

**PAGES
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The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established
1866

Vol. XLIII.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1908.

LONDON, ONTARIO, OCTOBER 29, 1908.

No. 840.

EDITORIAL.

CEASE BREEDING TUBERCULOSIS.

At the recent Tuberculosis Congress held in Washington, D. C., a notable contribution, remarkable for the saneness, breadth of view and grasp of the subject which it betokened on the part of its author, was a paper on the Control of Bovine Tuberculosis, by Dr. J. G. Rutherford, V. S., Dominion Veterinary Director-General and Live-stock Commissioner, Ottawa. Judging from report, this deliverance, which we reproduce practically in full, excited considerable interest, and must have appealed to the common sense of the more practical element of the delegates present.

In his paper, which every stockman should make it a point to read, Dr. Rutherford quite thoroughly disposes of the idea of compulsory tuberculin-testing and slaughter of all reacting animals. The futility of this system as a means of eradicating bovine tuberculosis has been demonstrated in States and communities where the agitators have had their way, while the economic cost entailed by the compulsory slaughter of slightly affected animals in unfattened condition, and more particularly of valuable pure-breeds, is enormous.

The futility of the attempt at wholesale extermination results from a number of factors. In the first place there is a period of incubation of the disease ranging from eight to fifty days, depending somewhat upon the mode and degree of infection. This fact necessitates the retesting of herds to insure against the retention of animals which might have the germs incubating within them, and is a specially awkward snag to get around in event of the purchase of additional stock, involving as it would, test, isolation and re-test.

Considering the vagaries of tuberculin, especially on second, third and fourth tests, in the same herds, the necessity of thoroughly conscientious, wide-awake and experienced veterinarians to make reliable diagnosis of the disease, and the numerous ingenious methods adopted by owners, especially of pure-bred cattle, in order to defeat the test, the difficulties arising from the period of incubation are sufficient to exclude from the field of action this compulsory wholesale method of dealing with tuberculosis, except in small and circumscribed areas in which all, or at least a majority of the owners, are alive to the necessity of stamping out the disease, and willing to co-operate heartily with the authorities in bringing about that result.

Against the policy of voluntary testing—that is, testing in response to the applications of owners—the Doctor claims most of the arguments against compulsory testing also apply, with the additional one that under this system results in ridding a country of the disease would be very slow and uncertain. "Even Prof. Bang admits that under the experience of repeated and often disappointing results, the patience and courage of Danish farmers not infrequently fail, and they become weary of well-doing and lapse into carelessness." So that after discussing the Bang system, which, nevertheless, has much to commend it, and also a plan proposed by Dr. Nivan, of Manchester, Eng., which aims at the eradication of the disease from certain farms, and then gradually extending the area of operations as the system found favor with stock owners, Dr. Rutherford inclines to favor a combination of systems, which, however, he admits is itself open to many of the objections he had previously urged against other systems. "Dogmatize as we may," he concludes, "we are still groping, and in this as in other matters of a like nature, those who have delved

deepest are the least sure of their ground." Meantime, the call is for a general campaign of education among cattle owners and the public. "Bovine tuberculosis will be stamped out when individual owners realize that it pays much better to keep sound cattle than to lose money and feed-maintaining herds tainted with disease."

In this campaign of education the first question to take up is ventilation. Human tuberculosis is now treated with marvellous success by the open-air treatment, and in view of these facts, it is nothing short of disgraceful that we are yearly permitting thousands of animals to become infected, owing to the unsanitary conditions under which their owners insist on keeping them. As "The Farmer's Advocate" has long contended, "stockmen are breeding tuberculosis a great deal faster through neglect of ventilation than it would ever be possible to stamp it out by the promiscuous use of tuberculin and slaughter of diseased animals."

The paper then refers to the progress of an experiment being carried on at Ottawa for the last three years, with the herd of forty-three cattle (of which twenty-one were dairy cows) formerly kept at the Maritime Experimental Farm at Nappan, N. S. On test, twenty-eight of these had reacted to tuberculin, and the whole herd was brought to Ottawa and submitted to the open-air treatment, with the threefold object: first, of ascertaining the effect of open-air treatment upon the diseased cattle; secondly, to ascertain to what extent healthy cattle kept in contact with diseased cattle, under open-air conditions, are subject to infection; thirdly, to ascertain what proportion of healthy calves could be reared from diseased cows, kept without any precautions under open-air conditions. The cattle have had no shelter but sheds, and excepting a few of the weaker animals, have been fed nothing but hay during the three winters they have been under supervision.

Results to date have been, on the whole, encouraging. Only one original reactor has broken down from generalized tuberculosis, and another has been killed, owing to tuberculosis of the udder. Of the healthy animals kept in contact with them, feeding from the same sacks, grazing over the same ground, drinking from the same pool, not a single one has become affected, in spite of the fact that from time to time animals suffering from acute generalized tuberculosis have been introduced into the herd and allowed to mix freely with the original members. Of the calves dropped and reared by tuberculous cows, seventy-five per cent. have so far failed to react, while twenty-five per cent. reacted at ages varying from four months to a year. One calf died at six weeks old from generalized tuberculosis, this case being considered as probably congenital. Commenting on this result, Dr. Rutherford remarks that while it assists in proving that young animals can be and are most frequently affected through the digestive system, it also shows that in the case of adults infection through the air passages plays an important part.

"Closer to nature" is the slogan of the age; apply the advice to the keeping of cattle. Nature has furnished our animal friends with means of protection against ordinary climatic conditions, and most of the diseases and affections to which they are subject have been caused and are continued by irrational artificial conditions imposed upon them. Away with the dark, stuffy, filthy stables, especially the cellarlike basement stables. Give us airier stables, more ventilation, more light, more outdoor exercise, with an ample supply of wholesome food, and then tuberculosis may, perhaps, be successfully weeded out.

PREPARE FOR ALFALFA.

Alfalfa is yearly becoming more widely distributed on Canadian farms. Its benefit to the soil and its high place among the feeds provided for live stock, demand that it should be much more widely grown. Some may have tried it and been unsuccessful, but if every farmer would discuss the question with a neighbor who has had encouraging results, or study the methods as outlined in bulletins and articles in "The Farmer's Advocate," efforts directed along the lines advised should prove generally successful in 1909.

The main essentials are well-drained, thoroughly-prepared soil, with abundance of lime and the mineral elements of fertility, clean seed of strong vitality, and careful treatment the first season. A mellow, well-pulverized seed-bed is required for all such crops, so that the comparatively small seeds may be closely surrounded by soil particles. If strong seed is put into such soil at any time during spring or early summer, while there is a supply of moisture sufficient to cause the seed to germinate and to give the young plants a good start so that the deep-going roots have stretched to such depth that they derive nourishment from the deeper soil, nothing but the severest winter and early spring weather will result in failure. Prepare at least a small area this fall, preferably corn or root ground that was well enriched for the present season's crop, work up and pulverize next spring, and sow it at convenient season. Clip it in the summer when it is fit, but leave the growth of late summer and fall to serve as a surface protection and to hold the snow, and the result will, doubtless, in most cases, be such as to induce the sowing of an increased area the following season.

DRAG BEFORE THE FREEZE-UP.

The split-log drag can be used to first-class advantage in autumn, in keeping the road surface smooth and neatly crowned, so as to shed rain water and thus preserve the subsoil in firm, dry condition. It cannot be too strongly impressed on everybody concerned that, as King says, bad roads in spring are largely the result of putting a lot of mud and water into cold storage in the fall. The moisture being acted upon by frost expands, and in expanding, disrupts the bond of the road, disintegrating its particles and converting the earthy bed into a condition better as a seed-bed for spring wheat than as a place to drive. At this season, therefore, particular attention should be given to providing clean channels and open outlets for the ditches at the sides of the road, as well as a smooth, even-graded surface on the driveway itself. Now is the time to insure reasonably good roads next spring.

Not only should the roads be dragged after every rain of consequence, but special effort should be made to get over them just before they are liable to be frozen up for the winter. Last fall several of our road-draggers succeeded in catching their roads at this critical juncture, smoothing them off just before they froze up for good. The result was beautiful wheeling over driveways as smooth as racecourses, and when sleighing came it was not marred by big lumps of clay protruding through the beaten sleigh tracks. In short, the result was good road-bottoms all winter long and a decided benefit the following spring. Watch your road this fall and try to drag it at this important stage. Supposing the freeze-up does disappoint by hanging off longer than expected, keep on dragging till winter does set in. Perseverance is likely to be rewarded, and every dragging will do good.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
WINNIPEG, MAN.

LONDON (ENGLAND) OFFICE:
W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,
London, W. C., England.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.
2. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
3. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland and Scotland, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s.; in advance.
4. ADVERTISING RATES.—Single insertion, 25 cents per line, 10 lines. Contract rates furnished on application.
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HORSES.

ACTION.

In this country the term action, by universal consent, refers to the trotting gait. It is common knowledge that, however good an animal may be in external conformation, without action he fails to command attention, and is relegated to the drudgery of his kind. The trot is a gait in which the limbs are moved diagonally. The off fore and the near hind limbs reach the ground simultaneously, and this is repeated by the near fore and off hind members.

The relation of the feet when brought to the ground will vary for each individual, or for the same individual under different circumstances. Sometimes the hind feet are brought to the ground behind the fore ones; at others they fall more or less exactly upon the same spot, while in some, again, they extend for some distance in front of them.

I note several varieties of movement are distinguished by the French as the "short trot," "the ordinary trot," and "the long trot."

All these several relations exhibited by the feet while moving may be seen in the same animal at different times, while in some horses one or the other is more or less constant under different circumstances. As to pace, the extent of ground covered in the action of trotting in a given time, or, in other words, the length of the step, differs in different horses. In some it is long and reaching, in others short and choppy.

No doubt it has relation with the age, length of limb, the force and extent of the muscular contractions, and to other points in development and conformation which need not be referred to here. The problem, however, is very difficult of satisfactory solution, owing to the many factors by which it is influenced. It will, however, be remarked that in this respect considerable difference is noticed in different animals. It will be observed that many small horses will outpace animals hands higher than themselves. In these cases explanation will be found in the fact that the rapidity of movement of the limbs in the former is much in excess of those of the latter, and that the long step of the larger horse is equalled or exceeded by the more frequent repetition of the step in the smaller one.

Quite apart from pace, the trot should be marked by symmetry of action; however good the fore action may be, unless the movements behind are in harmony with it, the gait will lack that grace and beauty which go to make up a good horse. It is noticeable in some animals that the knees are freely flexed, the stroke of the limbs is parallel with the long axis of the body, and the step is light and easy, but there is frequently in these cases a marked deficiency of forward propulsion. The hind action in such animals is wanting in that full and complete flexion of the hocks which impels the body forward and gives harmony to the movements of the whole. When this defect exists, the fore action is seldom of that far-reaching character which obtains in animals otherwise constituted.

The converse of this is seen in those cases where the fore limbs are shot out in a more or less straight line, and the contact of the foot with the ground appears to fall upon the heels. There is in these cases only slight flexion of the legs, but the hind limbs are advanced in a vigorous manner, and the body is thus impelled forward. Although an unsightly mode of action, the gait in this instance is decidedly progressive, and the pace much increased.

Horses with high-striding action behind sometimes allow their hind limbs to dwell momentarily in a state of extreme flexion. This, however, is not a constant condition of the gait, and, being of a temporary character, quickly passes away as the animal cools down and settles into his natural stride. Not the least important point to be considered in this gait is the manner in which the feet are brought into contact with the ground. In some horses, for various reasons, the body falls upon the limbs with great force, and the sound emitted by the feet is strikingly loud, while in other animals it is hardly noticeable. In these horses the touch of the feet upon the soil is light and airy, and in contrast with others there is little loss of time in the movement. Horses with loaded upright shoulders are amongst those of the class referred to, and others in which the axes of the limbs are faulty, the body sways from side to side, and the feet are made to hit the ground with unnatural force.—Prof. Wortley Aye, in English Live-stock Journal.

HORSE CLASSES AT FAIRS.

The classification of horses at the annual exhibitions frequently furnishes a topic for considerable criticism. Where is there a place for several sections making up what is called the general-purpose class? Even at some of the larger shows it is impossible to discern at a glance whether the string brought before the judge should be classed as carriage horses or not. In some instances many specimens are nothing but light draft horses. The fact that no definite description of the class seems possible is the strongest backing in behalf of having it eliminated from the prize lists, or at least so cut down that the funds of the society would not be paid to such an extent as an encouragement to the rearing of a mongrel horse.

Horse judges of repute do not hesitate to give their opinions in no uncertain words. W. F. Kydd, of Simcoe, who has known Clydesdales of high quality in Scotland since he was big enough to know what a horse is, and who for years has made the awards acceptably in horse-rings in all parts of Canada, after attending eight of Ontario's leading county fairs this fall, discussed the question with a representative of "The Farmer's Advocate" recently. "In connection with the horse exhibits at our fall fairs," said Mr. Kydd, "I would like to see the general-purpose class dropped from the prize list, with the exception of one section for team and another for single horse. There is no special place for the general-purpose horse to fill. He is not particularly useful any place, except on the farm. What is he but a mongrel-bred animal? Should agricultural societies offer premiums for young men to breed such horses? Can it be called educational? It is pointed out that the general-purpose horse is one that can plow and haul a heavy load of grain or hay, and also be suitable for driving in a buggy. What can fill the bill except an overgrown carriage horse? There are four standard classes that the market demands, viz.: Draft, or agricultural, carriage, road and saddle. These are what the young men of our Dominion should be encouraged to produce.

"As to my reasons for giving prizes for team and single horse: There frequently are some horses that are misfits or freaks of exceptionally high quality. They belong neither to the agricultural nor carriage classes. Reasonable prizes for such specimens would not be out of place, but under no circumstances should premiums be given that would encourage the rearing of such animals."

