitting
 a short length over it so that the open-
 ing may be closed when desired, a cur-
 rent of air from the room can be ad-
 mitted. This will avoid sweating of the
 pipes or dripping.


APPLYING MANURE.
 Will you be good enough to let me
 know when you would advise putting
 manure on the ground in order to obtain
 best results when one is in a position to
 take it out at any time during this
 year?
 C. E.

Ans.—As a rule, the greatest degree of
 benefit will be obtained from the manure
 by hauling promptly to the field and
 spreading, though there are, of course,
 exceptional cases, where another policy is
 preferable. In a well-arranged system of
 rotation, under Southern and Western
 Ontario conditions, a considerable area of
 land is devoted each year to corn, roots
 and soiling crops. These should receive
 the bulk of the manure, and the best
 time to apply it is during the winter, as
 made. For root crops it is perhaps
 best applied as a winter top dressing on
 fall-plowed land. For corn, on other
 than heavy clay land, a first-rate plan is
 to top dress soil during the winter and
 then plow this in spring. When time
 does not admit of spring plowing, a
 method similar to that advised for roots
 may be adopted. Where the land is hilly
 and the snowfall heavy, the manure may
 be drawn out in winter and piled neatly
 at convenient points in the field to be
 distributed with a manure spreader in
 spring. Where a quantity of manure is
 made during summer this can be hauled
 out as made and spread over the per-
 manent pasture, or may be applied sparingly
 to land intended for fall wheat. It is
 not, however, making the most out of
 barnyard manure to apply it in large
 quantities directly for fall wheat. Bet-
 ter apply it to a preceding crop of peas
 or corn. A sound principle in cropping
 is manure for the vegetative crops such
 as corn and roots, with fine tilth for the
 cereals.

W. E. Wright, Glanworth, Ont., who
 advertises Shropshire sheep and Chester
 White swine, has been for many years a
 successful exhibitor at leading Ontario
 exhibitions.

Attention is called to the advertisement
 of the dispersion auction sale of Short-
 horns, and Poland-China pigs, the prop-
 erty of C. R. Gies, Heidelberg, Waterloo
 County, Ont., to take place at his farm,
 near St. Jacobs, G. T. R., and Wallen-
 stein, C. P. R., on January 1st, 1909,
 when reduced railway rates will be avail-
 able, and when 30 head of Scotch and
 Scotch topped Shorthorns and a number
 of Poland-China swine will be sold, with-
 out reserve, at the buyers' own prices.

THE UNION STOCK-YARDS
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 WEST TORONTO, CANADA.
 Auction sales of Horses, Carriages and Harness every
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 Largest importers in America of Percheron, Belgian and German
 Coach stallions and mares. Our last importation of 127 head arrived
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 and mares of the above breed, many of them prizewinners in Europe
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 extra big ones. Prices right. Inspection invited.

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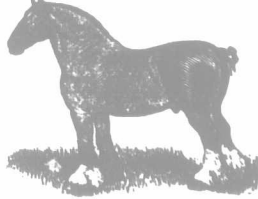
Shires, Shorthorns and Lincolns
 At present we are offering a very choice consignment of imported stallions, mares
 and fillies received from the great Shire stud of R. Moore & Sons, Beeston Fields,
 Nottingham, England. They are a grand lot, and will be sold at right prices.
 In Shorthorns we have a number of choice young bulls, three of them show
 animals; also an excellent lot of females—all ages.

JOHN GARDHOUSE & SONS, Highfield, Ontario.
 Toronto, 14 miles; Weston, 3 1/2 miles.




Imp. Clydesdales and Hackneys
 To my many friends and patrons: I am starting for Scotland for a
 new importation about Nov. 1st, and shall select the best available.
 In future my stables and address will be Markham Village, 20
 miles north of Toronto.

T. H. HASSARD, MARKHAM, ONT.



CLYDESDALES AND SHORTHORNS.—Both imported
and Canadian-bred, at Columbus, Ont., the Home of the Winners. Our last importation
 landed in August. They include the pick of Scotland, from such renowned sires as
 Baron's Pride, Everlasting, Baron of Buckley, Hiawatha, Marsells, Sir Everest, and
 Prince Thomas. We have on hand over 30 head to choose from, from the above
 noted sires, from 1 to 6 years old, and including stallions and mares. Correspondence
 solicited. Call and see them at our barns, Columbus, Ont., before purchasing elsewhere. Our prices
 are right. Long-distance phone in houses. Phone office, Myrtle station, Myrtle station, C. P. R.;
 Bro. Klin station, G. T. R.;
 Oshawa station, G. T. R. **Smith & Richardson & Sons, Columbus, Ont.**



IMPORTED CLYDESDALES, SHORTHORNS AND SHROPSHIRE!
 I have on hand several Clydesdale stallions, as choice a lot as ever crossed the ocean.
 Missie, Stamford, Claret and Gem of Baleschin Shorthorns; up-to-date in type and quality.
 30 imported Shropshires, 20 ewe and 30 ram lambs from imported stock. Look me up at
 Toronto Exhibition horse barns. **THOS. L. MERCER, MARKDALE, ONT., P. O. AND STA.**



IMPORTED CLYDESDALES
 My new importation for 1908 has now arrived—stallions and fillies—personally selected.
 Richest in breeding; highest in quality; with abundance of size and character. Sold on
 terms to suit. **GEO. G. STEWART, HOWICK, QUE.**



IMPORTED CLYDESDALES
 My new importation
 of Clydesdale stal-
 lions and fillies, land-
 ed a short time ago, are an exceptionally choice lot, full of flashy quality, style and char-
 acter, and right royally bred. I will sell them at very close prices, and on terms to suit.
C. W. BARBER, Gatineau Point, Quebec. "Close to Ottawa."



Clydesdales imported and Canadian-bred. Our mares all are
 bred to Acme (imp.), the 8th best breeding horse in Scot-
 land in 1907. Four male foals and one filly, all from
 high-class (imp.) mares, for sale right.

R. M. HOLBY, Sta. & P. O. Manchester, Ont., G. T. R.; Myrtle, Ont., C. P. R.




Clydesdales and Hackneys We have for sale a
 few choice Clydesdale
 mares, imported and
 Hackney stallions and
 mares for sale always. **HODGKINSON & TISDALE, BEAVERTON, ONTARIO.**
 G. T. R. and C. N. R. Long-distance phone.



Imported Clydesdales I have still on hand 1 stallion, black, rising 4 yrs., by Carthusian, a
 Toronto winner; 1 rising 2 yrs., by Baron's Pride, 1 rising 2 yrs.,
 by Danure Castle; 4 fillies, a Toronto first and second prizewinner
 among them. Every one of these is an extra good animal, and
 the price and terms are right.

T. D. ELLIOTT, Bolton, Ont.



IMP. CLYDESDALE STALLIONS AND FILLIES.—Our new importation of stallions
 and fillies are the best we could select in Scotland, particularly well bred, with the size,
 smoothness and quality that Canadians admire. Show-ring stuff. Come and see
 them. Will sell on terms to suit. **JOHN A. BOAG & SON, Queensville P. O. Ont.;**
 Newmarket Sta., G. T. R. Telegraph and telephone one-half mile from farm. Metro-
 politan Street Ry. from Toronto crosses the farm.



Oak Park Stock Farm Co., Ltd., have at present for sale a choice
 selection of young **HACKNEYS**
 broken to harness, well worth
 moderate prices. Also 70 choice **SHROPSHIRE RAM** and **EWELAMBS**, all bred from imported
 ewes, and sired by the best imported rams. Will be sold at times prices.
JAS. J. BROWN, Manager, BRANTFORD

QUESTIONS AND ANSWERS.
Veterinary.

UNTHRIFTY COW.

Cow has not thrived well all summer. At times she seems quite well and eats well, then for a time she eats little, is rather uneasy, and suffers from diarrhea. She is failing in flesh. W. D.

Ans.—These recurrent attacks of indigestion, without apparent cause, indicate a disease of the liver, for which practically nothing can be done. If the liver or intestines are not tubercular, the following should give good results: Take equal parts of sulphate of iron, gentian, ginger and nux vomica; mix, and give a heaped tablespoonful three times daily and feed well. V.

ENLARGED HOCKS.

I noticed my mare's hocks swollen last spring. She is quite stiff and sore, and there is a large, hard swelling on the outside of each hock and the inside of each is also swollen quite large. O. B.

Ans.—Your mare evidently has a tense bog spavin and thoroughpin on each hock. When these are so tense as to cause lameness for several months, a cure is doubtful. Blister the joints once every month all winter, and, if possible, give her rest. Take two drams each of biniodide of mercury and cantharides and mix with two ounces of vaseline, clip the hair off the parts, tie so that she cannot bite them. Rub well with the blister once daily for two days, and on the third day apply sweet oil. Let her head down now and oil every day until the scale comes off. Repeat the blister once monthly. V.