"Some fairs, also," continued Mr. Kydd, "have a strange classification for carriage horses and roadsters. The division is arrived at on a basis of height, e. g., carriage horses, 16 hands and over; roadsters, under 16 hands. With such system of classifying, a high actor of 15 hands 3 inches must necessarily go in the roadster class, while a capital road horse of 16 hands is put into the carriage class."

EXPORT DUTY ON BREEDING MARES SUGGESTED

The imposition by Canada of an export duty on mares is a proposition suggested to "The Farmer's Advocate" by a prominent horse exhibitor, his idea being that we should discourage the export of breeding female stock, letting foreign purchasers take geldings if they want work animals. The imperative requirement of the horse-business in Canada, it is argued, is a large number of high-class mares, any legitimate means calculated to prevent decrease of the supply being considered justifiable.

It cannot be said that there is any considerable export trade in mares going on at present, but from time to time a limited number of these find their way over to Scotland or across the International Boundary Line, and the trade is liable to be resumed at any time.

Against the proposal it might very well be urged that as the trade is small, legislative interference were scarcely worth while. The maintenance of unrestricted free trade in pure-bred breeding stock (excepting such quarantine and other regulations as might be advisable to exclude disease) has much to commend it, as the freer the exchange of pure-bred breeding stock throughout the world, the better it is for the progress of the breeds whose blood is so interchanged. While it is conceivable that in special cases, as in the founding of a breed, the temporary restriction of export might prove advantageous to such breed, as well as the country of its origin, still this argument would appear to be outweighed in the majority of cases by the larger and more far-reaching interests that would be served by the

maintenance on the part of all countries of free trade in registered breeding animals. In this connection it should be borne in mind that the adoption of a policy of export duty on the part of Canada might be imitated to our disadvantage by other lands.

Of course, so far as grades are concerned, this argument does not necessarily apply, seeing that its principle is already violated by the maintenance of import duties by various countries. If the maintenance of import duties on such stock is justifiable to keep it out, there is certainly more to be said for the imposition of an export duty on breeding females to keep them in the country maintaining the duty.

On the other hand there are several anomalies that would result from applying an export duty to grades and scrubs, but not to pure-breds. In the first place, it would look, on the face of it, as though we valued our grades and mongrels above our registered mares. In the second place, such a duty would, in the event of the resumption of an export business, tend especially to discourage the export of the cheaper class of mares, as the duty could be more easily paid on a valuable than on a poor animal. Taking it all around, therefore, there is a good deal to be said in favor of allowing matters to stand as they are.

These few thoughts are thrown out without attempting to exhaust the subject. If correspondents wish to take up the issue, space will be available to publish any well-considered views.

THE GENERAL-PURPOSE HORSE.

While as a market proposition and a generally advantageous line of horse-breeding for the majority of farmers to engage in, the draft horse has a deservedly strong hold on public favor, it must be admitted that for farm work alone, leaving out the prospect of selling an occasional gelding at a fat price for city service, the general-purpose horse can put up a hard claim to get over. The following remarks by a writer in Coleman's Rural World will find echo in the minds of many readers. Admitting that the increasing scale of agricultural implements is adapted to utilize heavier draft animals, there still remains a very acceptable place for one or two horses of the general-purpose description on the average farm, though the wisdom of a deliberate attempt to breed such horses for a purely farm demand is questionable, to say the least. The misfits and hit-and-miss products of miscellaneous lines of breeding may be depended upon to produce what we need of this class. When breeding for sale, breed for a special purpose; that is to say, for a special market class.

"Just what a general-purpose horse should be may be a question of controversy. Men may differ greatly in their opinions, but I find that the standard favors a horse ranging from eleven-fifty to twelve-fifty, with possibly a shade lighter or heavier. While a chunk is not allowable, a leggy, rangy horse is also barred. The class is often found to contain members somewhat on the roadster order, but heavier. The object of the class is to produce an animal that can do a maximum amount of farm work, or go on the road to either drive or draw.

"For heavy work, or for driving, the class cannot be said to equal the breeds that are bred specially for those lines, but they come so near it under ordinary requirements that the difference is not noticed. Leastwise the general-purpose eliminates the necessity of keeping two horses to do the work of one, as to driving and drawing.

"There are places for each class, but I think that the general-purpose horse is the most satisfactory class for the farmer of ordinary means. I am raising Percherons. They come handy here in the oil field where there is a great deal of teaming and but little farming, but I do not find them so satisfactory for general farming as I did the old-fashioned Morgan. I cannot see that there is any gain in strength, while there is a material loss of time. I could plow about half an acre a day more with my big Morgans than I can with my Percherons. There is a greater difference in any kind of light work that requires more speed than strength.

"It is generally conceded that the general-purpose horse is better muscled and has more endurance for his size than larger breeds. I think the argument is not altogether faulty. It always seemed to me that this class stays in work condition better than most other breeds without becoming too fat or too thin. You may think that a horse of the general-purpose lacks weight, but you will find that what he has is of the proper stuff to make him strong and tough.

"I give these remarks from my personal observations and experience. My observations have been of men as well as of horses. My experience has been in my own case, too, as I am built on the draft-horse order."

LIVE STOCK.

OIL CAKE.

"What is it?" is a question which may occur to some who occasionally notice the use of the name in connection with the feeding and finishing of stock for the show-ring or market.

A visit to the Dominion Linseed Oil Company's mills in Baden, Waterloo County, Ont., will tell the story, and prove most interesting to those who are engaged in stock-raising. There flaxseed from Ontario, from Manitoba, and from foreign countries, may be seen starting on its way through different machines and presses until we see it divided into two products, viz., raw linseed oil and oil cake. When ground and heated, it is subjected to great pressure, to squeeze out the oil. The residue, oil cake, is taken out of the presses in oblong cakes, some twelve inches wide by twenty inches long, and about an inch in thickness.

In that shape they are, for the British markets, placed on end in strong sacks, side by side. The last ones are forced in tight by machinery, so as to make the packages quite solid.

For the home trade, the large cakes are ground into two grades. One is made fine, and is quoted as oil-cake meal. The other is coarse ground, and termed nutted oil cake.

The latter grade is the one preferred by the majority of feeders. The finer meal, even if mixed with bran and grain, is apt to adhere to animals' nostrils, and especially so in the case of sheep, which tends, probably, to some animals taking a dislike to it.

Let us look into a few facts regarding its use and who are the larger users of cake. Canadians use it sparingly, while the successful British farmer, be he a breeder of pure-breds, or a feeder for the market, makes liberal use of it, in different combinations.

In Britain there is an inducement held forth to the tenant farmer to use oil cake. An outgoing tenant who feeds cake is allowed by official valuers, certain remuneration for that fed the years previous to the expiration of the lease. So much for the more recent year, a lesser amount for the year before that, and still less for the third and last one listed. There it is recognized that cake fed enriches the soil as no other feed will, it being the only kind for which allowance is made to the tenant leaving, and the same is charged up to the incoming one. Illustrating the appreciation of it in Scotland, it is heard occasionally said, of some unprogressive farmer, "Why, he don't know enough to feed oil cake!"

Will it pay to feed it in Canada, considering the lower prices per ton of meals from our home-grown grains, is the important point for us to get information about. When we read the analysis of cake, noting its richness in flesh-forming material, its value appears, as a part of the grains to be fed, at \$32 to \$33 per ton, there

is little room for doubt as to its being cheaper than oat chop at \$26, barley meal at \$25, or pea meal at \$30.

Even were it no cheaper, there seems to be a something in oil cake, as in turnips, which even an analysis does not reveal. It requires some fair and careful experimenting to fully convince some as to the goodness of cake.

It is not well in fattening cattle or lambs, to begin the use of it, or even of meal, during the first weeks, or perhaps months, according to the time of indoor feeding. After meal has been given in small quantities at first—two to three pounds daily, and gradually increased—oil cake may be profitably added in the later months. It is well to go slow at the start; one pound daily, and increased weekly a pound, until three to four are daily fed, appears to give a touch in handling which is pleasing to the expert dealer in fat stock.

For several years on Fairview Farm we have fed rape off in the months of September and October, stalling the bullocks intended for the Christmas market in early November, then getting them on full feed of turnips, hay, meal and cake as soon as found safe. It has been found very satisfactory to finish 1,400-pound steers on 10 pounds meal and fully 4 pounds nutted oil cake. Not only was the satisfaction obtained in dollars, but the experiments have proved beyond doubt that fairly full-fleshed and well-bred cattle can be profitably carried to a higher finish by the use of highly-concentrated feed, as cake. Another fact worth remembering is that the markets are ready to pay a profitable margin for the well-finished bullock of the right kind. And another consideration is the superior killing quality of beef from the cake fed bullock. The cattle finished as described have for three years past been slaughtered for a high-class Toronto trade. The dealers handling them have always expressed full satisfaction with the killing results, and also reported their customers as being well pleased with the cuts furnished them. The fact that this season's bunch is already contracted for, before the middle of October, by some dealers, is fairly good evidence of how they have in past years been suiting a good trade. Summing all up, the results in feeding cake liberally are as follows: A fairly good profit in finishing high-priced, full-fleshed, but well-bred cattle, and using cake largely in so doing; a well-satisfied stock dealer, and customers are so pleased as to want more and more of such meats. And it is a certainty that much of the first cost of the cake is refunded in the enriching of the soil.

So satisfied are we with the use of cake, that yearly we are increasing the use of it. This year we shall feed some six tons, at least.

It is a kind of feed that will be more appreciated when a better class of cattle for the block shall be bred. With good breeding, the feeding of even what may at first appear as high-priced feeds, will be practiced freely instead of comparatively rarely.

JOHN CAMPBELL,

Victoria Co., Ont.



Lansdowne (imp.) [8 50] (14228).

Clydesdale stallion. Bay; foaled 1906. First in class and champion as best Clydesdale stallion any age, Canadian National Exhibition, Toronto, 1908. Imported and owned by Graham Bros., Clarendon, Ont. Sire Everlasting (11331).

The Control of Bovine Tuberculosis.

[Address by Dr. J. G. Rutherford, V.S., Dominion Veterinary Director-General and Live-stock Commissioner, before the Tuberculosis Congress, held recently in Washington, D. C.]

On the official programme the subject assigned to me is the "Control of Bovine Tuberculosis in Canada," the last two words having been added to the title originally sent in by me. I have but little to say on the control of bovine tuberculosis in Canada, inasmuch as while in some districts, under municipal and Provincial laws, efforts are being made to control the disease in dairy herds supplying various centers of population, very little is now being done by the Federal Government, through the Health of Animals Branch of the Department of Agriculture, which is in my charge.

CANADA'S POLICY CONSERVATIVE.

Although for some years, at a period prior to my assuming office, a very considerable amount of testing with tuberculin upon the application of owners was carried on, no appreciable benefit was found to result, and, as a matter of fact, we now confine ourselves to the testing of cattle imported or exported for breeding purposes, those on the Experimental Farms, and a few other herds which have been placed by their owners under the direct control of our officers. We, however, on the request of owners of cattle who desire them tested, supply tuberculin free of charge to any reputable, qualified veterinary surgeon, on condition that he will send to the Department the results of the tests made by him, on charts which we furnish for that purpose.

All cattle reacting to tuberculin in Canada, save those privately tested, are permanently earmarked, by cutting a large T out of the right ear.

I may as well frankly state that the reason for this apparent inertia is that, so far, no satisfactory intelligent method of dealing with bovine tuberculosis has been evolved, and we deem it wiser, before taking action, to await the results of the investigations now being conducted by veterinary scientists in various countries, in the hope that some better way of dealing with the problem may be discovered.

Our knowledge of tuberculosis, the tuberculin test, and of their vagaries, has all along been defective and incomplete, and undoubtedly is so to-day, and when we bear in mind the many legislative mistakes which, owing to this lack of exact knowledge, have been made in the past, it must be admitted that caution is commendable, and that, before taking any definite departmental action involving the large interests which are at stake in such a country as Canada, it is reasonable that we should "look before we leap," and guard, as far as may be, against the possibility of having to recede, more or less ignominiously, from a position once taken.

UNWISDOM OF COMPULSORY TESTING AND SLAUGHTER.

Many of our medical friends, and some veterinarians whose zeal outruns their discretion, advocate compulsory testing and the slaughter of all reacting animals. At first sight, to men lacking practical experience, and, perhaps, devoid of responsibility, this policy may appear a very simple solution of the problem. That it is very far from being so, however, needs but little demonstration to an audience of this nature. All practical veterinary sanitarians, dealing in large matters, are, even without taking into consideration the painful experience of those communities which in earlier days were rash enough to adopt it, well aware, not only of the great difficulties to be encountered in carrying out such a policy, but of the fact that under ordinary circumstances, in spite of the great economic waste involved, its results are by no means so satisfactory as its advocates would like to have us believe. Most of us can remember the time when the majority of veterinarians, many of whom should have known better, believed that if a herd of cattle were tested, the reactors destroyed and the premises disinfected, the disease was stamped out, and the owner might thereafter be left to follow his own courses.

Intelligent men have, of course, understood from the beginning that there must be, in the very nature of things, a period of latency or incubation between the time of infection and that when an infected animal would react to tuberculin. This period was fixed in 1899 and 1900 by contemporaneous but entirely independent experiments, carried on by the Tuberculin Committee of the Royal Agricultural Society of England, and by Drs. Nocard and Rossignol, under the auspices of the Societe de Medecin Veterinaire Pratique of France. The results in both cases were practically the same, and showed the period of incubation, while depending somewhat upon the mode and degree of infection, to range from eight to fifty days. This fact, affecting vitally as it does both the original herd and any additions or replacements which may be made, is in itself a very serious obstacle to the satisfactory working out of a policy of compulsory testing and slaughter, even with liberal compensation. Taken in conjunction with the vagaries of tuberculin, especially on second, third and fourth tests in the same herds, and the numerous ingenious methods adopted by owners, especially of pure-bred cattle, in order to defeat

the test, it is sufficient to exclude from the field of practical action this method of dealing with tuberculosis, except in small and circumscribed communities, in which all, or at least a majority of the owners, are alive to the necessity of stamping out tuberculosis, and are willing to co-operate heartily with the authorities in bringing about that result.