WARTS ON TEATS.

Nearly all my cows' teats are literally covered with small warts. They are too numerous to permit of the use of shears or knife. Is it contagious? R. J. M.

Ans.—Warts are not considered contagious, but it may be possible that in your case it is, and the contagion was carried on the hands of the milker. It is not uncommon for a crop of small warts to appear on different parts of an animal without appreciable cause, and they often disappear without treatment. The usual method of treatment is the use of shears or a caustic, but in this case either would cause such soreness that milking would be very difficult. Try the daily application of castor oil. This is said to give good results. V.

ITCHY LEGS—OPHTHALMIA.

1. Three-year-old mare has itchy legs. A scurf forms on them and she bites them.

2. Twelve-year-old mare occasionally has sore eyes. They run water and she becomes nearly blind. Two of the other horses took the same. Is it contagious? D. T.

Ans.—1. Some horses, especially those with bone of poor quality, are predisposed to this trouble. Give a purgative of 8 to 10 drams aloes and 2 drams ginger. Follow up with 1½ ozs. Fowler's Solution of Arsenic twice daily for a week. Rub well into the skin of the legs once daily a solution of corrosive sublimate, 25 grains to a pint of water.

2. This is periodic ophthalmia. It is not contagious. It is a constitutional disease, and the predisposition is congenital. If the other two are colts of the old mare, or are all descended from the same stock, it can readily be understood why they should suffer. The attacks cannot be prevented. Each attack should be treated by giving a laxative of either oil or aloes, keeping the patient in a comfortable stall, excluded from drafts and strong sunlight, bathing the eyes well three times daily with hot water, and after bathing putting a few drops of the following lotion into each, viz.: Sulphate of zinc, 15 grains; fluid extract of belladonna, 20 drops; distilled water, 2 ozs. It is probable she will eventually become blind from cataract. V.



WASHING OUT BEFORE BREAKFAST

"Wash Day"—under the old system that means topsy-turviness in the kitchen, poor meals and general discomfort. You know that. What a change comes about when you use a

"1900 GRAVITY" WASHER

and know you'll have your washing done and over in time to prepare a decent breakfast for your husband and family. Washing by hand or with a machine built on the wash board principle means rubbing, scrubbing, pulling and stretching, over-strained nerves, tired back, and no strength left to do the other household work properly. A "1900 Gravity" Washer will clean a tubful of clothes—any kind—in six minutes and do it better than a strong woman could by hand in an hour or more. You can't afford to be without a "1900 Gravity" Washer. Read the good news contained in our

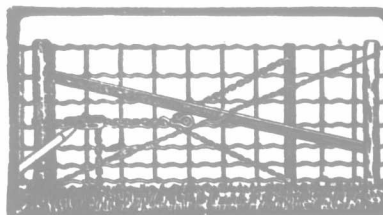
THIRTY DAYS' FREE TRIAL OFFER

Our faith in the machine is so great that we will send it to any responsible person for **ONE MONTH'S TRIAL FREE** without any advance payment or deposit whatsoever. We pay all the freight ourselves. You may wash with it for thirty days and then if it doesn't do all we claim for it, ship it back at our expense. Note, we are the only manufacturers of washing machines on the continent willing to make this great offer. Let us send a "1900 Gravity" Washer to you.

Write to-day for our handsome booklet with half tone illustrations showing the methods of washing in different countries of the world and our own machine in natural colors—sent free on request.

Address me personally **F. A. F. Beck, Manager**
THE 1900 WASHER CO., 365 Yonge Street, TORONTO, ONT.

The above free offer is not good in Toronto and suburbs—special arrangements are made for this district.



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

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Clydesdales and French Coachers, Imp.

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

ROBT. NESS & SON, HOWICK, QUEBEC.

Clyde Park Imp. Clydesdales I have on hand for sale several imported Clydesdale stallions and fillies, also 3 foals. Parties wanting something extra well bred and of the big-quality kind should write me. They will be sold at a right price, and on terms to suit.

ALEX. F. McNIVEN, ST. THOMAS, ONTARIO.

IMPORTED SHIRES At their St. Thomas stables, the John Chambers & Sons Co., of England have for sale stallions and fillies from their noted Shire stud, high class representatives of the breed. Correspondence solicited. Address: **DR. C. K. GEARY, St. Thomas, Ont.**

OIL CAKE The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

J. & J. Livingston Brand

DOMINION LINSEED OIL CO., LIMITED, BADEN, ONTARIO, 31 Mill St., MONTREAL, QUE.

Rowan Hill Shorthorns The 1908 Toronto grand champion, Royal Chief 65495, heads my herd. For sale are: 3 spring bulls and a few heifers, sired by him, and out of show cows. These are choice young things that are sure to please. **R. F. DUNCAN, Carlisle P. O., Ont.** Caledonia Station, G. T. R., or station 13 Hamilton and Brantford Electric Road.

SHORTHORNS FOR SALE! I have a dozen young cows and heifers, got by the Brawith Bud bull, Golden Abel (imp.), and in calf to the Bruce Mayflower bull, Royal Bruce (imp.), that I will sell very reasonable. A number of them are out of imported dams, and registered in Dominion and American Herd-books.

R. J. DOYLE, OWEN SOUND, ONT.

CANADIAN PACIFIC

ONLY THROUGH LINE TO Western Canada.

FAST TRAINS DAILY. LOWEST RATES. NO CHANGES OR DELAYS.

Talk it over with **W. FULTON, C. P. R. Agent, London, Ontario.**

Mr. A. I. HICKMAN,
Court Lodge, Egerton, Kent, Eng.

Exporter of pedigreed stock of every description to all parts of the world. During the winter months the export of cattle of the beef and dairy breed will be a specialty. Write for prices, terms, and references.

ABERDEEN-ANGUS CATTLE!

FOR SALE: Some of the best strains. Several fine heifers; also cows and a couple of bulls. Apply: **MANAGER, GRAPE GRANGE FARM, CLARKSBURG, ONT.**

Aberdeen-Angus For sale: The right sort, some of them by Klondyke, imp. Drumbo station.

WALTER HALL, Washington, Ontario.

HOMESTEAD ABERDEEN-ANGUS

Good individuals and good breeding, at prices that anyone wanting a good young bull or heifer can afford to pay. Come and see them. **WM. ISCHE, Sebringville, Ont.** Bell telephone.

GLENGORE Present offering: One bull 2 years old, and three choice bull calves, and anything in the female line. A choice lot and sold right. **GEO. DAVIS & SONS, ALTON, ONT.** Station, C. P. R.

Shorthorn Bulls Ready for service. One will make a show bull. Also young things from Matchless, Crimson Flower, Miss Ramsden, Rosemary, Diamond and Lady Fanny dams, the get of Chancellor's Model. Prices to suit times. Come and see. **Isra-el Groff, Elmira, Ont.**

SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."



HANDS COVERED WITH ECZEMA

"For three weeks I actually had to be fed like one feeds a baby, because my hands and arms were so covered with eczema that they had to be bound up all the time."

That is the experience of Miss Violet M. McSorley, of 75, Gore Street, Sault Ste. Marie. She adds: "I could not hold spoon nor fork. From finger tips to elbows the dreaded disease spread, my finger nails came off and my flesh was one raw mass. The itching and the pain were almost excruciating. I had three months of this torture and at one time amputation was discussed."

"Zam-Buk alone saved my hands and arms. I persevered with it and in the end had my reward. To-day, I am cured completely of every trace of the dreaded eczema, and I fervently hope that sufferers from skin disease may know of my case and the miracle Zam-Buk has worked."

Zam-Buk is without equal for eczema, ringworm, ulcers, abscesses, piles, cracked hands, cold sores, chapped places, and all skin injuries and diseases. Druggists and stores at 50 cents a box, or post free from Zam-Buk Co., Toronto, for same price. You are warned against dangerous substitutes sometimes offered as "just as good."



DEHORN YOUR CATTLE
Wonderful how it improves them. Heifers develop into better milkers. Steers fatten quicker.

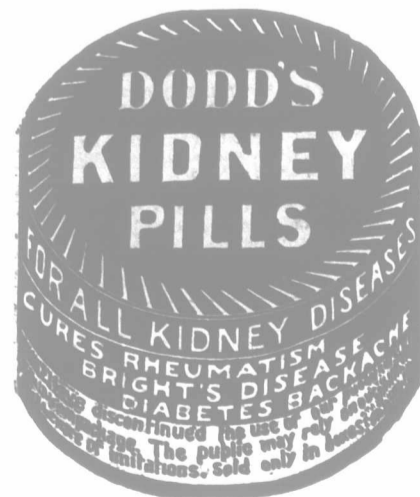
KEYSTONE DEHORNER
does it. Cuts clean—hurts little—does not bruise flesh or crush bone. Write for free booklet.