LIMITATIONS OF TUBERCULIN AS A DIAGNOSTIC AGENT.

This conclusion on my part has not been rashly arrived at. Ever since tuberculin was first used as a diagnostic agent in bovine tuberculosis, I have been studying its action, and during the whole of that period my opportunities for such study have been considerably greater than fall to the lot of the average veterinarian.

Let us go a little more into detail. A herd of, say, one hundred cattle, kept under ordinary stable conditions, is tested, and twenty-five reactors are found. These twenty-five animals, together with any which, owing to the disease being in an advanced stage, may fail to react, but which are detected by clinical examination, are slaughtered and the premises carefully disinfected. It is not so very long, as I have already said, since many veterinarians were teaching that such a herd was safe and sound, and that provided any animals added were carefully tested before being brought into contact, no further danger need be apprehended. This is, of course, very far from being the case. In the first place, a retest after three months will, depending to some extent on the virulence of the particular infection—a point of great importance—and the sanitary conditions, reveal, perhaps, from five to ten new reactors. Even after these have been destroyed and the premises again disinfected the herd is by no means safe. The ten reactors, taking that as the number, have been living in close contact with the remaining sixty-five, and it is quite likely that three months later several of the latter will be found to be affected. Here also comes into play the uncertainty of tuberculin in repeated tests, a most serious consideration. In spite of Professor Valle's important and valuable discovery, which I may say does not by any means apply in all cases, it is quite within the bounds of possibility that a number of animals, affected to a greater or less degree, will fail to react when tested for the third or fourth time. This acquired tolerance to tuberculin is one of its most serious limitations, and constitutes another difficulty somewhat hard to overcome. Let us admit, however, that after the lapse of a longer or shorter period and a number of carefully-conducted retests, the survivors of the original herd are properly pronounced healthy.

We must now take into consideration the question of additions and replacements, one which, from a business standpoint, is in the majority of instances of paramount importance to the owner. It is not enough to have the new animals tested before bringing them onto the premises. The same limitations, viz., that of the incubative period, applies to such tests as to those with which we have been dealing. New arrivals must be isolated, not only from the original herd, but from each other, and submitted to a retest at the expiry of at least three months before being allowed to come in contact with any other cattle.

Two further points here demand our attention. We have hitherto, presumably, been speaking of tests honestly applied to the cattle of an honest owner, and by a capable, intelligent and experienced veterinarian. We must now first consider some of the nefarious methods employed by dishonest and unprincipled owners to nullify the test and so defeat the end in view.

The old method of dosing beforehand with tuberculin, although still followed in many herds, has largely lost its value through the discovery of Professor Valle, above referred to, and is now, as a rule, only employed when the testing veterinarian is agreeably complacent, or a few years behind his age. It has, among the more astute breeders and dealers, been largely superseded by the practice of administering one or other of the modern antipyretics, combined for the sake of safety with other drugs, to such animals as are known to be tuberculous, or which show any rise of temperature when undergoing the test. This plan is beautiful in its simplicity. Temperatures are quietly taken from half an hour to an hour before the veterinarian makes his rounds, and the febrifuge, mixed with a little sugar and disguised in a handful or two of meal, is licked up by the animal without fuss or trouble. There is no drenching, no handling, no excitement; the temperature drops, and although there may be and often is thermal irregularity, there is no distinct rise, and, above all, no tuberculin arch.

This brings us to the second of my two further points, viz., the veterinarian making the test. While, with all its limitations, I have great confidence in the diagnostic properties of tuberculin, I must confess to a feeling of suspicion with reference to all charts that are in any degree what I may term colorless, unless I know that the man who signs them is an honest, conscientious, wide-awake and experienced veterinarian. Too many men take it for granted that everything is fair and above board, and depending entirely on their thermometer readings, allow themselves to be hoodwinked by dishonest and unscrupulous owners. I could go into many details, and perhaps furnish some amusement by recounting a few of the artful dodges resorted to

in order to keep the veterinarians away from his cattle between temperatures, so as to permit of their being safely manipulated, but time will not permit. One thing, however, should be emphasized, viz., the fact that in the overwhelming majority of cases we have, in addition to the temperature rise, a distinct clinical reaction, some of the most salient features of which may be, and often are, only temporary, while others persist until at least twenty-four hours after injection. Among the temporary signs which may be noticed, as a rule, from six to twelve hours after injection, are, in severe cases, rigors, often accompanied by staring coat, general excitation and frequently diarrhea. In less well-marked cases we have coldness over the loins, quarters, thighs and tail, sub-acute excitation and general malaise. Even when these symptoms have passed off the animal maintains a standing posture, and is more or less stiffened; there is loss of appetite, rumination is suspended, and in milk cows the flow of milk is diminished.

Close attention to and observation of the animals undergoing the test are, in my opinion, indispensable. Even with them it is possible for mistakes to be made; without them the tuberculin test is very apt to be badly discredited. The older veterinarians here will recollect that, prior to the discovery of tuberculin, much attention was paid, both by teachers and practitioners, to the clinical diagnosis of bovine tuberculosis. Of late years this phase of practice has been almost entirely lost sight of, the younger men practically depending on tuberculin as a diagnostic. This state of affairs is regrettable, and should be remedied by cultivating with regard to cases of tuberculosis that habit of painstaking observation which alone makes for success in the diagnosis of most of the other maladies to which dumb animals are subject.

ECONOMIC WASTE OF COMPULSORY SLAUGHTER.

I might, perhaps, explain that the foregoing remarks on the necessity of care and exactitude in making tests are intended to emphasize the idea that only skillful and specially-trained men can with safety be employed in this work, no small difficulty in itself, when it comes to undertaking a universal and compulsory testing policy. There is still more to be said against compulsory testing and slaughter. Many reactors are but slightly affected, and while, in the case of beef cattle in good condition, the loss from their slaughter may be insignificant, it is a very different matter when valuable pure-bred herds, or even common grade stock, thin in flesh, are condemned. It is true that with the latter the question of compensation may be more easily settled than with the former, but the matter of economic waste is only one of degree, for while the pure-bred reactors might live out their natural lives and produce much valuable, and, with proper precautions, healthy stock, the thin grades might be fattened and slaughtered under careful supervision for purposes of human food. For the reasons given above, I am convinced that, at least on any large scale, the policy of compulsory testing and slaughter is not a practicable one.

QUESTION OF VOLUNTARY TESTING.

Turning to the policy of voluntary testing, or testing in response to applications from owners, now followed in certain of the United States and in several of the countries of Europe, I would point that not only do most of the arguments against compulsory testing apply to it with equal force, but several other factors come up for consideration. Among these, perhaps, the most important is the fact that in testing only those herds in a country which are voluntarily submitted to the authorities, the progress made in the direction of eradicating tuberculosis must, of necessity, be not only very slow, but very uncertain. Even Professor Bang admits that, under the experience of repeated and often disappointing tests, the patience and courage of our Danish friends not unfrequently fail, and they become weary of well doing and relapse into carelessness. This phase of the matter is one which must be taken into account, and when with it is considered the fact that the last to ask for the test are, as a rule, the breeders of pure-bred stock, whose herds are the principal agents in disseminating disease, the ultimate ineffectiveness of voluntary testing is pretty clearly demonstrated. Owners must obtain fresh blood from time to time, and unless a man is heart and soul with the authorities in their efforts to clean up his herd, and takes every possible and minute precaution accordingly, it is, so long as tuberculosis exists in the country, only a matter of time until his stock relapses into a condition of disease.

In this connection, I have read with much interest the plan proposed by Dr. Nivan, Medical Health Officer of Manchester, and supported by Professor Delepine and Mr. Brittlebank, the Chief Veterinary Officer of that city, which includes the forming of disease-free inlands by eradicating tuberculosis from certain farms, and gradually extending the work over small districts, to be still further enlarged as the system finds favor with stock-owners. While there are some features of the scheme, such as the spending of public money in specially-selected localities, to the exclusion of other taxpayers, and the supplying of sanitary buildings, through bringing pressure to bear on landlords, or otherwise, which are scarcely applicable to conditions in America,

(Continued on page 1677.)

OIL CAKE A GREAT FEED AND FERTILIZER.

Editor "The Farmer's Advocate":

Replying to the questions submitted to me, incidentally let me remark that most of my experience was gained on a farm occupied by my father in England. He was one of the best farmers I ever met. The equal with William Torr or Hugh Aylmer.

Let me again remark he had a great grazing farm in the Trent Valley; some of that land would carry a steer to the acre, with five sheep added. These cattle, when first on pasture, had no artificial food. After the scouring ceased (to which all cattle are subject when first on grass), and when they were getting "greasy," as the butchers said, they then had cotton-seed cake, in boxes. The decorticated article was used, as the amount of lint and husks caused impaction and often death. But when in stable, linseed-oil cake was used for stall feeding. As much as seven pounds a day was not thought extravagant. With my limited experience in Canada, I am convinced my good father was right for several reasons, amongst others the question of keeping up the fertility of the soil.

Your first question is partially answered by the foregoing portion of my letter. I would give beef cattle all the roots and good oat straw or cornstalks for a while, then finish with oil cake, corn and clover hay, or lucerne (alfalfa), cut up.

Sheep need no grains outside good pasture and lucern, except for show—and that is another story.

Swine fill their bellies so that they can't raise a grunt, and if they are doing well nothing comes amiss to them, but they want a warm bed.

The dairy cow is a proposition by herself. At her best, a hothouse plant, where gluten meal and all condiments find use, "go the pace and die early."

I don't know that it would be out of place to mention here what I once did to win a prize at New York State Fair, held at Buffalo about 1866 or 1867. Old Ayrshire Lass (imp.), thirteen years old, was prepared to win—calved right to date—fed as we thought best, and then fed her own milk. She gave over 80 pounds a day while under test at Buffalo, and won the Gold Medal. When one pail was full she looked around for it, but I had another one ready. She was a grand cow, but I oft wondered whether I did not help her to win.

Without any hesitation I am positive that no other purchased food can compare with linseed cake as a supplementary purchased feed for steers. It not only leaves a profit from feeding to the animal, but leaves almost as big a dividend to the farm.

My only hope for Canada is that after having a dead-meat trade established, all wheat must have an export duty. What we want on the farm is the refuse of our wheat crop, we want the bran and offal—call it what you may. Let those who want the flour (none better) have it, but the farm requires some recognition. We want all the offal on our farms. Let the flour go to the best advantage. Europe must have it, and will have to pay for it even higher than now. The United States requires it, and must have it. The hard-wheat grounds are now entirely in our Northwest on this Continent. But what a crime to export wheat, when we can mill it at home and save the offal for the farm, and give employment to many hands, mill operatives, coopers—besides all laborers or mechanics connected or interested therein.

R. G.

Middlesex Co., Ont.

SILAGE AND CHAFF ARE ECONOMICAL ROUGHAGE.

Editor "The Farmer's Advocate":

In answer to your questions concerning the economical feeding of farm stock, I would say: In feeding beef cattle our ration consists of about three-quarters of a two-bushel basket full of wheat chaff and silage, mixed in equal proportions, and about two pounds of meal, three times daily. The meal ration is increased about one-half a pound towards the last. Besides this, they get two feeds of hay. Chaff and silage, mixed in equal proportions, make a very good roughage for the economizing of meal.

Any man going into beef cattle or dairy cattle, would be foolish not to have corn silage, and I find that chaff is very good to mix with it.

Probably this system, which we employ, could be improved upon a great deal, but we find it gives very good satisfaction.

J. SPROAT.

Halton Co., Ont.

When a fairly well-bred grade Shorthorn steer, raised on skim milk, after having received a fair start on whole milk, fails to attain a weight of at least seven or eight hundred pounds at twelve months of age, there is something wrong with the feeding and treatment he has received.

SILAGE, STRAW, CLOVER, AND THREE POUNDS MEAL.

Editor "The Farmer's Advocate":

Replying to your enquiry re economizing the meal ration in feeding of cattle, I am more than ever convinced that in order to get the most profitable results, we must rely upon a ration the basis of which is corn silage, mixed with the straw from our grain crops (cut), along with a moderate allowance of clover hay. There is nothing will save the grains like the silage and clover hay. For feeding my beef cattle I use this ration mixed with a moderate allowance of our grains, mixed and ground along with the mill feeds (bran and shorts), and a little oil cake is also profitable.

At present prices of grain and mill feeds, I believe oil cake is the cheapest food we could buy to feed along with the grains.

With a good quality of silage and clover hay, great care should be exercised not to feed too heavy a ration of meal. Careful experience is continually demonstrating the fact that a lavish supply of meal along with 35 or 40 pounds of silage each day, with a little clover hay in addition, is simply money no better than thrown into the fire.

with skim milk, is needful. Older sows will winter well on roots, with a small grain ration in the morning, but will not produce strong litters on roots alone.

Corn silage is considered the greatest saver of meal in the cattle ration; alfalfa hay is also very helpful.

To economize the meal ration we like a combination of one-half well-cobbed silage, one-quarter mixture of turnips and mangels, balance lucerne (alfalfa) hay, well cured. The liberal salting of all feed, when mixing, is a great aid to digestion.

In reply to question three would say, oil-cake meal for cattle, low-grade flour mixed with barley meal for hogs.

The outlook for the cattle-feeder is certainly brighter than a year ago, better beef is the cry of the consumer. If we aim to supply that, better prices go to compensate us for the effort.

Oxford Co., Ont.

H. J. DAVIS.

FARMERS SHOULD FATTEN THEIR OWN STOCK YOUNG.

Editor "The Farmer's Advocate":

In feeding beef cattle we prefer the two-meal system, dividing the time equally night and day, watering once a day, after they clean up the morning meal. We get equally as good results, and economize labor.