R. H. McKenna,
Late of Picton, Ont.
319 Robert St. Toronto

SHORTHORNS!
An extra good seven months' old red bull calf. Also a number of bulls, heifers and calves.

JOHN RACEY,
Lennoxville, Quebec.

"When they take women away from the co-educational college," said the speaker, "what will follow?"
"I will!" cried a voice from the audience.



QUESTIONS AND ANSWERS.
Miscellaneous.

ECZEMA.

Have a work horse, which, when not working hard and steady, takes a sort of itch. At present he is well curried twice a day, and exercised every day in harness, and not fed too highly, still he will scratch himself on the wall and tear himself with his teeth.

S. W.

Ans.—He has eczema. Wash thoroughly with warm soft-soap suds, applied with a scrubbing brush, then wash with a solution of corrosive sublimate at the rate of 40 grains to a quart of water. Give internally, one ounce Fowler's Solution of Arsenic, night and morning, every alternate week. It is good practice to clip a horse so affected, before applying the remedies given above.

TO TAN MUSKRAT SKINS.

Describe the full process of preparing or tanning muskrat skins for use. I want to use them for a jacket lining.

N. S.

Ans.—Tanneries can do the work properly, and with improved facilities could make a better job than can be obtained by home tanning. The cost should not be very high. If it is decided to tan the skins at home, it is well to soak them in soft water for two or three days to make them soft and pliable and to make it possible to scrape off all the flesh and fat. When thoroughly clean, put the skins into a tan composed of equal parts alum and salt, dissolved in hot water, about seven pounds of alum and salt to twelve pounds of hot water being satisfactory. After standing in this brine for a couple of days, they should be hung up and scraped well, in order to soften them. Then place them again in brine for a day or two. Hang up until dry and shave or scrape again. Apply a coat of oil, roll up in damp sawdust and store away carefully until dry. Then give an application of soft soap and again roll in sawdust. Since scraping is the main operation in making the skins soft, it is well to pull them back and forth over a round pole when they have become thoroughly dry.

MAKING SOFT SOAP—SOAP LINIMENT.

What is a good recipe for making soft soap? How is soap liniment made?

W. C.

Ans.—Get a strong, large barrel and remove the heads. Place on a close platform, standing so that the lye will drip well, and put a bit of board or shingle between platform and barrel to leave a crack through which the lye may escape. Cover the bottom of the barrel with clean straw, throw in a peck of slaked lime, then fill up with good hardwood ashes, which have been kept under cover. As each layer of ashes is put in pound it down. When the barrel is full, scoop out a place in the top which will hold two or more quarts of water. Fill this, place a vessel for the lye to run into, and leave until the water has disappeared, filling up the hole as necessary with water. When the lye begins to run, in about 36 hours, watch it, and if not strong, dip it back into the leach. When two large pailfuls of lye have been secured, pour it into an iron kettle and add the soap grease. Stir up a little and leave for a day or two before boiling. Boil until all the grease is dissolved. If any grease still rises to the top after a couple of hours' boiling, skim it off and save for another boiling. Take a teaspoonful of the strong soap in a saucer and add weak lye to it, a teaspoonful at a time, until the soap thickens nicely, remembering the proportion. Strain the hot soap through mosquito netting, measure it by pailfuls, and add the required amount of lye, stirring well. New soap is very strong, and should be kept in a very strong barrel. Soap-boiling, it may be necessary to mention, is usually done out-of-doors.

A satisfactory soap liniment can be made from castile soap (white, cut small), 2 1/2 ozs.; camphor (small), 1 1/2 ozs.; oil of rosemary (English), 3 fluid drams; rectified spirit, 18 fluid ozs.; distilled water, 2 fluid ozs. Mix these and digest with occasional stirring at a temperature not above 70 degrees Fah., until all are dissolved.

DISPERSION AUCTION SALE OF 30 Head of Highly-bred Scotch and Scotch-topped Shorthorns, and a Number of Poland-China Pigs,

ON JANUARY 1ST, 1909. I have never exhibited at the large fairs, nor done any advertising, and don't expect fancy prices. It will be a rare opportunity to get some thing to suit very reasonably. Should no outsiders attend, they will no doubt go at butchers' prices. Sale to commence at 1 o'clock p. m. Terms: 10 months' credit. Morning trains will be met at St. Jacobs, G. T. R., and Wallenstein, C. P. R. Reduced rates on all railroads. Write for catalogue.

Thomas Ingram, Guelph, } Auctioneers. C. R. Gies, Prop., NEIDELBERG, ONTARIO.
Albert J. Mickers, Waterloo.

TWO IMP. BULLS of excellent quality, color and breeding. One 7 months old, sired by imp. Joy of Morning = 32070=; dam Blossom 2nd, imp. Also heifer calves and young cows, and heifers in calf. And choicely-bred Yorkshires of either sex. Prices very moderate.

GEO. D. FLETCHER, BINKHAM P. O., ONT.
Erie Station, C. P. R.

Greengill Shorthorns!

We offer for sale our herd bull, imp. Lord Roseberry, also young bulls and females all ages, either imp. or from imp. stock. Prices right. Long-distance phone

R. Mitchell & Sons, Nelson P. O., Ont.
Burlington Jct. Sta.

PLEASE MENTION THIS PAPER.

Scotch Shorthorns

Bell telephone at each farm. Farms only 1/2 and 1 1/2 miles from Burlington Jct., G. T. R.

BULLS: 4 choice yearlings, IMPORTED; 8 yearlings and a number of choice calves of our own breeding. **FEMALES:** A number of cows and heifers forward in calf, including showyard material. Tempting prices.

W. G. PETTIT & SONS, FREEMAN, ONT.
Bell telephone at each farm. Farms only 1/2 and 1 1/2 miles from Burlington Jct., G. T. R.

A. Edward Meyer,

P. O. Box 378, Guelph, Ont.
Breeds SCOTCH SHORTHORNS Exclusively.
Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (90065) 25745 A. H. B.; Gloster King = 62703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

Scotch Shorthorns Canada's greatest living sire. Mildred's Royal, heads my herd. For sale are young bulls and heifers, show stuff and Toronto winners, out of Stamford, Lady Ythan, Charet, Emeline, Matchless and Belona dams. A visit will be appreciated. **GEO. GIER, Grand Valley P. O., Ont.**
Waldemer Sta., C. P. R.

Shorthorn Cattle AND LINCOLN SHEEP.

Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

J. T. GIBSON, DENFIELD, ONT.

J. A. WATT, SALEM, ONTARIO.

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

I can sell twelve young bulls, two of them leading winners at the big Western show and Toronto. Look up the records of the leading fairs, and note the breeding of many of the winners.



SPRING VALLEY SHORTHORNS.

Our herd is pure Scotch, imp. and home-bred, 50 head to choose from. Our present crop of young bulls are the best we ever had. All sired by the great stock bull, imp. Bapton Chancellor. High-class show things among them, including this fall Toronto winners. Nearly every one a herd header.

KYLE BROS., AYR, ONT., P. O. and STATION.

10 IMPORTED SCOTCH SHORTHORN BULLS

Now in quarantine, will be for sale at my farm first week in January; also four bulls from imp. sire and dam, and a number of high-class females. Prices right. Catalogue ready December 15. Write for one. Long-distance phone. Farm 1/4 mile from Burlington Junction station.

J. F. MITCHELL, BURLINGTON, ONT.

Pleasant Valley Herd

Present offering: 7 high-class young bulls by imp. Ben Leonard = 45249 = (80463) and Bud's Emblem = 43889 =, and good imp. and Canadian-bred dams. Write for particulars and prices, or visit personally.

GEO. AMOS & SON, Moffat Station and P.O.
Moffat is 11 miles east of Guelph on C. P. R.

Shorthorns!

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

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

Nonpareil Archer, Imp. Proud Gift, Imp. Marigold Sailor. Nonpareil Eclipse.
Females, imported and from imported stock, in calf to these bulls.
An unsurpassed lot of yearling heifers.

1854 MAPLE LODGE 1908 STOCK FARM 1908

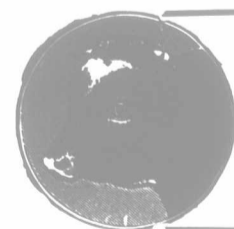
A few extra good young SHORTHORN bulls and heifers for sale.
LEICESTER ram lambs by the grand champion ram, "Sanford." Right good ones, and a few choice ewes.

A. W. SMITH, MAPLE LODGE P. O., ONT.
Lucan Crossing Station, G. T. Ry.

Willowdale Stock Farm

LENNOXVILLE, QUE.
Offers for sale a few **CHESTER WHITE PIGS**, 6 weeks old; **Leicester Rams; Shorthorn Bulls; White Plymouth Rocks; Belgian Hares.** Also breeder of **Clydesdale Horses.**

J. H. M. PARKER, PROPRIETOR



Shorthorn Home-bred Bulls

of the best breeding and quality at attractive prices for the buyer. To see them is all that is necessary. Try to do so if you are in the market. It will pay you.

JNO. CLANCY, H. Cargill & Son, Cargill, Ont.

J. WATT & SON,

We have for sale 4 choice bull calves ready for service, one of them a strong show proposition, also 1 yearling. The above mentioned belong to our most fashionable families, and will be priced to suit the times. Write for prices and particulars.

SALEM P. O., ONT., ELORA STA.
G. T. R. and C. P. R.



Choice Shorthorns FOR SALE!

Some fine young stock, either sex, including some extra heifers from imp. dams, and all got by the Cruickshank (Duthie-bred) bull, Sittytton Victor, imp. = 50093 = (87397). Also young Yorkshires, either sex. Address: **JOHN BRYDGE, Milverton, Ont.**
C. P. R. and G. T. R.

Science and Practice of Feeding.

From a timely bulletin on milk-production, bearing on its title page the name of Herbert A. Hopper, and issued by the Purdue University Experiment Station, we extract the following instructive paragraphs:

MISCELLANEOUS CONSIDERATIONS.

Various means of preparing foods have been resorted to in the past. Those that are cooked are no more digestible than the same uncooked. In fact, some parts are rendered less digestible through heat. Animals may consume more of it, which many times will account for the apparent good results. Wetting, except in special instances, when it is desired to tempt an ailing animal, is of doubtful value. If fermentation takes place, it may slightly increase digestibility, but should not be made a regular practice with the foods ordinarily used.

Drying, in general, does not exert any unfavorable influence upon digestibility if not excessive. However, most green foods are slightly more digestible than the same material as it is usually cured.

Certain foods known to have laxative qualities should find a place in nearly every ration. Those in which it is pronounced should be fed moderately, as an overstimulation of the digestive tract in this manner may prevent complete absorption of the nutrients, through an early expulsion of the same from the body. Again, as concerns the product, certain foods produce hard while others produce soft fats in the butter. Of the former may be mentioned cotton-seed meal and buckwheat middlings, while to the latter belong linseed-oil meal and the gluten meals.

No single food or combination of foods has yet been used, that will permanently increase the percentage of butter-fat in the milk of an individual cow. In the light of present knowledge, it is impossible to feed fat into the milk of a cow in normal condition. The quantity of milk can be influenced by feeding.

Salt is essential to health, but does not appreciably increase digestibility. Some cows are so greedy for salt that, when allowed to help themselves, they will eat so much as to produce scouring. Such are exceptional cases.

SANITARY CONDITIONS.

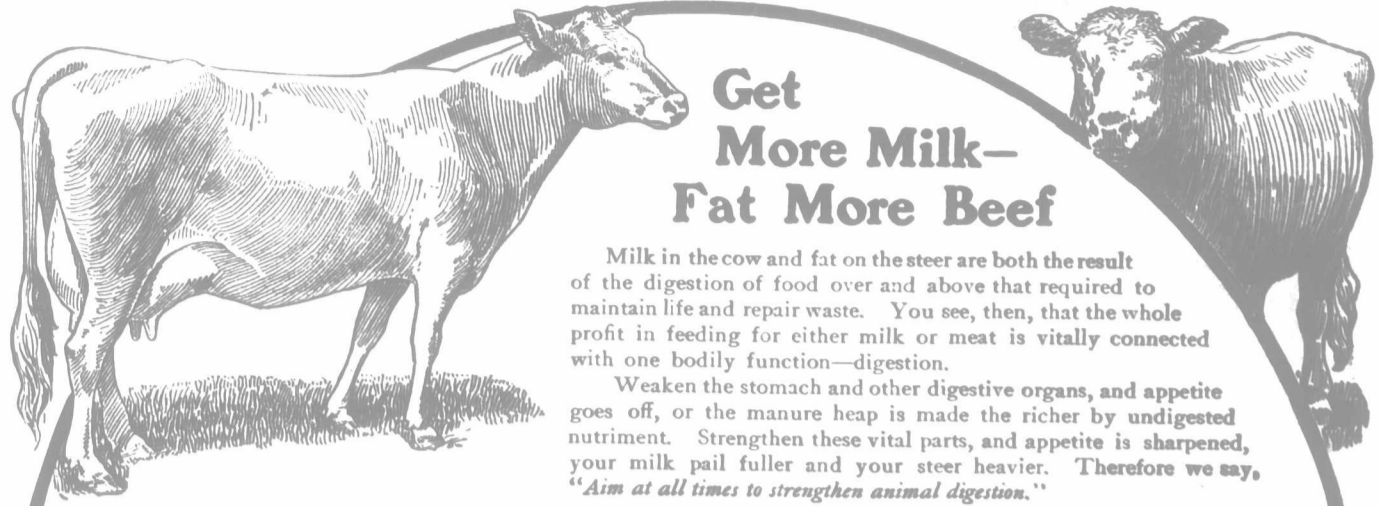
Aside from the quality of the product, sanitation pays, and pays well. Sunlight is Nature's greatest germ-killer and promoter of growth. Experiments with calves have shown that under the same conditions of feed and care, those furnished sunlight made better gains in weight, and were more vigorous, than those confined in dark quarters. Dairy cows always appreciate a congenial environment. Much available energy is wasted by compelling a cow to warm up a cold, damp room, or dry out saturated bedding. If these comforts are not furnished the cow, she uses considerable food in an attempt to secure them.

BALANCED RATIONS.

Ration, is the term applied to the amount of food consumed by an animal in 24 hours. There are various kinds of rations to meet the needs of a variety of animals under different conditions. When the food requirements of an animal are approximately met, no more, no less, its ration is said to be balanced. A ration suitable for a draft horse at work will not be balanced for one at rest. Neither will the ration that sustains a cow producing 15 pounds of 3.2 per cent. milk be adequate for one of the same live weight producing 35 pounds of 4 per cent. milk. The expression, "balanced ration," is a relative term, and depends upon the food requirements of the animal and the amount of digestible nutrients in the foods available.

The nutrients contained in all feeding stuffs, animal bodies and milk, may be divided for convenience into the following classes:

- Water.
 - Ash (mineral matter).
 - Protein (nitrogenous matter 16 per cent. nitrogen).
 - Carbohydrates (sugar, starch, cellulose).
 - Fats or oils.
- The first two need no consideration here, because water, though essential, is



Get More Milk— Fat More Beef

Milk in the cow and fat on the steer are both the result of the digestion of food over and above that required to maintain life and repair waste. You see, then, that the whole profit in feeding for either milk or meat is vitally connected with one bodily function—digestion.

Weaken the stomach and other digestive organs, and appetite goes off, or the manure heap is made the richer by undigested nutriment. Strengthen these vital parts, and appetite is sharpened, your milk pail fuller and your steer heavier. Therefore we say, "Aim at all times to strengthen animal digestion."

DR HESS STOCK FOOD

makes stomach, intestines, their nerves and every other organ of the animal act up to full capacity, a condition which we have already seen means profitable production. Dr. Hess Stock Food is not a ration, or to be fed alone, but given twice a day in the ration, it brings about the greatest possible assimilation, or healthful use, of large quantities of food.

Increasing the stockman's profit by increasing digestion is known as "The Dr. Hess Idea." Dr. Hess (M.D., D.V.S.) believed it possible to put feeding on a more paying basis by making perfect digestion, and for that purpose he formulated his Stock Food. We have seen how it benefits the cow and the steer—it is just as valuable for the horse, sheep or hog.

One very important thing about Dr. Hess Stock Food is the way in which it makes appetite for rough fodder. Cattle receiving it eat much hay and stover, which, of course, is a saving of grain. It also (by increasing digestion) saves waste of food in the manure.

The ingredients in Dr. Hess Stock Food are indorsed by such men as Professors Winslow, Quitman and Finlay Dun, and it is sold everywhere on a written guarantee. The dose of Dr. Hess Stock Food is small and fed but twice a day.

100 lbs. \$7.00; 25 lb. pail \$2.00. Smaller quantities at a slight advance. Duty paid. DR. HESS & CLARK, Ashland, Ohio, U. S. A.

Also Manufacturers of Dr. Hess Poultry Pan-a-ce-a and Instant Louse Killer. FREE from the 1st to the 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book any time by asking. Send 2c stamp and mention this paper.

DR. HESS POULTRY PAN-A-CE-A

It's not a difficult thing to have plenty of eggs almost the year round if you make Dr. Hess Poultry Pan-a-ce-a a part of your daily feed. A very little of this wonderful tonic (formulated by Dr. Hess, M.D., D.V.S.) corrects tendency toward indigestion in hens, makes them eat with appetite and put to use more of the egg-producing food. This is known as "The Dr. Hess Idea"—to give strength to digestive organs and so prevent food waste, it being evident that the more food used the more eggs would be laid.