The roughage used is half corn silage and roots, half cut straw, hay and chaff, mixed thoroughly, two feeds at a time, and as we follow the tied system, we place the meal on roughage in the manger. Last winter our meal ration was composed of oats and oil-cake meal.

This ration gave us splendid results. We fed as high as three pounds per head per day in the finishing period, and five lbs. of oat chop, and that only for a very short time. I believe a great deal of meal has been wasted in the past by too heavy meal ration in start of feeding period. Starting light and increasing very gradually has given us best results. Last year we wintered our young stock on roughage and alfalfa hay, and were agreeably surprised to find that they were in better condition in spring than other years when we had fed three pounds oat meal per day. Success in cattle-feeding depends as much on careful selection, care and comfort of the stock, as upon feed. I believe the time has

come when farmers generally should fatten their own stock, at as early an age as possible. In conclusion, don't overload with stock. Breed the best, feed them well, and you will find it a pleasant and profitable business.

Waterloo Co., Ont.

GAVIN BARBOUR.



An Artist's Conception of a European Pastoral Scene.

With an average of certainly not more than three pounds of grain per day, I have brought cattle through the winter and had them in prime condition for grass, many of them fit for export.

Huron Co., Ont.

THOS. McMILLAN.

ROOTS, SILAGE AND ALFALFA.

Editor "The Farmer's Advocate":

Your questions regarding the economy of the meal ration are most timely, not only for this year, but every year, as it yearly becomes more apparent that the stockman should produce such crops as will provide for the sustenance of his feeds that will make the same results and main-herds, or their sale in order to provide cheaper than the fertility of his acres.

The ration used here for beef cattle is a mixture of silage, roots, straw and hay, mixed, without meal for dry cows, with straw uncut after feeding, morning and night. For milkers, clover and alfalfa hay is used instead of straw; some oil-cake meal is added as the weather grows colder.

For swine, sugar beets pulped and mixed with barley, oats and pea meal, allowing it to stand some time before feeding, makes a cheap and successful way of wintering hogs over three months old, younger than that, ground oats and barley,

A common mistake of feeders who have a supply of straw or corn fodder to use, is in feeding this almost exclusively during the fall and early winter, saving the clover or alfalfa hay until spring. While corn fodder, chaff, or even straw, may be utilized to advantage as part of a ration, these are so very deficient in protein, i.e., the bone- and muscle-making elements, that they require a supplementary feed to produce satisfactory results. Clover or alfalfa hay contains a super-abundance of protein, and it is much better to use some of it, along with the fodder or straw, than to use these up first and then feed the clover or alfalfa alone. In case the hay cannot be got at, or is not on hand, a few pounds of bran, or, say, two pounds of bran and a pound of oil cake, are admirably adapted to supply the protein which the straw or corn fodder lacks.

It is more economical to keep stock in good condition than to let it run down and then build it up.

THE FARM.

ALFALFA FROM CHEMIST'S STANDPOINT.

With the increasing popularity of alfalfa as a fodder crop comes an increasing desire to know all about this plant, which already has done much for agriculture, and which promises to become a most prominent factor in improving soil, as well as in providing desirable feeding material in large quantities. At an Institute meeting at Fort Atkinson, Wisconsin, Prof. E. B. Hart, in discussing the chemical value of alfalfa, gave figures that place this crop very high in the list of those commonly used in feeding stock. Dealing with economic values the Professor, touching on useful and non-useful or digestible and non-digestible constituents, showed that proteids in particular were necessary for life, for the building up of the animal, for flesh-forming, and for taking part in all living processes of the animal body. It is a characteristic that most farm crops are low in this material, so low that when fed alone they do not produce normal development, necessitating so often the purchase of large quantities of concentrated materials—such as oil meals and wheat bran—as supplementary feeding materials. There is no trouble on the farm of making plenty of starch, sugar, fat and crude fiber, but it is a selected crop that is rich in protein.

"When a farmer asks of the plant what does it do for me, is it making me an abundance of food material?" says Professor Hart, "he is asking that plant a proper question, but it is only by a proper selection of certain types of plants, whose power to produce protein is a large one, that he has at his command the power of increasing the protein production on his farm."

Following are the food values of several ordinary farm crops in relation to useful digestible food products:

	Yield per acre.	Dry matter.	Total digestible matter.	Digestible protein.
	Lbs.	Lbs.	Lbs.	Lbs.
Alfalfa	34,100	8,000	5,280	875
Corn	30,000	7,500	5,025	360
Red Clover	18,000	5,200	3,200	491
Oats and Peas	13,000	3,120	2,521	350
Timothy	10,000	3,500	2,000	228
Rutabaga	31,700	3,400	3,000	278
Mangels	25,000	3,500	2,750	232
Sugar Beets	17,800	2,500	1,800	213

"Although in several cases the total digestible dry matter may be nearly alike, the alfalfa ranks highest among the forage plants in power to produce digestible protein. Even with red clover, which belongs to the same family as that of alfalfa, the yield is not so great, and, consequently, the amount of protein per acre that will be produced is not so large. Can you understand, then, why we emphasize the growing of some alfalfa? When we follow the table further we find that sugar beets, mangels and rutabagas, under favorable conditions, often yield as much digestible dry matter as alfalfa or corn per acre, but with a comparatively low content of digestible protein. There is nothing in the forage line that equals alfalfa in this respect."

It was claimed that five tons of well-cured alfalfa hay contained about the same amount of protein as forty tons of timothy hay, and also about the same as four and a half tons of bran. When it is considered that bran runs from \$20 to \$25 per ton, the value of alfalfa looms large.

"In the State of Wisconsin," said the speaker, "farmers spend as high as one million dollars for wheat bran every year. This is a conservative estimate, and the fact that you buy wheat bran and other concentrates, like cottonseed meal and linseed meal, for their protein content, emphasizes the importance of the high place alfalfa should take among the feeding material grown on the farm."

"I have emphasized the great productive power of alfalfa. If we should allow, for example, on the basis of their protein content, three dollars per ton for prairie hay, what would be the value of some of our other feeds? On such basis the comparative values for protein would stand:

Feedstuffs.	Value per ton when prairie hay is worth \$3 per ton.
Alfalfa Hay (average)	\$ 9.08
Red Clover Hay	5.82
Timothy Hay	2.48
Corn Fodder (stover)	1.71
Oat Straw	1.37
Alfalfa Hay, containing 12.9% digestible protein	11.05
Wheat Bran	10.53

CUTTING AND CURING ALFALFA.

"Others have told you all about cutting and curing this great crop, but I want to give a few chemical reasons for the procedure that should be followed in the cutting of alfalfa. It rests on a chemical basis. It rests upon this fact, that when the alfalfa is about

one-tenth in bloom, or just coming into bloom—the time you are advised to cut it—it is then, everything considered, at its highest feeding value. Its protein content is high, sugar and starch content are very high, and the indigestible food fiber, the material that is of little use to the animal, is relatively low.

"As the plant grows older, this crude fiber increases in amount at the expense of the sugar and starch, until you have, approximately, 2,500 pounds per acre of this indigestible material, while if you had cut it back at the proper time the amount of fiber would have been materially smaller. So this is the point I want to emphasize to you, that there is a chemical reason, and a very good one, for cutting your alfalfa in the early stages of bloom. When one-tenth in bloom, it contains 18.5 per cent. of protein; when one-half in bloom, 17.2; while in full bloom its content of protein is 14.4.

"Another interesting feature about this alfalfa plant is the relation of the stem part to the leaf part. The comparative relation of leaf to stem is greatest in the early part of the plant's history; at that time, for example, for 100 parts by weight of stem there is 73 parts by weight of leaves. In the late stages for every 100 parts by weight of stem there is approximately 49 parts by weight of leaves, and the leaves are the best part of the plant. It is in the early stage of the plant's growth that your cow or your pig will find in this plant its highest nutritive value. As the plant keeps growing its stem parts are increasing in greater proportion than is the increase in the leaf content, and in the early history of the plant the proportion of stem to leaf is less than it is in the later history of the plant. The reason I emphasize this is that the leaf is the most nutritive part of the plant and contains a large portion of the protein.

"For instance, for 100 parts of protein found in the stem, in an equal weight of leaves you will find 250 parts of protein. The very useful nutritive constituents, such as starch, sugar and fats, are likewise in higher proportion in the leaves than in the stems. But when you have 100 parts of crude fiber in the stem, an equal weight of leaves will contain but about 28 parts of fiber. This shows that on a chemical basis the cutting of the alfalfa at the stage when it is coming into bloom is good philosophy, because it is then richest in its most useful constituents, and the proportion of leaf is greatest to the stem—a fact never to be lost sight of, because of the high nutritive value of the leaf."

The use of the cap in curing alfalfa hay also was advised by Professor Hart. "This point," he urged, "rests upon a chemical basis. When you grow sugar beets and harvest them and take them to the factory, they are ground, placed in water, macerated, and the sugar dissolved out. The sugar has simply been taken into solution by the water. This is also true of other plant tissues. There is not a plant grown that does not suffer some deterioration by water-soaking. The more easily soluble, and, often, consequently, the most useful materials dissolve in the water and run away, and the more water the greater the proportion that dissolves out. So in making alfalfa hay, it should always be urged that, after all the difficulty of getting the crop to the stage of cutting, the greatest care should be exercised in proper curing. It is a waste of time and money not to do this. Below are some figures that actually show what will happen to alfalfa under the action of rain.

	Hay not damaged.	Hay damaged.
Ash	12.2%	12.7%
Crude Fiber	26.5%	38.8%
Ether Extract	3.9%	3.8%
Nitrogen Free Extract	38.7%	33.6%
Protein	18.7%	11.0%

"This table shows how the hay was damaged and the losses it sustained. It shows that the hay that was damaged has practically lost in such things as the sugar and starch; the things that easily pass into solution, and that the protein content has been very materially reduced by the exposure. Under the best conditions of handling your crop, you will probably lose one-fifth of its weight by loss of leaves, so that if you have a five-ton crop, you will probably lose one ton, which is left on the acre of soil. Care then in its mechanical handling should be given proper consideration."

ENRICHING THE SOIL.

The question of benefit to the soil in adding nitrogen and in bringing other plant foods from the deeper soil nearer to the surface also was discussed. In this regard the Professor said:

"I have not any data at hand to show exactly what alfalfa will do in adding nitrogen to your soil, but I have some data on clover, a plant belonging to the same family as alfalfa, which will do. Remember this principle, farmers, a plant grows because it gets its food from the soil, and the food materials that are most liable to be lacking in our ordinary soils are nitrogen, phosphoric acid and potash. This class of plants, to which the alfalfa belongs, has the power of taking its nitrogen from the air, and, consequently, builds itself without drawing upon the source of nitrogen in the soil. As a matter of fact, it leaves through its stubble and roots an increased quantity of nitrogen in the soil.

"Here is a table showing what a member of the legume family, one of the clovers, did for a soil at a Canadian Experiment Station:

	Lbs. per Acre.
Before experiment	533
After two years	708
After four years	742
After five years	841
Increase in five years	308

"The soil content at the beginning of the experiment contained 533 pounds of nitrogen per acre. After growing this crop for five years, and then subjecting the soil to another analysis, it was found that it had actually increased the content of the nitrogen by some 300 pounds per acre. In this same class, farmers, lies alfalfa, with its power of enriching the soil by adding nitrogen.

"Another point is that by its long root system it feeds deeply and secures its food from the lower soil areas. Consequently, when the leaves and debris from this plant accumulate on the surface of the soil, you are really accumulating material that has been brought from lower depths. The debris contains a certain amount of potash, phosphoric acid and nitrogen, which act in a measure as a top dressing. Consequently, when you break up an alfalfa sod and plant it to wheat, oats, potatoes, or corn, you generally have increased growth, due in part to having increased the upper layers of a soil with the plant food elements brought from the lower depths.

"By this accumulation near the surface, such substances as potash and phosphoric acid are brought from the deeper layers and enrich the upper layers of the soil with those plant food elements necessary for the crops that follow. But I do not want you to believe that alfalfa, or any legume, is a panacea for the restoration of all soil fertility. Alfalfa obtains part of its nutrition from the soil, while a part of it does come from the vast sources of nitrogen in the atmosphere about us. By growing legumes, there is no question but what we can save ourselves the expensive bills incurred by the purchase of high-grade, nitrogenous fertilizers. But the source of potash and phosphoric acid in this plant, as well as lime and other necessary elements for the plant's growth, has been the soil.

Following are the important points I wish to emphasize:

"1.—Alfalfa produces large amounts of protein and saves expense bills for concentrated feeding materials.

"2.—It is richest in useful nutrients at its earliest stage of growth, when it is just coming into bloom.

"3.—Its proportion of leaves to stems is also greater at that time, and, consequently, enhances its feeding value.

"4.—Rain dissolves out the useful nutrients.

"5.—It adds fertility to the soil, fifteen to twenty dollars' worth per year per acre in nitrogen, and brings potash and phosphoric acid nearer the surface.

"6.—It removes phosphoric acid, potash, and other essential plant elements from the soil, and for maintaining permanent fertility in the soil these must either be returned in the well-preserved manure, or supplied by the purchase of commercial fertilizers."

NOXIOUS WEEDS ON THE QUEBEC HIGHWAYS.

Editor "The Farmer's Advocate":

I would like to bring to your attention an important matter relating to our parish, in regard to our public highway, as matters exist at present. Each year the weeds are allowed to flourish as they will, and no one seems to make any effort to abate this nuisance. I and one of my neighbors made an offer to our local tollkeeper to clean up the roadway of all weeds, which meant 1½ miles in length, opposite our respective farms, but we were both told the contract had been let to another party, who had undertaken the whole road, but, as a matter of fact, the road was not touched, and the weeds were left to flourish as they would, and they are very bad, principally blue chicory and thistles. Is there not an act regarding the cutting of all weeds on public highways, as well as railroads? It is high time something was done in this matter, and I would like your advice on the matter, as I feel it is an injustice upon the farming community, and a disgrace to the parish in which we live. What is the use of keeping salaried men in Government service to tell us how to abate the weed nuisance if they are allowed to flourish on our highways and poison the whole neighborhood? WM. LENEY.

Wright Co., Que.

Ans.—I have not to hand English translation of the law of the Province of Quebec respecting the suppression of noxious weeds on municipal roads. The French text of the Provincial law directs in effect that the weeds, such as daisies, thistles, wild lettuce, chicory, and others, which are recognized as noxious, and which grow on municipal roads, must be cut and destroyed between June 20th and July 10th, each year, by those who have charge of taking care of the road.

The ways and means of building and caring for public roads in the Province of Quebec vary considerably in the different districts and municipalities, considerable latitude having been given by the Province to the municipalities in respect to methods that may be adopted by them. Where the road is cared for by persons under contract from the municipality, it would seem to be the duty of the municipal governing body to provide in the contract for the destruction of the noxious weeds as directed in the Provincial Act, and to see to it that the contract in that respect has been carried into effect.

Municipal enforcement of this Provincial law respecting the destruction of noxious weeds on public

roads would, in some districts of the Province of Quebec, as well as in other Provinces in Canada, seem to be the exception rather than the rule, and, in general, so long as the farming population consent to having their own affairs about noxious weeds badly governed, will noxious weeds continue to flourish on roadsides, in waste places, and in the fields of their careless neighbors.

GEO. H. CLARK,
Seed Commissioner.
Ottawa.

STORING SEED CORN.

Seed corn should be stored in a dry place, and in such a way as to allow of free circulation of air between the ears. A chamber containing any considerable quantity should be ventilated. Until fairly dry the corn should not be exposed to hard frost, and it is safer not to undertake to dry it out rapidly by artificial heat. A good way to store a small quantity is to tie the husks together and throw the ears in pairs over a fence-wire or wire clothes-line, suspended between two posts or from joists. This will, ordinarily, afford pretty good protection from rats and mice, unless the corn hangs close to the joists overhead, in which case the rodents might drop down on it and do more or less damage.

THE DAIRY.

SILAGE, ROOTS, AND CLOVER HAY.

Editor "The Farmer's Advocate":

In reply to your questions with regard to system of winter-feeding cattle, in the first place, I do not depend on buying a lot of feed. There are times when it may be necessary, but a farmer who grows all his feed does not feel it in the same way if selling prices go down. However, I would rather buy grain than sell it, as we calculate to feed everything we grow. Of course our farms in Elma Township are run very largely for dairying, though we have been in the habit of raising quite a lot of young stock, and we feed a certain number of steers. We raise the steers, and sell them when they are about two and one-half years old. We aim to sell them about May, and they should weigh about ten hundred pounds. Of course, to raise these we have been crossing our dairy cows with Shorthorn bulls, and the feeling in this neighborhood is to go entirely into the milking breed of cattle. Before leaving this part of the subject, I might tell you how we raise the calves. We always raise some of them fed with new milk, for, say, three weeks, and then fed on skim milk, with a little oats, clover hay, etc., but we have been in the habit for some time of keeping several cows for nursing calves, and I tell you it is the right way to raise calves. I know it is claimed to be expensive, but we are in the habit of raising three and four calves on each cow—that is, I mean, to raise good large fellows, able to shift on the grass for themselves.

We have grown about seven or eight acres of Flint corn for ensilage on each hundred acres. We usually grow about four acres of Yellow Intermediate mangels. We intend to feed about an acre of mangels and one acre of corn in fall. We grow as much good clover hay as possible, and do not depend very much on feeding straw. Of course, when the cows are dry in winter we might feed some, but we aim to have plenty of straw to bed everything well. Cows milking in winter require to be kept well bedded. We are also in the habit of raising quite a lot of hogs. Our rule is: Keep two brood sows on each hundred acres—that means four litters each year, averaging from eight to nine each litter. They get all the whey, alfalfa (cut) and grain they want in summer, and skim milk, roots and grain in winter.

With regard to your question, what combination of roughage do you find best to economize the meal ration, I do not know anything better than plenty of roots, ensilage and clover hay.

There is another matter in connection with our system of feeding. If one grows, say, eleven or twelve acres of roots and corn, cultivating and manuring them well, and then seeding down the next spring, principally to clover—handling the farm well otherwise—he will find he can grow all the feed he needs, and his land will get richer.

FARMER.
Perth Co., Ont.

DISTRICT DAIRY MEETINGS IN EASTERN ONTARIO.

R. G. Murphy, Secretary of the Eastern Ontario Dairymen's Association, sends us a list of places and dates of a series of special dairy meetings, which are to be held under the auspices of the above association:

- Peterboro', November 4th; Lindsay, November 5th;
- Campbellford, November 6th; Perth, November 17th;
- Kemptville, November 18th; Vars, November 19th;
- Vankleek Hill, November 20th; Lancaster, November 23rd;
- North Williamsburg, November 24th; Avonmore, November 25th;
- North Gower, November 26th; Cobden, November 27th;
- Madoc, December 1st; Belleville, December 2nd;
- Napanee, December 3rd; Gananoque, December 4th;
- Kingston, December 5th.

RUN THE MACHINE AT FULL CAPACITY.

Editor "The Farmer's Advocate":

We will winter our Ayrshire cattle with clover hay, corn silage, turnips, oat straw, bran and oil cake. There may be few minor changes; for instance, we may give crushed oats to some of our cows which are in the Record of Performance test, but, as a general rule, we will give about 30 pounds of silage, 10 pounds of hay, 20 pounds of turnips, 10 pounds chopped oat straw, for roughage, and about one pound of mixture, of $\frac{1}{2}$ bran and $\frac{1}{2}$ oil cake, per four pounds of milk.

The answer to your question, "At present prices, what do you consider the most profitable grains or meals to purchase for the purpose of supplementing farm-grown fodder and grains," depends upon the kind of roughage one has at hand. The man who has silage from well-matured corn, and a great proportion of timothy in his hay, no doubt should look for a meal rich in protein, as he has too large a percentage of fat and carbohydrates in his roughage; and at present prices, I believe oil meal can furnish a pound of digestible protein much cheaper than bran, oats, or the other grains.

The man who has alfalfa hay or clover is not so far ahead of his less fortunate neighbors as in years past, for corn, usually the cheapest source of carbohydrates and fat, is very high this year.

If prices of meals and grains continues to soar as high as they have for a couple of years past, the only salvation for the dairyman is to cull out the drones, and keep only his best milkers. Most farmers are afraid to pay \$100.00 for a good dairy bull, out of well-known ancestry, but will keep on paying large grain bills year in and year out to feed poor stock sired by a poor bull out of poor cows. This will have to change, else most farmers will soon be out of business.

WINTER FEEDING OF DAIRY COWS.

All feed, in the line of grain and mill feed, is likely to be very high again this winter, but for the matter of that, it is likely to be high for all time to come, because consumption has overtaken production, and the coarser grains, such as corn, oats and barley, are being used for food for human beings, especially in the way of breakfast foods. Formerly this was confined pretty much to oats, but now barley and corn are used extensively for human food, and feeders are offered great quantities of mill by-products. While some of it, no doubt, is all right, most of it is what we might call adulterated. The refuse of oat mills, such as oat hulls, are ground up fine and used as a filler. It might be a filler to fill the bags for the miller, but it certainly would not be very nourishing for the stock, nor is there much nutriment for making milk, so that anybody who wishes to supply his stock with a sufficiency of feed, must look elsewhere for a feed if he wants an economical ration.

If an animal is not worth feeding well, it is not worth feeding at all, but to feed an animal well it does not necessarily mean one must feed the most expensive feeds; in fact, the most suitable foods are not expensive when grown on the farm, such as corn silage and mangels.

"In time of peace prepare for war," is an old proverb, and the time to prepare for winter feeding of stock was away last spring. It may serve to emphasize this more fully now that the feed should be at hand.

To feed economically the feeder should have silage and mangels for dairy cows. This, with well-saved straw and a little hay, will make the basis of a very economical and suitable ration, and enormous quantities of silage and roots can be grown to the acre, so that a man thereby can increase the production of his farm manifold. True, harvesting these crops is a little hard on the back, and they mean work, but the reason they mean so much work is because they furnish so much food—suitable food, too.

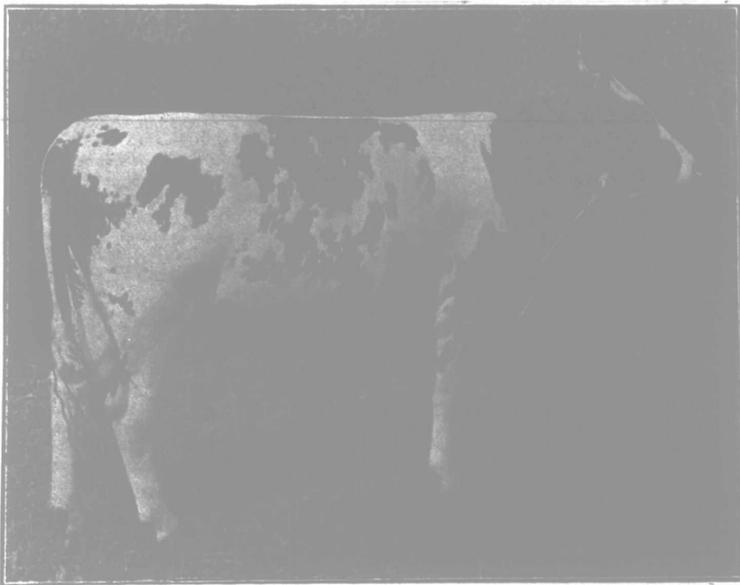
Whilst these feeds should be the main reliance in feeding stock, some grain or bran should be fed also. At this time possibly bran and oil cake in small quantities are the cheapest foods. Even with silage, roots, hay and straw, the quantity of grain that should be fed will depend upon the production of the cow and her period in lactation.

Although feed is high, milk and its products are also high. Butter is likely to be close to the 30c. per lb. mark, and milk is in great demand from the cities and condensaries during the winter, netting the producer \$1.50 per cwt., so that it will pay very well to feed large-producing cows considerable grain at the

price now obtainable. For instance, if we have good cows fresh, giving 60, 70 and 80 lbs. milk per day, which means producing daily from 90c., \$1.05 to \$1.10 per day, one certainly cannot but realize a profit, no matter how dear the feed. In fact, with the cow producing so heavily, it will be necessary to feed her more grain and not such a bulky ration. Cows have large stomachs, and a fairly bulky ration is suitable to them, but when we come to milch cows, giving their 60, 70 or 80 lbs. milk daily, we will at once realize that they should have their feed somewhat more concentrated; that is, if we are to give them more food than those of less production, we must have it in less bulk, because it would be impossible for them to contain enough rough feed to keep up their heavy production, and if they do not get enough feed in one way or another, of course they cannot keep up their production either.

It certainly is a queer state of affairs that farmers should be grumbling about the high price of grain. Nothing shows more clearly what a change has come over the operations of a farm than this. Formerly, about all the grain was sold off the farm, and the money was realized that way, but now things are quite different. In fact, many farmers do not sell off any grain, but make their money out of live-stock products. This is better for the farm, as it sells off much less fertility. However, that system of farming has changed. Farmers need to do considerable thinking on how to grow the crop that will furnish the most economical feed. This end is nearly always to be obtained by growing those crops that will give the largest amount of fodder per acre, and for this reason silage and mangels should be grown largely on the dairy farm.

OXFORD CO., ONT. GEO. RICE.



Lessnessock Durward Lely (imp.) —24758—

Ayrshire bull, two years old. Second at Toronto, first and champion at London, 1908. Imported and owned by R. Hunter & Sons, Maxville, Ont.

To conclude, I may say that once the stock is closely culled, the cows should be well fed all the year round. If you have a good machine, shove through it all the raw material that it can economically take care of. Don't let it run half the year doing only half the work it can handle, for there are certain fixed charges—for buildings, general expenses, etc.—which are always the same, if each of our cows produces only 3,000 lbs. of milk a year instead of 6,000. Fewer cows, and better ones, is a good thing to remember always, but especially when feeds of all kinds are high-priced.

GUS. LANGELIER.
Quebec Co., Ont.

NO SICKLY SMELL ABOUT WHEY TANKS.

Editor "The Farmer's Advocate":

I am of opinion that the pasteurizing of whey is a step in the right direction—not that I think its feeding value is much improved, except that it can be fed to calves, but it certainly is of great advantage to the cans. They don't take one-half the time to wash that they did before the whey was pasteurized; all the grease seems to leave the can when the whey is emptied out, so no doubt the cans will last longer, but would not like to say for certain, as it will require more time to prove whether it is of any benefit to the cans, as they only commenced pasteurizing at our factory (Burgessville) last April. It also improves the flavor of the whey; you don't notice that sickly, sour smell around the whey tanks as used to be the case before the whey was heated.

I think the scheme is all right, if the price for heating it doesn't go too high. I don't know exactly what it costs, but it is not very much.

JOHN E. THOMPSON.
Oxford Co., Ont.

WINTER FEEDING AS ECONOMICAL AS PASTEURIZATION.

Editor "The Farmer's Advocate":

With the present prices of grain and the rather light crop of roots, combined with the generally thin condition of cattle, owing to poor pastures, there does not appear to be a very bright prospect ahead for farmers producing beef the coming winter.

In this section of the country the crops of hay, straw and roots are the lightest we have had in many years, but the grain has yielded very well. The one big fodder crop we have is corn. Farmers who have silos full of good silage feel themselves pretty safe, and are envied by some of their less fortunate neighbors.