Dr. Hess Poultry Pan-a-ce-a, besides making eggs, also helps toward the fattening of a market bird, shortens moulting time and is very good indeed for growing chicks. It has the endorsement of Poultry Associations in both United States and Canada and cures gapes, cholera, roup, etc. It is sold on a written guarantee: one penny's worth being enough for 20 hens one day.

1 1/2 lbs. 25c; 5 lbs. 85c; 12 lbs. \$1.75; 25 lb. pail \$2.50. Duty paid. Send 2c for Dr. Hess 48 page poultry book, free.

INSTANT LOUSE KILLER KILLS LICE

Glen Gow Shorthorns

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



Sunnyside Stock Farm

Bulls in service: Queenston Archer = 48998 =, Trout Creek Stamp = 67660 =. A number of first-class young bulls, red and roan, and a few cows and heifers, for sale. Prices right. JAMES GIBB, Brookdale, Ontario.



Stonehouse Ayrshires.

36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves. HECTOR GORDON, Howick, Quebec.



Stockwood Ayrshires!

My Ayrshires are producers as well as show stock. For sale are females of all ages. Also my stock bull, Pearlstone, a high-class sire and show bull. Am now booking orders for bull calves. D. M. WATT, ST. LOUIS P. O. & STA., QUE.



Ayrshires from a Pritzewinning Herd—Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to WM. STEWART & SON, Campbellford Stn., Menie P.O., Ont.

UTILITY GLENORA OF KELSO = 15798 = AYRSHIRES at head of herd. For sale: Females of all ages, and several young bulls, some out of 11,000 lb. cows. Come and see, or address: R. C. CLARK, Hammond, Ont., Railway station, Hammond (G. T. R. and C. P. R.).

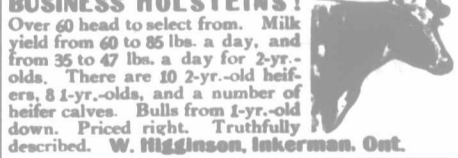
CHERRY BANK AYRSHIRES.

I am now offering young bulls and heifers true to type and high in quality. Some with imp. sire and dam; also will spare a few older females. P. D. McArthur, North Georgetown P. O., Que. Howick station, Que.

STOCK FOR SALE AT A number of Ayrshire bulls Springburn Stock Farm and heifers WILLIAMSBURG, ONT. deep-milking strain. 15 Oxford Down shearing and ram lambs. Ewes any age. Prices reasonable H. J. WHITTEKER & SONS, Williamsburg, Ont., Props.

Ayrshire Cattle for Quick Sale—Choice bulls, heifers and cows, imported or Canadian-bred, for immediate sale. Prices very low considering quality. Good tests. Heavy milkers. For particulars write: WILLIAM THORN, Trout Run Stock Farm, Lynedoch, Ont., Norfolk Co.

BUSINESS HOLSTEINS! Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr.-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of heifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. W. Higginson, Inkerman, Ont.



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ESTABLISHED 1865. RAW E. T. CARTER & CO. 84 Front Street, East. TORONTO, CANADA. Write for our LATEST PRICE LISTS CONSIGNMENTS SOLICITED. We Pay All Express Charges. Prompt Returns. FURS

DAIRY-BRED One handsome roan bull, fourteen months old, = 70046 =, and several choice heifers from imported sires, and bred to imported bulls. Come and see them. Wellington Stouffer, Ringwood P. O., Ont. Stouffville station, G. T. R.

Stock Bull Trout Creek Sailer = 59421 = 247242, A. H. B., for sale; also roan show bull, fit for service. A. M. SHAVER, ANGSTADT, ONT., Station 13, Brantford and Hamilton Electric Line; three minutes' walk from barns. Inspection invited. Priced right.

Stoneycroft Ayrshires Choice young bulls and heifers of the very best breeding, combining show and dairy quality. Large Improved Yorkshire Pigs from imported sires and dams, now ready to ship. Stoneycroft Stock Farm, Ste. Anne de Bellevue, Que.



HOWGLEN AYRSHIRES! For sale: 75 pure-bred registered Ayrshires, all ages; prizewinners; many imported. Apply to ALLAN P. BLUE, Eustis, Quebec.

AYRSHIRES Bull and heifer calves from producing dams. Right good ones. Hickory Hill Stock Farm. N. DYMENT, Clappison, Ont. Dundas Station and telegraph.

AYRSHIRES AND YORKSHIRES!

We will sell or exchange for a young cow our (imp.) 3-year-old bull. On hand: Young bulls fit for service (imp. or home-bred). Choice August and September, 1908, calves from imp sires, some imp. dams. One a grandson of Eva of Menie. Females any desired age. Bargains now, as we are crowded. We will only fill orders for 1909 importation. Young sows ready to breed. Phone Campbellford.

ALEX. HUME & CO., MENIE, ONTARIO. HOARD'S STATION, G. T. R.



WAS WEAK AND THIN ONLY WEIGHED 73 POUNDS. NOW WEIGHS 113 POUNDS.

Had Heart Trouble and Shortness
of Breath for Six Years.

MILBURN'S HEART AND NERVE PILLS
cured Mrs. K. E. Bright, Burnley, Ont. She writes: "I was greatly troubled, for six years, with my heart and shortness of breath. I could not walk eighty rods without resting four or five times in that short distance. I got so weak and thin I only weighed seventy-three pounds. I decided at last to take some of Milburn's Heart and Nerve Pills, and after taking eight boxes I gained in strength and weight, and now weigh one hundred and thirteen pounds, the most I ever weighed in my life. I feel well and can work as well as ever I did, and can heartily thank Milburn's Heart and Nerve Pills for it all."

Price 50 cents per box or 3 boxes for \$1.25 at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

Now is the time to buy a bull for service next year, because we sell **CHEAPER** now than we do next spring. Why not write to us **RIGHT AWAY** for a **BARGAIN** in bulls from R. O. M. dams? Or better yet, call and see us.

E. & F. MALLORY,
FRANKFORD, ONTARIO.

Holsteins & Yorkshires
R. Honey, Brickley, Ont.

All surplus stock of Holsteins sold, except this crop of calves. Ready to book orders for them. Best bacon type Yorkshires, one to six months, both sexes, at moderate prices.

Spring Brook Holsteins and Tamworths.
32 choice young Tamworths from imp. sows, and sired by imp. Knowle King David, of best British blood and Royal winners. Correct type. Holsteins of best strains. Write for what you want, or, better, come and see. Will not exhibit this year. Stock better than ever. A. G. HALLMAN, BRESLAU, WATERLOO CO., ONT.

Maple Hill Holstein-Friesians

Special offering: Two bull calves eleven months old; well bred; in fine condition; now fit for service.

G. W. CLEMONS, St. George, Ont.

Maple Glen For sale: Two bull calves born April 28th. One sired by Brightest Canar; dam of calf has 22½ lbs. butter record, over 4 per cent. fat. The other from 19.48-lb. 2-year-old A. R. O. test, sired by a bull with a 22½-lb. tested dam, with 93 lbs milk 1 day. Also a 4-year-old cow due in Oct., sire's g. dam sister of Carmen Sylvia. G. A. Gilroy, Glen Buell, Ont.

The Maples Holstein Herd!

RECORD OF MERIT COWS.
Headed by Lord Wayne Mechthilde Calamity, also in the Record of Merit. Nothing for sale but choice bull calves.

WALBURN RIVERS, Falden's, Ont.

HOLSTEINS Choice bull calves, one to six months old, from high-producing dams. One heifer, 2 years, due in December. White Rocks, Buff Oringtons, one dollar up.

David Rife & Sons, Hespeler, Ontario.

Homestead Holsteins Bull calves for sale 8 months old, out of cows with large A. R. O. records, and sired by Count Mercena Posch, whose dam and sire's dam average 25½ lbs. butter in seven days.

G. & F. GRIFFIN, Box 43 Burgessville, Ont.

"Can't you spare a poor fellow a nickel, mister?"

"Didn't I give you ten cents yesterday to get a meal?"

"Yes, boss; but you see I ate so much I got indigestion and I want to get some medicine for it."



The Name of

Black Watch

On a Tag on a Plug of
Black Chewing Tobacco

Stands for Quality.

secured at practically no expense, and any ration with a semblance of variety will contain enough mineral matter for the needs of all farm animals. The use and importance of the three following should be carefully studied by the dairyman.

PROTEIN.

This is another name for the group of nutrients in foods which are rich in nitrogen. Many times they are spoken of as nitrogenous foods, because they are composed on the average of 16 per cent. of the element nitrogen, the element which is essential in the growth of either plant or animal. As examples of foods rich in protein, we may mention such concentrates as oil meal, cotton-seed meal, and gluten meal, and the leguminous hays from alfalfa, cow peas, soy beans and clover. From the leguminous plants (those that secure most of their nitrogen from the air), the forage and seeds are rich in protein. Lean meat, white of egg, and the casein of milk, are customary examples of protein.

The principal uses of protein by the cow are to build muscle, replace broken-down tissue, and form the casein of milk. The cow's food does not contain casein; she makes it from the protein in her food. Successful feeding of the dairy cow depends much upon the proper use of protein. The selection of foods should be carefully made, first because those used are often deficient in protein; second, because no other nutrient answers the same purpose.

CARBOHYDRATES.

Carbohydrates include such substances as sugar, starch, and crude fiber, as they exist in the different foods. This group constitutes the larger part of the food consumed by farm animals, and when burned in the body, it furnishes the heat and energy for body functions and muscular activity. They are actually burned within the animal, the heat not needed to maintain temperature being thrown off. Milk solids draw heavily upon the energy of the cow. When carbohydrates are fed in excess of the demands of the animal body, fat may be formed. They are the source likewise of milk sugar and butter-fat.

FAT.

Fats or oils are common in both plant tissues and seeds, and in the animal body, where they are characteristic of the species. The rough fodders contain comparatively small amounts, while cotton seed, flax seed, and corn, contain large amounts. Fats perform the same function in the animal body as do carbohydrates, with the exception that they are 2½ times as valuable. Fats and carbohydrates are interchangeable, one may take the place of the other, but neither can assume the function of protein. No more muscle can be replaced or built up, or casein produced, than there is protein in the food. Protein can take the place of carbohydrates or fats when either is deficient, though this is an expensive substitution, but no amount of carbohydrates or fats will make up for a deficiency of protein.

GOSSIP.

To a Jersey Cow.

Here's to you, Lady, sleek and fine,
True daughter of a royal line!
From small black feet to tiny head
A lady born, a lady bred.
The quiet, mouse-hued coat you wear,
Those fawn-like eyes, that timid air
Of fine reserve, plain as your face
Proclaim your ancient, honored race.

Here's to you, Lady! May you know
Fresh clover field where'er you go.
May daisies nod and cowslips spring
About you like a fairy ring;
May bird songs mingle with your bell,
That tinkles down the shady dell,
And still pools mirror back the sky,
Where you may drink and wade breast high.

Here's to you, Lady! May you chew
The cud of happy memory, too,
And coming lowing from the field,
To gentle hands full udder yield.
But ere you sink to peaceful rest,
Grant me, I beg, this one request:
That I may drink this health to you
In that pure beverage which you brew.

—May Ellis Nichols.

Centre and Hillview Holsteins

125 head to select from. 35 in the R. O. M. Stock bulls Boncheur Statesman, high official backing, and is closely related to Colantha 4th's Johanna; Brookbank Butter Boy. All nearest dams over 20 lbs. From these sires, out of R. O. M. dams, are several young bulls and a few heifers. Prices right. P. D. FDE, Oxford Centre, Ont. Woodstock Station.

LYNDALE HOLSTEINS!

Bull calves out of cows with records of from 18 to 20 lbs., also three heifers coming two, and a number of young cows in Record of Merit, bred to a grandson of Pieterje Hengerveld's Count De Kol. BROWN BROS. LYN, ONT.

EVERGREEN STOCK FARM offers for sale choice young **HOLSTEIN BULLS**, from 10 to 12 months old, sired by sons of Mercena 3rd and Tidy Abbecker, each of which made over 27 lbs. of butter per week, and 80 lbs. milk per day. Also choice young females. Write for prices. F. E. PETTIT, Burgessville, Ont.

FAIRVIEW HERD

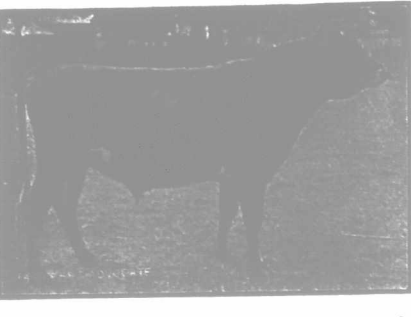
The greatest A. R. O. herd of Holsteins in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29½ pounds each, and over 4 3/4% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple 31.62 pounds butter in 7 days, and 126.56 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. E. H. DOLLAR, Heuvelton, St. Law. Co., N. Y., near Prescott, Ont.

Riverside Holsteins

For sale: Seven young bulls from two to nine months old, out of Record of Merit cows, sired by Sir Pieterje Posch De Hoer, whose dam and sire's dam average in official test 25.87 lbs. butter 7 days, and 87.6 lbs. milk in 1 day.

J. W. Richardson, Caledonia, Ont.

Only Bull Calves FOR SALE, HOLSTEINS and AYRSHIRES,
Of the best performing strains.
GEO. RICE, ANNANDALE STOCK FARM, TILLSONBURG, ONTARIO.



THE GOLDEN LAD BULL.
Golden Fox of Dentonia. First-prize yearling and junior champion at Toronto, 1907, Exhibition. His calves coming from my pure St. Lambert cows proves this cross a wonderful success. Correspondence invited.
T. PORTER, Weston Road, Toronto Junction.

Brampton Jerseys!

Select your stock bull or family cow from Canada's most famous and largest Jersey herd.

B. H. Bull & Son, Brampton, Can.

JERSEYS We have the get of Ethel's John, a 75 FOR SALE per cent. Mary Ann of St. Lambert bull; also of Minette's Star, a son of Brampton Minette, Brampton Monarch (imported), Blue Blood, and Financial King. Write for what you want. H.S. Pipes & Son, Amherst, Nova Scotia.

SOUTHDOWN AND COLLIES.
Long-distance Telephone.

Springbank Oxford Down Sheep

10 superior yearling rams, 1 two-shear ram, 1 imp shearing. Good flock headers. 13 choice ram lambs by noted imp. sire. Prices reasonable.
Wm. Barnett & Son, Living Springs P. O., Ont. Fergus, C. P. R. and G. T. R.

I CAN FURNISH JUST NOW A LARGE NUMBER OF EXTRA GOOD Shropshire and Cotswold Rams

A large number of extra good Shropshire and Cotswold ewes, twelve months old. And a few very high-class Shorthorn bulls and heifers. Any of which will be sold at moderate prices.
ROBERT MILLER, STOUFFVILLE, ONT.

SHROPSHIRE
Flock of the most approved type. We offer good animals at reasonable prices.
W. D. MONKMAN, BOND HEAD, ONT.

CLAYFIELD Buy now of the **Champion Cotswold Flock** of America, 1906. Flock headers, ranch rams, ewes of different ages. All of first-class quality, and prices reasonable. Write, or call on J. C. ROSS, Box 61, Jarvis, Ont.

YOUNG SHROPSHIRE EWES

FOR SALE. Bred to one of our best rams. Glad to receive communications.
MAPLE SHADE FARM. LONG-DISTANCE PHONE. John Dryden & Son, Brooklin, Ont.

OXFORD DOWN SHEEP

AT FARNHAM FARM.
We have 50 yearling ewes, all bred to our imported ram, champion at Toronto Exhibition, 1908, which we will sell at especially reduced prices for the next thirty days, in lots to suit purchaser. Also a few yearling rams and ram lambs by imported sires. Terms reasonable.
HENRY ARKELL & SON, ARKELL, ONTARIO Arkell, C. P. R. Guelph, G. T. R.

Shropshires, Cotswolds

I am now offering a lot of large, well-covered rams. They weigh from 160 to 200 lbs. each. Also shearing ewes, ram lambs and ewe lambs, of both breeds, fitted for showing.
JOHN MILLER, BROUGHAM, ONT. Clarendon station, C. P. R.

POPULAR LODGE SOUTHDOWN AND BERKSHIRES.

At right prices, 2 aged, 3 shearing rams, 2 ram lambs. Flock headers. Berkshires all ages, both sexes. Ideal type. Correct description guaranteed. S. Lemon, Kettleby, Ont., P. O. and Sta., also Aurora Sta. Long-distance phone.

OXFORD DOWN RAMS

For sale. A choice lot of yearling rams and ram lambs. Also two choice Yorkshire boars fit for service at close prices for quick buyers.
W. A. BRYANT, CAIRNGORM, ONT.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Orb, Capped Hock, etc. It is neither a salve nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ontario

Large English Yorkshires

Figs of the most approved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champions and grand champions. Prices reasonable.

D. C. FLATT & SON, Millgrove, Ont.

CEDAR LODGE YORKSHIRES

100 head of brood sows, imp. and product of imp. stock, weighing from 500 to 800 lbs. each. Stock hogs by imported sires and dams, very large and full of quality. Young stock of both sexes constantly on hand for sale. Pairs not akin. Satisfaction guaranteed.

P. O. COLLINS, Bowesville P. O., Ontario
Manotick Sta., C. P. R.

Newcas'le Tamworths, Shorthorns and Cotswoolds. I can furnish right now a large number of extra choice boars fit for service, some sows in pig, and any quantity about 2 months old, of such noted sires as imported Cholderton Golden Secret, Colwill's Choice, and Newcastle Warrior—champion boars at Toronto National several years in succession, and out of great big show sows. A few choice heifers; some safe in calf. Bulls ready for service. Will be sold very reasonable for the next 30 days. Also ten ram lambs and two shearing rams.