For some years back we have been gradually getting rid of our beef breed of cattle, and going more into dairying, with the special dairy cow (Jerseys), as we found so much more money in them. We raise all our own cows, and our aim has not only been to improve our herd, but to reduce the cost of producing butter-fat. Along this line I feel that we have met with a fair measure of success. In the first place, I think the farmer should raise everything on his own farm that he feeds, if possible. Our dependence for cheap production has been placed upon corn silage, roots, alfalfa and red clover hay without the addition of any meal. For two years past we have fed no meal or other concentrates, except for about ten days or two weeks last spring, when our alfalfa hay ran out, then we substituted ground oats, which did not increase the yield of milk. However, I would not say but that the feeding of some grain or oil meal with the alfalfa would be a good thing, though it would add greatly to the cost of production. I think I am safe in making the statement that our feeding last winter in the stable cost no more to produce a pound of butter-fat than it did in the summer, if we take the average of, say, five and one-half months pasture, with supplementary feed added, and that in each case the cows are fresh and of equal productiveness.

We have found the same ration that we feed our cows for milk to be equally good for beef production. Advice as to what a farmer should purchase in the way of meal or other concentrates will depend upon what he has at home for roughage; if it is corn silage or dry cornstalks, I would advise purchasing those feeds that contain a high percentage of protein, such as oil or cottonseed meal, gluten meal or peas. On the other hand, if the roughage consisted largely of clover hay, such grain as barley or corn would probably give the most economical returns. In any case a succulent food, such as silage or roots, should form part of the ration. HY. GLENDINNING.
Ontario Co., Ont.

PIGS DID WELL ON PASTEURIZED WHEY.

Editor "The Farmer's Advocate":

Our experience as patrons of the Burgessville factory in feeding pasteurized whey since April 1st has been very satisfactory; the cost is repaid by the greater ease in washing the cans. They are easier to wash than if they came home empty, there being no ill-smelling grease. I believe there is considerably less acid in the whey than formerly. A great many do not know what it is costing. For instance, if a patron is sending 366 lbs. of milk per day, the heating of his whey would cost less than a cent per day. Our pigs never did so well on the whey and so small an amount of grain. We bought thirteen, weighing 135 lbs. each; fed them one bushel of chop per day, composed of wheat, oats and barley, in the whey for two weeks, when they had made a gain of 22 lbs. each. They were running in the orchard (not in clover), but a bit of grass here and there, where it had not been rooted up by the lot which had been running there previously.

We gave the calves all they wished. They did well on it, with no bad results.

The whey comes home warm and sweet, and in my opinion is worth much more. Our maker says he has not been troubled with the goosy flavor as much this season. The charge for pasteurizing the whey at our factory is 45c. per ton of cheese. We consider pasteurization of whey a step in advance, and wish it continued. W. C. T.
Oxford Co., Ont.

[Note.—This is gratifying testimony from an evidently wide-awake and observant patron. Apropos of the remark re cost of heating the whey, it may be noted that the charge at this factory, 45 cents a ton, is exceptionally low, and we are told the maker can scarcely afford to do it for this price. As a general thing, 50 cents per ton of cheese is about as little as a maker can afford to heat the whey for. At that, conditions must be favorable, the whey tank must be conveniently situated, the boiler must be of ample capacity (as it should be anyway), and the exhaust steam must be utilized.—Editor.]

RESULTS SATISFACTORY IN EVERY WAY.

Editor "The Farmer's Advocate":

The Blanshard cheese factory has this year adopted the practice of pasteurizing the whey, with most satisfactory results. The whey is found to be sweeter and better than formerly, and the cans sweeter and easier to wash, with much less grease adhering to them. They also corrode less, and will last longer. They have not the whey odor, and I think the quality of the milk and cheese is improved. The cheesemaker

was given an increase of 4c. per lb. at last annual meeting, which increase was to cover the cost of heating the whey. It pays to have the whey pasteurized, and I desire to have the practice continued.
Perth Co., Ont. GEO. B. WEBSTER, Sec'y.

GARDEN & ORCHARD.

A STRICTLY CO-OPERATIVE ASSOCIATION.

In the fruit districts of Ontario efforts are being made each year to ascertain what method of selling the products of the orchard and the vineyard will result in greatest profit to the producer. The Grimsby Co-operative Fruit-growers' Association has had remarkable success during the season of 1908. "This association," said Linus Woolverton, a prominent member of the organization, a few days ago, "differs from others in that it handles no fruit other than that grown by the eight members of which it is composed, unless extra quantities are needed to fill a car. We have a central packing-house, and a manager and shipper, whose duty it is to arrange sales and see that the grades are strictly kept. The head packer is an expert. All sorts of fruit are handled, and everything is guaranteed to be true to name.

"Every week quotations are sent to about five hundred merchants in different parts of the Province. A ready sale has been found for practically all the fruit grown by these eight members—a fruit-producing area of about 500 acres. Other fruit-growers have expressed a desire to become members of our association, but it is impossible to increase the membership until we have greater accommodation for packing. The packing-house is so arranged that each grower has a separate stall in which his fruit is delivered. A book is provided, wherein the receipts are entered in duplicate. These are packed to stock under grades, and the sales show the gross returns. Ten per cent. of the receipts is reserved to cover expenses, and at the end of the season the accounts straightened."

"Bartlett pears," continued Mr. Woolverton, "have been a tremendous crop, though slightly undersized. Home demand has not been brisk, but excellent results were derived by exporting to Great Britain. Arrangements were made to ship in lots of one hundred or two hundred cases by express, on Tuesdays and Thursdays, to be loaded in Montreal on Wednesdays and Fridays. The returns were highly satisfactory, the profit being double that from home sales. Naturally, the highest profit came from number one stock, as the charges are too high to ship low-grade fruit so far.

"These shipments of pears in small lots were made possible by the fact that charges on space on the boats were guaranteed by the Government. If this boon were extended to refrigerator cars to make regular connections with ocean steamers it would be greatly appreciated by fruit-growers. Many have small lots, but fruitmen are slow to start for fear the car would not be full. If the charges were guaranteed there would be few instances in which available space would not be taken, provided growers knew a car would be ready on a certain date, or on a certain day each week."

LOW HEADING OF PEACH TREES.

New methods constantly are being adopted in the cultivation and handling of orchards in the Niagara Peninsula by the more progressive growers. Most noticeable among recent changes is the practice of low heading of peach trees, particularly in young orchards. Some have even gone so far as to induce a lower and spreading growth of the older plantations, by cutting off the entire tops in two seasons, and training the new growth.

Great progress in this regard already has been made by J. W. Smith, a prominent orchardist of Winona, and one of the most successful peach-growers in Ontario. "Low-headed trees," said Mr. Smith to a member of "The Farmer's Advocate" staff recently, "should be started in the nursery. The head should be formed about eighteen inches from the ground. This is done by pinching off the top of the young tree at the desired height to induce branching. When these branches have grown they can be cut back, leaving three or four of those that are well placed, and cutting them to about four inches in length. The main point is to keep the growth so trimmed that the tree will be low and spreading.

"The chief reason for adopting the low-headed system is the greater ease with which the fruit can be harvested. Pickers can handle three baskets from the ground to one from a ladder. It is easily possible to train the limbs so that no ladder will be required. Another benefit is that the sunlight is allowed freer access to the lower branches. With high heads some limbs are strong while others are weak, and the lower and inside branches shed their leaves. Low heads means a ripening of the lower limbs, strong foliage, and even ripening of the fruit.

"The question asked by all is 'How is it possible to cultivate an orchard planted with such trees?' New machinery helps to solve the problem. Disk harrows and other implements are made to reach far under trees and bushes. Were it not for the necessity of using such machinery the heads would not need to be even eighteen inches high. If, however, they were made lower the limbs would be backed by the disks or frames. But very little growth of grass or weeds is found in

an established orchard of low-headed trees, surface growth being greatly diminished."

Discussing the same question, Linus Woolverton, of Grimsby, said: "In days gone by peach-growers allowed the branches to run out long and high, beyond the reach of the average ladder. Many now cut back severely—some almost to the crotches. For a time the trees appear to be ruined. Perhaps they are damaged for a time, but where large trees had developed a straggling growth, by cutting off half the large limbs one year and the balance the following season, the trees are renewed, and give better results than before the trimming. Early spring, before growth begins, is the most desirable time for this cutting, but it can be done late in autumn. The new wood bears well the second year, and the vigorous growth means fruit of higher quality."

APIARY.

NATIONAL BEEKEEPERS' MEETING.

A very full programme of the National Beekeepers' Association was carried out October 13th to 15th, at Detroit, Mich. A session to which the citizens of Detroit were invited, and to which there was a goodly turnout, was the first evening. At this meeting E. R. Root, Medina, Ohio, gave a demonstration of the handling of bees. Mr. Root removed his coat, vest, collar and necktie; put his trouser-leg bottoms inside of his socks to prevent the bees from mistaking them for a hollow log, and then entered a wire cage with smoker. The cage contained a colony of bees. These he smoked in the usual manner, and then proceeded to manipulate the hive. He not only removed from the hive the combs with adhering bees, but shook the bees from the combs into a pan, and then scooped the bees up in his hands, after having shaken the bees about in the pan. Mr. Root also shook bees upon his head, surprising his audience, many of whom, no doubt, thought that the main object of a bee in life was to find someone to sting. Mr. Root explained that he was careful not to pinch a bee. Mr. Root also gave a talk on the life history of the bee, and made a very interesting session for his audience.

BEEKEEPING IN HAWAII.

Prof. E. F. Phillips, of the Bureau of Apiculture, Washington, D. C., gave a lecture, with stereopticon views, on "Beekeeping in Hawaii." Prof. Phillips had been sent there by the Department of Agriculture, Washington. He found that colonies yielded a large amount of honey per colony, and that a large number of colonies could be kept in one apiary. The sweet the bees gathered was, however, mostly an excretion from an insect which worked upon the sugar-cane, the "leaf hopper." The opinion of some was that the bees worked on the troughs of molasses set out for cattle. The "honey" was of about the same taste as molasses, but he never saw a bee working at the troughs, and, as a result of his investigations, he was quite satisfied that the surplus the bees gathered was from the source already indicated.

The morning session opened with an address by President Geo. E. Hilton, Fremont, Mich. President Hilton spoke of the advancement the industry had made, and gave Canadians, in particular, credit for the assistance they had been to the industry, and the help they had been in conventions.

BACTERIA OF BEE DISEASES.

This was followed by an address by Dr. G. F. White, of the Bureau of Apiculture, Washington, "The Bacteria of Bee Diseases" being his subject. Dr. White dealt with it in a masterly manner, stating that disease was a state of not rest, an abnormal condition. The predisposing causes varied—it might be age, sex, race, heredity or pre-existing diseases. Under exciting causes we found food and micro-organisms. The diseases due to bacteria were to bees the most dangerous, among them being American and European foul brood. The American disease was due to *Bacillus larvæ*.

EUROPEAN FOUL BROOD.

The cause of European foul brood had not yet been found, and it should be treated the same as American foul brood. The disease attacked the larvæ at an earlier stage than with the American.

In the discussion which followed, J. L. Byers, one of the inspectors for Ontario, stated that foul brood of the European kind was now in one section of Ontario—it was very virulent, and was now in an area less than ten miles square. Dr. Phillips stated that this European foul brood was first noticed in New York State in 1897; it had now spread over sixteen States of the Union, and he felt that radical steps should be taken for its extermination. Conditions were developing so that only those carefully looking after their bees would be able to keep them, and that there should be greater effort in the direction of wax production.

R. F. Holtermann, Brantford, Ont., stated that from what he had heard of European foul brood in New York State, and also in the small area in Ontario, the Department of Agriculture for Ontario, and the Department of Agriculture for the Dominion, should exterminate every colony in that section, to try to prevent further spread of the disease, and that the Government or Governments should compensate the owners of the colonies destroyed.

W. D. Wright, Alamont, N.Y., one of the State inspectors, described the disease foul brood as follows:

Scattering capped cells, a large number in the moisture, and are never capped. In health the uncapped larvae are pearly white and glistening, in disease they are a dull color—some are spotted, yellow, becoming darker as the disease advances, until they become nearly black. Most of the dead brood is uncapped, the disease attacking the larvae at an earlier stage than is the case with American foul brood.

Quite a discussion took place as to the advisability of keeping combs not brooded in, but which had been on diseased colonies.

John Newton, another inspector, said he thought there had been too much leniency; it was better to render such combs.

N. E. France, General Manager of the National, and also Bee Inspector for Wisconsin, said: We try to save too much; these combs are only worth the wax they contain; render them.

Those posted in public and private discussion appeared to think that disease among bees was becoming more prevalent, and that it was going to have the same effect in beekeeping that the San Jose scale was expected to have among fruitmen—wipe out those who did not watch continually, which means practically all but those making beekeeping a business proposition.

R. L. Taylor, Mich. State Inspector, said: In this "Eternal vigilance is the price of freedom from the disease." Mr. Taylor, in dealing with the subject of "Getting rid of foul brood with the least financial loss," stated:

1st.—Destroy the bees in colonies badly affected; in these the bees are old anyway, and valueless.

2nd.—If colonies are good, shake them on starters; if many colonies are diseased, do not shake all at one time, and put the brood from those shaken on top of colonies not shaken to hatch. After about three weeks shake these last colonies, and render all old comb, saving the wax, and being very careful that the bees do not rob on any of the refuse left after rendering.

It was pointed out that the general, and, some thought, better practice was to shake the bees after two days a second time, to make sure the new colony did not go on with any germs transmitted from the other colony.

THE SIZE OF HIVE.

Almost the entire afternoon of the second day was taken up in discussing the size of hive. S. D. Chapman, Mancelona, Mich., championed the cause of the eight-frame hive. R. F. Holtermann, Brantford, that of a larger, particularly the 12-frame hive. After half an hour had been given to each speaker, the public took a part.

Mr. W. K. Morrison, who has travelled almost over the entire apicultural world, stated that fifteen years ago such a discussion would have been impossible, then it was all 8-frame; now public opinion was vastly in the majority for 10-frame hives, and he would not be at all surprised if soon it would go so far as a 12-frame Langstroth hive.