A. A. COLWILL, NEWCASTLE, ONT.

Maplehurst Herd of Tamworth Swine, Bronze Turkeys, Toulouse Geese, Pekin Ducks, S. C. W. Leghorns.

Tamworths of excellent breeding and ideal bacon type. Herd won sweepstakes at Toronto and London, 1905-6-7-8; winners at World's Fair, St. Louis, 1904.—sweepstakes aged and junior herd, and two grand championships. Apply to:

D. DOUGLAS & SONS, MITCHELL, ONTARIO.

Willowdale Berkshires!

Won the leading honors at Toronto this fall. For sale are both sexes and all ages, from imp. stock on both sides. Show things a specialty. Everything guaranteed as represented.

J. J. WILSON, MILTON, ONT., P. O. AND STATION. C. P. R. AND G. T. R.

SUNNYMOUNT BERKSHIRES

Highest standard of type and quality. For sale: Sows of all ages, and 4 yearling boars. A grand, good lot. Also younger ones. Pairs not akin.

JOHN McLEOD, C.P.R. & G.T.R. Milton P.O., Ont.

PINE GROVE BERKSHIRES.

Bred from imp. and Canadian-bred sires and dams, which are of choicest breeding. Stock, all ages, for sale. Some imp. in dam. Guaranteed as represented.

W. W. BROWNRIDGE, Ashgrove, Ont. Georgetown, G. T. R.

MAPLE GROVE YORKSHIRES

A choice lot of boars fit for service. A few sows bred and ready to breed. You get both sexes and all ages. We have one type, and that the most approved. We sell on the purchaser's approval. Satisfaction guaranteed. H. S. McDIARMID, Pinal P.O., Ont. Shedden Sta.

CHESTER WHITE SWINE AND SHROPSHIRE SHEEP.

Write for prices.

W. E. WRIGHT, GLANWORTH, ONTARIO.

Morrison Tamworths, Shorthorns and Clydesdales.

Tamworths from Toronto winners. Either sex. Any age. Sows bred and ready to breed. Pairs not akin.

CHAS. CURRIE, Morrison, Ont. Schaw Sta., C. P. R.

PLEASE MENTION THIS PAPER.

TRADE TOPICS.

The Dorn Hollow Concrete-block Machine, manufactured and sold by The Jas. Stewart Mfg. Co., Ltd., Woodstock, Ont., simple in construction and moderate in price, and no power required in its working, has been four years in the market, and the makers in their advertisement in this paper, claim that every machine sold is doing good work. Write the company for catalogue.

MOUNTING BIRDS.—How to learn to mount birds is taught by mail by the N.-W. School of Taxidermy, 48 J. Omaha, Nebraska, as intimated in their advertisement in this paper. Their offer to send free to applicants their book, "How to Learn to Mount Birds and Animals," should attract the attention of many people now that the hunting season is on. Write for the book, mentioning "The Farmer's Advocate."

A stitch in time saves nine, and also avoids many breaks in harness. A farmer cannot always find time to go to a harnessmaker when a repair is needed. The use of Myers' Lock-stitch Awl makes harness-mending an easy matter. It is constantly required, and always ready for use. Particulars can be had by writing to C. A. Myers Co., 6537 Woodlawn ave., Chicago, and asking for Booklet 52. The awl costs but \$1.00.

Buildings should always be set on solid foundations, but the importance of superior roofing also is worthy of consideration. Years of research and experiment have resulted in the manufacture of Carey's Asphalt cement, a roofing that is impervious to wind and water, and one that will retard heat and fire. For twenty years it has stood the test on roofs of all kinds in Canada and the United States. No tar or perishable materials is used in its manufacture. By sending a card to The Philip Carey Company, 112 Bay street, Toronto, and mentioning "The Farmer's Advocate," particulars can be secured.

REDUCING SWELLINGS.

The reduction of lumps or swellings is an important feature of home treatment. Many preparations are on the market for man and beast. Regarding Absorbine, Fred Chase, editor of "Postmaster and Carrier," Dallas, Texas, writes under date of October 8, 1907: "Dear Sir—I beg to thank you for the bottle of Absorbine Jr. My wife has been a sufferer for a year from malignant tetter, and found no relief either from physician's treatment nor so-called specifics. Absorbine Jr., however, is rapidly effecting a cure, all inflammation and roughness of the skin having disappeared." Absorbine Jr. for mankind is an antiseptic, germicide and discutient, mild and pleasant to use. It is recommended for Varicose Veins, Varicocele, Hydrocele, and is said to remove wens, goitre, and all soft bunches from mankind. \$1.00 a bottle at your local druggists, or post-paid upon receipt of price. W. F. Young, P. D. F., 73 Monmouth street, Springfield, Mass. The Canadian agents are Lyman Sons & Co., 380 St. Paul street, Montreal, Que.

GOSSIP.

Aberdeen-Angus cattle are advertised for sale by Wm. Ische, Sebringville, Ont., a station on the G. T. R., five miles from Stratford, who offers young bulls, cows and heifers, which will be sold at moderate prices, to make room in stables, if taken before January 1st. Anyone wanting such may find it to their advantage to call and see this stock.

Messrs. A. Hume & Co., Menie, Ont., make a change in their advertisement of Ayrshire cattle in this issue, in which they offer to sell or exchange for a young cow their three-year-old imported bull. They have also for sale young bulls fit for service, and bull calves, and females of various ages. Messrs. Hume write: "We have had a successful show season, especially with our young things, sired by Lessnessock Royal Monarch (imp.), and are prepared to give bargains, as we are crowded for stable room. We will only fill orders for 1909 importation, which we would solicit early."

\$200.00 in Cash

And 500 Valuable Premiums Given Away FREE

Below will be found three sets of mixed or jumbled letters. The first set when placed in proper order spell the name of something that is in every kitchen. The second set spell the name of something we all wear. The third set spell the name of a popular fruit. Here are all the sets:

- TSVOE (something that is in every kitchen.)
- HTOCLSE (something we all wear.)
- PALPE (the name of a popular fruit.)

Can you place the above sets of letters in proper order, so as to spell the words wanted? It is not easy. But with patience and perseverance, it can be done. It may take a small amount of your time, but as there are cash prizes and valuable premiums given away as an advertisement, it is well worth your time to make an effort.

It is just possible that you may have entered contests before and have not been successful, but please remember that in this instance you are dealing with a reliable firm and that there are over five hundred prizes to be distributed.

Write your answer to the above neatly and plainly on a slip of paper, and send it to us at once. Both writing and neatness count in this contest. If you do not happen to be a good writer, have some neat writer enter the contest for you, in his or her name, and if you are awarded a prize, agree with the person who does the writing that the prize belongs to you. All this may take up a little time and be a little trouble, but the prizes are handsome and valuable and worth many times the amount of time that anyone will give to the above.

Should you read this advertisement and yet not desire to enter the contest yourself, please point out the advertisement to some relation or friend who might be interested. This is an opportunity of a lifetime and should not be missed.

This contest is not open to children under 14 years of age. We propose to hold a contest for young people very shortly, but will not accept entries from children in this one.

Below is the prize list for the most correct, best written and neatest solution of the above.

- 1st prize \$50.00 in cash
- 2nd prize \$40.00 in cash
- 3rd prize \$35.00 in cash
- 4th prize \$25.00 in cash
- 5th to 9th prizes, five prizes of \$10.00 each \$50.00 in cash
- 10th to 14th " Five Ladies' or Gents' Gold Filled Hunting Case Watches.
- 15th to 19th " Five Family Dinner Sets (97 pieces).
- 20th to 24th " Five Ladies' or Gents' 14k Gold Plated Watches.
- 25th to 29th " Five sets of half a dozen Silver Plated Knives and Forks (Rogers).
- 30th to 34th " Five Ladies' or Gents' Solid Silver Watches.
- 35th to 39th " Five Handsome Violins and Bows.
- 40th to 44th " Five Hardwood Accordions.
- 45th to 49th " Five Magnificent Fur Ruffs.
- 50th to 54th " Ten Ladies' Toilet Sets.
- 55th to 59th " One Hundred Ladies' or Gents' 14k Gold Filled Rings.
- 60th to 64th " One Hundred Water-ton Fountain Pens.
- 65th to 69th " One Hundred Sets of 6 Silver Plated Tea Spoons (Rogers).
- 70th to 74th " Forty Ladies' Hand Bags.
- 75th to 79th " 110 Sets of Silver Plated Sugar Spoons and Butter Knives (Rogers).

CONDITIONS

The judging of the above will be in the hands of three gentlemen of undoubted integrity who have no connection whatever with this office. No employee of ours nor any of their relations will be allowed to compete. We do not ask anyone to send ANY OF THEIR MONEY in order to enter this contest.