Mr. Chapman even wanted to give a portion of the first super for brood combs, and it developed that the officers of the association could not get anyone to champion straight an 8-frame Langstroth brood chamber.

Dr. G. Bohrer, Lyons, Kansas, stated he had watched a queen through an observatory hive, and found she could lay six eggs in a minute.

Mr. Morrison stated that it was now beyond doubt, in fact had been proven, that a queen could lay 6,000 eggs in a day.

The President had to declare the discussion closed before all desiring to speak had been heard, showing the intense interest in the subject by the apicultural world.

Mr. Holtermann declared that the small hive, with the limited area for brood rearing and storing honey, had been the destruction of countless colonies of bees which had starved during the winter.

A nice display of comb and extracted honey and apicultural supplies was made, which was the center of interest between sessions.

The convention, which is international, embracing Canada, was very largely attended; there were in the neighborhood of forty-five Canadians in attendance. Mr. Holtermann, who has been on the programme for four years running, invited the association to meet in Toronto next year. Invitations were also received from Buffalo, Minneapolis, and St. Louis.

POULTRY.

POULTRY - HOUSE VENTILATION.

Poultry experts and enthusiasts frequently have sound advice to give regarding the ideal poultry house and ideal ventilation systems. Instructions are given that are interesting and valuable from the standpoint of the man who purposes building a new house. The average farmer, however, who considers poultry-raising a necessary adjunct to other branches of farming, and who already has a house or pen which he considers sufficiently up-to-date in most respects, wants to know how best he can approach the ideal system of ventilation.

All who know anything about fowls realize the necessity of fresh, pure air winter and summer, night and day. Some systems may have advantages over others, but the small poultryman wants a simple and comparatively inexpensive one.

Some thoughtlessly consider that a door or a window or two thrown wide open meets the requirement. They forget that poultry are extremely sensitive to drafts. The main object, then, should be to avoid drafts in giving the desirable supply of fresh air. Whether this condition is given by cotton coverings over openings, or by a slatted ceiling with a straw covering, or by air chutes with openings at the ceiling and also at the floor, probably makes little difference. The best must be made under existing conditions.

Perhaps the slatted ceiling, with straw in the loft, and an opening out of the latter on the south side, with a couple of smaller openings below, in the poultry apartment, is one of the simplest and most efficient. The straw allows slow circulation of air, and it also absorbs moisture. Some poultrymen who have the straw loft, keep a large door open, except in severe cold or windy weather. Others favor a combination of straw loft and curtain front. But there are good poultry houses in which the ceiling already is too low; so that the suggestion to have straw in the loft would be out of the question. In very few instances, however, would it be impossible to put in boxed ventilator chutes—one in each end of the house. By having these protrude two or three feet above the roof, and reach almost to the floor of the house, a system can be devised to provide a liberal supply of fresh air throughout the year, and avoid excessively low temperatures in the winter months. Openings at the ceiling and near the base of each chute can be equipped with slide-boards, to be opened or closed, depending on weather conditions. At times it might be advisable to have them partly closed, while, again, the bottom ones may be closed, and only the others left open. In severe weather, all can be closed to advantage.

Provided, again, it is not convenient to put in ventilators, cotton-covered openings of a size dependent on the size of the building, and perhaps on its location, are suitable. The cotton should be on the south, south-east or east side, and the space should be quite large, as the cotton becomes covered with dust, and permits much less exchange of air than one would anticipate. The location, of course, as well as the construction of the building, would have to be taken into consideration in any ventilation system.

Something can be done before winter sets in to remedy defects that may exist in the poultry house. Adopt some means whereby a diffusion of air can be had without perceptible drafts. Foul air is injurious to poultry. A healthy hen is less comfortable at a temperature of 80 or 85 degrees than she is when the thermometer stands 12 or 15 degrees below freezing. Let in the fresh air and keep the pens clean, and a vast difference will be noted in the annual returns from the poultry.

BLACKHEAD IN TURKEYS.

Those who raise turkeys occasionally experience a severe setback because of the ravages of the disease known as blackhead. Attempts made by C. Curtice, of the Rhode Island Experiment Station, to learn the true nature of the disease, its means of transmission, and measures that may result in its prevention or control, led him to conclude that the seat of the disease is in the liver, and in the cecum or blind intestine. In the former it is recognizable by discolorations often more or less circular, or even quite irregular in form, and often presenting a yellowish appearance. In the cecum the disease is accompanied by great enlargement and the formation of large sores in the cecal wall. Dr. Curtice's report says that, when the disease in the cecum is slight, it is doubtful if the affected animals have diarrhea, which is more or less present in other cases. In many of the older poult the droppings will be liquid, and stained orange yellow; this is the most characteristic symptom of all. Sometimes there are blackened blood-clots in the droppings, indicating slight hemorrhages. The majority of young poults die after a day or two of droopiness. Adults may droop longer and pass into chronic stages of the disease. Refusal to eat, and standing apart, constitute late symptoms.

The experiments indicate that the disease is not transmitted through the egg, and afford strong evidence that, while ordinary fowls (hens, guineas, pheasants, etc.) rarely die of the disease, they carry and distribute the disease. It was shown that, by removing the turkey eggs three or four days before hatching, wiping them with a cloth moistened with 90 per cent. alcohol, finishing the incubation in a machine, keeping the poults for a few weeks on a disinfected board floor, and placing them in a location remote from ordinary fowl, the losses by blackhead disease prior to reaching maturity may be reduced from a minimum of 80 per cent. to 15 or 20 per cent.

This shows that the turkeys must be kept away from ordinary fowl as much as possible, and, in view of the tendency of partially wild turkeys to roam and remain at a considerable distance from the farm buildings, it is possible that the supposed benefit from introducing wild blood is thus

partially explained, and that it is not wholly due to greater immunity of the wild birds.

It is popularly believed that turkeys cannot be raised successfully in confinement; one reason may be that they are often confined with ordinary fowl, which give them the disease organisms. More must be known about the means by which this disease is transmitted before great progress in its practical control can be expected.

As the parasites seem to be easily killed by drying, dry, sandy soils would seem to be preferable for turkey-rearing, and it is clear that turkeys should be reared away from the house, and be kept from all fields where ordinary fowl are likely to forage.

Older turkeys apparently resist the disease better than very young, but "no breed of turkeys thus far tested is immune to the blackhead disease, for all of them, at all ages, so far as tried, have died of it."

The destructive character of this disease, and the ease with which it may be distributed, suggests that great care should be exercised not to carry turkeys from regions where the disease prevails into regions where it does not exist.

THE FARM BULLETIN.

PROFIT FROM MANAGEMENT.

Editor "The Farmer's Advocate":

In reading your paper each week, I find letters from farmers and their sons regarding operations and methods on the farm very interesting. I thought a few paragraphs regarding the management of our 200-acre farm, with proposed changes, might also be interesting.

For mixed farming, it is necessary to have the farm divided into fields and well fenced. I prefer fields of twenty acres, and as nearly square as possible. They are convenient for working. In plowing, two three-horse teams, and a plow team, for starting the lands, and finishing as fast as the two double plows would turn it, suit well. With the harrows, cultivators and disk harrows, it is as convenient to work it crosswise as lengthwise.

When haying operations begin, these fields are also very desirable, especially for using the hay-loader. On commencing to mow, we always cut a width of about 30 feet or more around the field, to give space for turning with the loader and wagon. Then we cut it in three equal sizes, which is all five men can handle in a day. This is three days' work on a twenty-acre field. We have two men in the barn and two loading. Boys drive the teams on hay loader and side-delivery rake, and also for the hay fork.

When harvesting rush is on, two men and their horses are kept busy, one on the reaper, and the other shocking. In this way, these fields are but a day's work with a seven-foot binder, and teams changing off. As there are generally nine horses kept on such a farm, the third man could be engaged plowing the hay and clover land, and thus prepare for summer-fallowing the same.

With the usual herd of 15 or 20 cows, and additional young cattle and flocks of sheep, and hogs, these fields are found none too big for pasture; and where there is a silo, such a field is also almost all used for roots and corn, while the remainder might be sown in some other kind of grain.

Where a spring creek of fair size flows near the buildings, it is easily possible to build a dam. If three or four horse-power could be derived from a water wheel, a dynamo could be driven, from which a motor of twenty horse-power could be installed for running the grain thresher, with band-cutter, self-feeder, dust-blower, chaff-blower and cutting-box. Should circumstances demand, the ensilage-cutter or chopping mill also could be operated. Arrangements, also, could be made to run the cream separator, washing machine, bone grinder and other machinery. It is also convenient for lighting purposes. Where water-power is not available, a small portable engine would answer the purpose, without great expense. Such outfits are labor-savers, if properly installed, and operated intelligently. It is possible to thresh the grain as fast as it is brought from the field, by simply throwing it on the self-feeder. One man could do the unloading, one can carry away the grain, and two are all that are necessary for loading in the field.

Farming is a paying occupation. Every year finds it more so, particularly on a farm that is well managed. Success can be achieved after a good public-school training, by carefully reading every issue of "The Farmer's Advocate." All that is necessary is for the young farmer to be wide-awake and take advantage of opportunities.

Waterloo Co., Ont.

ERVIN GROFF.

FAIR DATES FIXED.

- Nov. 28th to Dec. 10th.—International Live-stock Exposition, Chicago.
- Nov. 30th to Dec. 3rd.—Maritime Winter Fair, Amherst, N. S.
- Dec. 2nd to 10th.—National Dairy Show, Chicago.
- Dec. 7th to 11th.—Ontario Provincial Winter Fair, Guelph.
- Jan. 18th to 22nd.—Eastern Ontario Live-stock and Poultry Show, at Ottawa.

AGRICULTURAL BLUESTONE: A WARNING.

During the past few months, there has been sent to us for examination, under various names, several samples of a material (or materials) recently put on the market as a substitute for copper sulphate. Analysis has shown them to be a mixture of sulphate or iron (copperas) and sulphate of copper (bluestone). It is possible that all the samples have a common origin, as a by-product, but they differ somewhat in the proportions of their ingredients, pointing, probably, to a rough mixing of the two sulphates. The percentages of sulphate of iron range from 49 to 59, and of the sulphate of copper, from 41 to 51.

In one case, the price asked was more than double that of bluestone; in the other instances, the information furnished stated that the material could be obtained at a lower figure than bluestone. It is, perhaps, scarcely necessary to add, that copperas is so very much cheaper than bluestone, that the price of the mixture should not be more than half that of sulphate of copper.

Many of the claims made for this material, as a substitute for bluestone, in the treatment of wheat for the prevention of smut, and in the preparation of fungicides (Bordeaux Mixture, etc.) are so extravagant that no intelligent farmer will be misled thereby, but it may be well to remind your readers that sulphate of iron is much less effective for the purposes indicated than bluestone. Indeed, so much lower is the fungicidal action of the former that we doubt if such a mixture as that under consideration could be advantageously used instead of bluestone, under any conditions, either for the treatment of wheat, or in the orchard.

FRANK T. SHUTT,
Chemist, Dominion Exp. Farms.
Ottawa.

TRACK DRIVER BANQUETED.

On October 21st, the Road Drivers' Association of London, Ont., tendered a banquet to T. W. Entricken, of Tavistock, owner, and Dan McEwen, of London, driver of The Eel, the famous pacing stallion that has brought credit to Canada in the Grand-circuit races this season. The popular driver was presented with a diamond ring. The banquet was an informal affair, and was arranged by George McCormick, President of the Association, and Dr. Wood, the enthusiastic Secretary. Over one hundred horsemen were in attendance.

At Tavistock, also, on the evening of October 23rd, a magnificent demonstration of similar nature was made. Horse-loving Canadians, and particularly those of Tavistock and London, are proud of Messrs. Entricken and McEwen, and The Eel, with a record of 2.02½.

Hon. James S. Duff, new Minister of Agriculture for Ontario, has been re-elected by acclamation by his constituents in West Simcoe.

TRADE TOPICS.

PROGRESS IN SEVENTY YEARS.

Gradual advancement is the best evidence of good management. In supplying articles for market, superior quality is a very necessary complement to good management. In 1839, the Frost & Wood Company, Ltd., began the manufacture of farm implements in a small blacksmith shop in Smith's Falls, Ont., with the motto, "We will make the very best class of farm implements that can be made, by using good materials and expert workmanship, and will induce our customers to use that machinery by dealing with them in a straightforward manner."

Frost & Wood are still manufacturing implements on the ground occupied by the blacksmith shop in 1839. This year they have issued a unique, handsome and instructive catalogue in celebration of their seventieth anniversary, in which is traced the development of the business of this enterprising firm. In addition to this "Tale of Seventy Years," it contains descriptions of Canadian agricultural colleges and experiment stations, and valuable pointers on important methods and operations on the farm. Stress is laid on the importance of education in relation to profitable farming.

The pages are replete with high-class illustrations of agricultural scenes, and Frost & Wood machinery in operation, and ready for sale. Nothing has been left undone that will make this 1909 catalogue one that will be of interest to the farmer. Those who write to Smith's Falls, and mention "The Farmer's Advocate," will receive a copy by return mail.

OF VALUE TO HORSEMEN.—Horses that have been used steadily at work, either on the farm or road, frequently have some strains whereby lameness or enlargements have been caused. Gombault's Caustic Balsam applied as per directions, will be of great benefit; and

this is the time when it can be used very successfully. After it is applied it needs no care or attention, but does its work at a time when the horse is having a rest. To those who turn their horses out for the winter, this Caustic Balsam is worthy of special attention.

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.

Veterinary.

THINKS HORSE HAS FARCY.

After a couple of days' rest, one hind leg of aged horse swelled, and he went very lame. In about a week ulcers began to form, and are continuing to form, burst, and discharge matter, then form again, etc. This has been going on for about five weeks. I think it is farcy. G. H. H.