THERE IS A SIMPLE CONDITION THAT MUST BE COMPLIED WITH, ABOUT WHICH WE WILL WRITE YOU AS SOON AS WE RECEIVE YOUR ANSWER TO THE ABOVE.

This contest is open to persons of either sex over fourteen years of age. No entries will be received from children. When replying to this advertisement, be sure to write your name and address very plainly in the space below. Cut out the advertisement and send it to us, together with the slip of paper on which you have written your solution to the puzzle, and we will write you at once in regard to the simple condition mentioned above.

I wish to enter the above contest and agree to accept the decision of the three judges appointed by the Bovyl Manufacturing Co., whose decision will be final.

NAME

ADDRESS

(State whether we are to address you as Mr., Mrs. or Miss.)

Address: **BOVEL MANUFACTURING CO., DEPT. N., MONTREAL, CAN.**

MONKLAND YORKSHIRES

are the easily-fed, quick-maturing kind. The sort the farmers want.

All ages for sale. 100 sows bred now.

JAMES WILSON & SONS, FERGUS, ONTARIO.

Duroc-Jersey Swine and Leicester sheep. 25 one and two shear ewes, 3 shearing rams, and this year's crop of ram lambs. Also sows in pig, and sows ready to breed; boars fit for service, and pigs ready to wean. **Mac Camobell & Sons, Harwich, Ont.**

OHIO IMPROVED CHESTER WHITES.—Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe delivery guaranteed. **E. D. GEORGE Putnam, Ont.**

ELMFIELD YORKSHIRES 50 young pigs for sale, both sexes. Young sows bred to imported boar, also sows to Canadian-bred boar due to farrow about 1st October. **G. B. Muma, Ayr, Ont. Ayr, C.P.R.; Paris, G.T.R.**

Large White English Yorkshires

October offering: A choice lot of boars ready for service. A number of good sows bred or ready to breed. A fine lot of young pigs. Pairs and trios supplied not akin. All the above from large imported stock from the best of British herds. **H. J. DAVIS, WOODSTOCK, ONT.** Importer and Breeder of Shorthorns and Yorkshires. Long-distance Bell Phone.

A MESSAGE TO MEN WHO ARE WEAK AND AILING.

The failure of medicine, of quacks, and even of other so-called electric belts is no argument against Dr. McLaughlin's Electric Belt. No other treatment, no other belt, is in the same class with it. Everything else may fail, but Dr. McLaughlin's Belt will cure. IT HAS CURED THOUSANDS WHO TRIED OTHER REMEDIES WITHOUT SUCCESS.

Here's an Offer That No Weak Man Can Afford to Miss.

Everybody Admires and Honors a Strong Man.

ARE YOU ONE?



If you are Tired of Useless Drugging, Come Now.

Do You Want to be

"A Man Among Men?"

WRITE TO-DAY.

This is a message to men. It is to men who want to feel like men, to look like men and act like men. This is to men who lack courage, whose nerves are shaken, whose brains are muddled, ideas confused, sleep restless, confidence gone, spirits low and easily depressed, who are backward, hesitating, unable to venture because they are afraid of failure, who want somebody to decide for them, who are weak, puny and restless. It is to men who have part or all of those symptoms, and want new life, new force, new vigor.

DR. McLAUGHLIN'S ELECTRIC BELT

is no longer an experiment. It is hailed by thousands with loud praise, because it has cured them. "It cured me. I am well and strong as ever. What more could one ask?" writes a man with a heart full of gratitude.

Do not be in error. This grand appliance is like no other. It is new. It has all the good points that are known in electricity. It gives a powerful current, but does not burn or blister, because my special cushion electrodes make the current a warm, gentle glow, which exhilarates and relieves at once.

Dear Sir,—I am fully satisfied with the result of your Belt. It is fully as good as you claim. It has made a new man of me. I have gained both weight and strength. Every word turned out to be true. I could not believe at first myself that your Belt was as good as it is. My friends tried to make me believe that your Belt was no good, but I was strong-headed, and got the Belt. After wearing it for seven weeks, I knew that the Belt was good, and in two months' time I was completely cured. Now all my friends believe in the Belt, but none stronger than I do. I have recommended your Belt far and wide.—ALEX. McDONALD, Dunmore, N. S.

Dear Sir,—I have great pleasure in writing to you to say that, after a fair trial of your Belt, it has accomplished wonders in so short a time. The indigestion is gone, and I can eat a good, hearty meal now (what I have not done for a long time), and the pain in my back is about gone. In fact, I feel like a new man, and will say that I am well satisfied with my bargain.—JOHN BEATTIE, Mina, Ont.

Dear Sir,—You will excuse me for not writing before, but I was in the lumber woods, and did not return until this month. Yes, sir, my back is all right. It is better and stronger now than it has been for thirty years. It is a permanent cure. My head don't bother me; nerves are strong; I am better all over. You can use my name to certify that your Belt is all you claim for it.—GEORGE STANLEY, Perth, Ont., Victoria Co.

"My case has certainly been a very serious one, and one of long standing. I had latterly and so long been unable to do any work at all. Your Belt has worked wonders in my case, as I am working steady now. It is well known here that it is your Belt that has put me on my feet again, and, no doubt, will be the cause of other sales for you."—WILLIAM J. BYERS, Nipissing, Ont.

"Your Belt has certainly done me a great deal of good in every way, and I shall always recommend your Belt to anyone I know that is in need of it."—ROBERT DICK, Kimberley, Ont.

"I write to let you know that my health is very good. My back is about cured. The benefit I received from the Belt is well worth the price I paid for it. The advice alone is worth the money twice over. My friends tell me that I am looking fine. I tell them I don't know whether I am looking fine or not, but I can tell them I am feeling more than fine. I shall speak well of what you have done for me with your Belt and advice. Wishing you every success, I remain, Yours very truly, W. H. BELDING, Chance Harbor, N. B."

I know no better way to prove my confidence in the wonderful curative power of my Belt than to cure you before I ask my pay. Can anything be fairer than that?

My confidence in my method enables me to offer the Belt on trial, and one who can offer me reasonable security can use my Belt at my risk and—

PAY WHEN YOU ARE CURED.

I have a nicely-illustrated book which every man should read. I will send it, closely sealed, FREE.

FREE BOOK: If you cannot call, then fill out this Coupon, mail it to me, and I will mail you, free, sealed, and in plain envelope, my Book, which contains many things you should know, besides describing and giving the price of the appliance and numerous testimonials. Business transacted by mail, or at offices only.—No agents.

Now, if you suffer, do not lay this aside and say you will try it later. Act to-day—NOW.

Put your name on this Coupon and send it in.

DR. M. S. McLAUGHLIN, 112 Yonge St., Toronto, Can.

Send me your Free Book, closely sealed, and oblige.

Name..... Address.....

THE SPICE OF LIFE.

A tourist in an out-of-the-way region of England put up one night at an amiable old lady's cottage, the village inn being full.

Now, the tourist was very deaf, which fact he took pains to impress upon the old lady, together with instructions to wake him at a particular hour in the morning.

On waking a good deal later than the time appointed he found that the amiable old lady, with a commendable regard for propriety, had slipped under his door a slip of paper on which was written:

"Sir, it is half-past 8."

A clergyman had conducted services in a theater in New York. "One of my theater audience," he said, "was a Scot from Peebles. This Scot told me that the sight of a clergyman in a theater reminded him of an experience he once had in London. He went to a melodrama at Drury Lane. A man in front of him looked familiar. To his surprise he recognized in this man his minister at Peebles. He leaned forward and laid his hand on the minister's black coat. 'Oh, Dr. Saunders McIntosh,' he whispered, 'what wad the people in the auld kirk say if I tell't them I saw ye here?' 'Deed, they wadna believe ye,' Dr. McIntosh answered quickly, 'an ye needna tell them.'"

A certain regiment was on the march from Philadelphia to Gettysburg, and the companies were ordered to move with a few minutes' interval between each, and to keep each other in sight, the band and drums leading.

The band soon got a long way ahead, and on reaching a bend, halted for a few minutes' rest. Presently up galloped a mounted officer in hot haste and shouted for the band sergeant.

"What do you mean," he said, "by getting out of sight of the leading company?"

"We were not out of sight, sir," answered the sergeant.

"What do you mean by telling me that,"

explained the officer, in a rage. "You were out of sight. I saw you myself."

BENNY KNOWS HOW TO DRAW IT.

A teacher in a certain Eastern school asked her class to draw a picture of that which they wished to be when they grew up. The pupils were diligently to work with paper and pencil, some drawing pictures of soldiers, some of men and fine ladies, etc. They all worked hard but one little girl, who sat quietly holding her pad and pencil in her lap. The teacher, observing her, asked, "Don't you know what you would like to be when you grow up, Anna?" "Yes, I know," replied the little girl. "I should like to be married, but I don't know how to draw it."