The first symptoms are those of lymphangitis or weed, but he would have recovered from that before this. The formation of ulcers that refuse to heal is suspicious of farcy. If you are correct in your diagnosis, the horse must be destroyed, as farcy is identical with glanders, although the symptoms are different. If this horse has not recovered before you see this, send for your veterinarian, and if there are any indications of farcy he will notify the Department of Agriculture, at Ottawa, and the nearest Government Inspector. Your horse will be inspected, and if he has farcy, will be destroyed, and you remunerated.

CANADA'S GRAIN PRODUCTION.

According to latest advices received by the Department of Agriculture, at Ottawa, Canada's grain production for 1908 will total about as follows: Wheat, 115,651,000 bushels; oats, 267,651,000 bushels; barley, 50,723,000 bushels; rye, 1,889,000 bushels; peas, 7,178,000 bushels; beans, 1,182,000 bushels; buckwheat, 7,365,000 bushels; flax, 1,575,000 bushels; corn for husking, 21,007,000 bushels; mixed grains, 19,113,000 bushels.

Ontario's wheat yield is estimated at 17,264,000 bushels, an average of 21 bushels per acre. The oat crop is estimated at 108,794,000 bushels, an average of 35 bushels per acre. The barley crop, 21,570,000 bushels, an average of 29 bushels per acre. The hay and clover crop, 5,329,000 tons, an average of 1½ tons per acre.

The total wheat crop of Manitoba is estimated at 51,748,000 bushels, an average of 17½ bushels per acre. Saskatchewan's wheat crop is placed at 35,940,000 bushels, an average of 15 bushels per acre. Alberta's wheat crop is estimated at 8,130,000 bushels, an average of 30 bushels per acre. For oat crop, the estimated total yields are: Manitoba, 50,267,000 bushels, or 38 bushels per acre; Saskatchewan, 29,763,000 bushels, or 32 bushels per acre; Alberta, 25,451,000 bushels, or 49 bushels per acre.

Figures from official sources at Winnipeg place the total cash value of the Western grain crop at approximately one hundred and twenty-five million dollars. This exceeds former estimates by several million dollars. Conditions throughout the West are most encouraging. Threshing operations are almost finished. A Lethbridge (Alta.) report says that some fields of winter wheat exceeded 70 bushels to the acre. A farmer at Gladstone, Man., is said to have had a yield of 45 bushels per acre off a twelve-acre field. From Regina comes a report that a yield of 38 bushels, grading No. 1, was threshed. These sample yields are the best evidence that the sanguine forecasts of the past months were not far from the mark. Exceptionally favorable weather conditions for seeding in the fall-wheat districts of the West also is shown in the reports.

EASY METHOD OF HARVESTING TURNIPS.

Editor "The Farmer's Advocate":

The method of harvesting roots given in the last issue of "The Farmer's Advocate" is quite an improvement on the old method of pulling by hand and topping with a knife, but we would think this method somewhat behind the times—raising one row at a time with a plow, and then the vast amount of work bumping the turnips together to remove the earth from them.

Our method is to let the young cattle in for a couple of feeds, to take the bulk of the leaves; then topping with a hoe as stated; next, rake the field

across the rows with the horse-rake, to remove the remaining tops, and we are rid of all rubbish, making the work much nicer.

Then we take a common iron (or smooth) harrow, hitch a good smart team to it, lay a board or plank across the sections about the middle of the harrow, stand on the board and drive the horses at a good quick step across the rows, to keep the harrow from sliding around the turnips. When you have gone over the section, raise at once, lay the board to one side and run beside the harrow, driving the team along the rows—the faster you go, the faster the turnips roll. This prevents the harrow from clogging, and removes all the earth from the roots. In this way two men can harvest a lot of turnips in a day.

Pontiac Co., Que. YOUNG FARMER.

THE DUTHIE - MARR SHORTHORN SALE.

At the annual auction sale, on October 13th, of bull and heifer calves from the noted herds of Mr. Wm. Duthie, of Collynie, and Mr. John Marr, of Uppermill, Aberdeenshire, the attendance of breeders was large and trade quite brisk, although the average of prices was somewhat lower than last year. The 14 Collynie bull calves made an average of £235 13s. (\$1,173), the highest price being 620 gs. (\$3,250), for the red calf, Royal Vanguard, by Vanguard, purchased by Col. Grant Smith, Minmore. The second highest price, 550 gs., was paid by Mr. Geo. Harrison, Gainford, for the roan, Collynie Prince, by Vanguard, and out of a Princess Royal cow by Royal Edward. Dr. R. M. Wilson, Tarty, took the roan, Collynie Prince Royal, by Scottish Fancy, at 430 gs., and Mr. J. Deane-Willis secured the red Collynie Vanguard at 400 gs. The prices for the Collynie bulls ranged from 52 gs. to 620 gs. The ten heifer calves from the same herd averaged £131 (\$653), the highest price being 260 gs. The average for 17 Collynie bull calves at the 1907 sale was £409 16s., which was by far the highest in the history of the sales from the herd.

The 10 Uppermill bull calves sold made an average of £68 7s., as compared with £105 last year, the highest price this year being 250 gs., for the red Royal Bank, taken by Martinez de Hos, Buenos Ayres. The remainder brought prices ranging from 21 to 150 gs.

Seven bull calves by Vanguard (97521), a red bull bred by Mr. Duthie, sired by Pride of Avon, and out of a Roan Lady dam, averaged £292 7s. Two by Scottish Fancy (75601), a white bull, bred by W. S. Marr, at Uppermill, sired by Stigton Pride, and out of Goldie 35th, by William of Orange, made an average of £278 5s. These were the two sires whose progeny made the highest averages. Two of the Collynie bull calves were bought for Mr. D. Carrill, of Medicine Hat, Alta. These were the only purchases for North America.

UNTHRIFTY COW.

Cow has been unthrifty for a year. When chewing, saliva runs from her mouth. She has a good appetite, but is very thin, and does not give as much milk as she should. She calved a month ago. W. F. J.

Ans.—She has either defective teeth or a form of actinomycosis, called wooden-tongue. If the former, her teeth must be dressed by a veterinarian. If the latter, give her the iodide of potassium treatment for lump-jaw. This consists in giving iodide of potassium three times daily. Commence with one-dram doses, and increase the doses by one-half dram daily until appetite and desire for water fail, tears run from her eyes, and the skin becomes scurfy. When any of these symptoms become well marked, cease giving the drug. Repeat treatment, if necessary, in two months. V.

LAME MARE.

Mare has been driven fifteen miles daily all summer and watered during the trip. About six weeks ago she went slightly lame in front. She gets quite stiff after standing, and after being driven a little gets better, but is slightly lame all the time. P. M.

Ans.—It was quite right to give her water during the trips, unless in cases when she was excessively warm. The symptoms indicate navicular disease. As the disease has not yet reached an advanced stage, it is quite probable a cure can be effected, but she must be given a long rest. Get a blister made of two drams each of biniodide of mercury and cantharides mixed with two ounces lard or vaseline, clip the hair off the coronets for two inches high all round the hoof. Tie so she cannot bite the parts. Rub well with the blister once daily for two days, and on the third day apply sweet oil. Turn in box stall now and oil every day until the scale comes off. Then blister again, and after this blister

once every month as long as necessary. Take her shoes off before commencing treatment. V.

Miscellaneous.

SCORE-CARD FOR JUDGING HORSES.

I wish you would publish in "The Farmer's Advocate" how City-bredales are judged with score-card; also the different points, and what each point calls for. P. S. R.

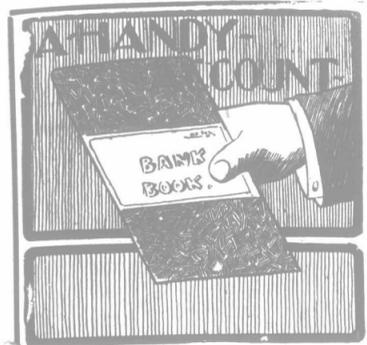
Ans.—Judging horses or other live stock by a score-card has not proved satisfactory in the show-ring, and has, after repeated trials, been abandoned as impracticable. Wide difference of opinion on the part of experienced breeders and judges as to the comparative value of the various points and characteristics, render it difficult to frame a standard to work by that is satisfactory in every respect to even two judges acknowledged to be competent. The horse which balances best in the estimation of the acting judge in conformation, size, type, quality of bone and feet, action and soundness, should win under that man's ruling; but another, placing more value on certain points than he, might conscientiously change the placing.

That Lord Brougham was fully capable of a quick retort is shown by the following:

"You, my lord," said Wellington, angry with him, "will be remembered not for having been a great lawyer, nor for having written profound philosophical essays, but for having given your name to a peculiar style of carriage."

"And your grace," answered Brougham, "will be remembered, not for having gained the battles of Vittoria and Waterloo, but for having given your name to a fashionable kind of boots."

"Oh!" said Wellington, "damn the boots, I forgot 'em."



FOR THE FARMER

Is a Savings Account at the Bank of Toronto. Your spare money deposited there will earn interest for you, and will be as available to you at all times as though in your pocket. Also the money will be SAFE.

Bank of Toronto
ASSETS, - - - \$38,000,000

MARKETS.

TORONTO.
LIVE STOCK.

Monday, Oct. 26th, being election day, receipts of stock at West Toronto were light, numbering 436 cattle. Trade slow. Export steers, \$4.50 to \$5.00; choice butchers', \$4.75; loads of good, \$4.15 to \$4.50; medium, \$3.75 to \$4.00; common, \$3.55 to \$4.00; cows, \$2.50 to \$3.50; milch cows, \$44 to \$65; calves, \$4.00 to \$6.00 per cwt. Sheep, \$3.25 to \$3.45; lambs, \$4.00 to \$4.40. Hogs, selects, \$6.15; \$5.90 at country points.

REVIEW OF LAST WEEK'S MARKET.
Receipts of live stock at Toronto last week totaled 367 cars; 5,784 cattle, 6,770 hogs, 5,104 sheep and lambs, 264 calves, and 82 horses.

The quality of cattle sold for export and butcher purposes was not as good at the Union Yards as usual, but much the same as has been coming for many weeks past at the City. Trade was dull for all classes of fat cattle, excepting a few first-class butchers', which were scarce, and worth as much as the exporters.

Exporters.—Steers of finished quality were worth \$5, but the bulk sold at \$4.50 to \$4.85; bulls, \$3.50 to \$4.40, but the bulk sold at \$3.75 to \$4 per cwt.

Butchers.—Prime picked lots of butchers' sold at \$4.75 to \$5; loads of the best, \$4.30 to \$4.70; medium, \$3.75 to \$4; common, \$3.25 to \$3.50; cows, \$2.50 to \$3.75; canners, and bulls, \$1 to \$2.35.

Stockers and Feeders.—Short-keep feeders, 1,150 to 1,200 lbs. each, sold at \$3.90 to \$4.25; steers, 1,000 to 1,100 lbs. each, \$3.40 to \$3.65, and extra quality, \$3.70 to \$3.80; stockers ranged all the way from \$2.25 to \$3, according to quality.

Milkers and Springers.—Real first-class milkers, and forward springers, such as are wanted by the Montreal and Quebec buyers, sold readily at \$45 to \$65 each, with a few going as high as \$70, and \$75 each. Carloads were shipped to Montreal that averaged as high as \$53 each. Common, light cows, sold from \$25 to \$35 each.

Veal Calves.—Receipts of veal calves were light and prices firm for any approaching good quality. There are too many 300 to 400 lb. calves, that are neither beef nor veal. The bulk of the best sold at \$5.50 to \$6.50, with prime new-milk-fed at \$7. Heavy calves, \$4 per cwt., with some inferior bobs at \$3 per cwt.

Sheep and Lambs.—Receipts were large, with trade inclined to be slow. Prices were easy at following quotations: Export ewes, \$3.25 to \$3.50 per cwt.; rams, \$2.25 to \$2.75 per cwt.; lambs, \$4.25 to \$4.50, with a few lots of ewes and weathers at \$4.60 to \$4.65 per cwt. Hogs.—Selects, fed and watered at the

market, sold at \$6.25, and \$6 to drovers' lots, in cars at country points.

Horses.—Only a limited number of horses were on sale at any of the markets during last week, and trade was quiet, especially in the heavy drafters, unless it were something extra choice in quality. A few general-purpose and wagon horses of good quality found ready sale. Dealers report the same conditions in the country, farmers refusing to sell at prices that would allow for trouble and expenses. Prices were reported as follows: General-purpose and wagon horses, \$140 to \$170; farm workers, \$125 to \$160; choice expressers, \$160 to \$195, serviceably sound, \$35 to \$75 each.

BREADSTUFFS.

Wheat.—No. 2 white, 89½c. bid; No. 2 red, 90c. bid; No. 2 mixed, 90½c. bid. Manitoba.—No. 1 northern, \$1.04; No. 2 northern, \$1.01½, at lake ports. Rye.—No. 2, 78c. to 79c. Peas.—No. 2, 85½c. Oats.—No. 2 white, 38c.; No. 2 mixed, 38c. Barley.—No. 2, buyers 56c.; No. 3X, 54c. Corn.—No. 2, 85½c. Bran.—Car lots, in bags, on track, \$22. Shorts.—Car lots, in bags, on track, \$24 to \$25. Flour.—Ontario, 90 per cent. patent, sacks \$3.50; Manitoba patent, special brands, \$6; second patents, \$5.40; strong bakers', \$5.30.

COUNTRY PRODUCE.

Butter.—Receipts fairly large, prices 27c.; creamery solids, 24c. to 25c.; separator dairy, 23c. to 24c.; store lots, 21c. to 22c.

Cheese.—Market easy, with prices unchanged. Large, 13½c.; twins, 14c.

Honey.—Market steady. Strained, 10c. to 11c.; combs, \$1.75 to \$2.75 per dozen sections.

Eggs.—Receipts light, market firm, at 22c. to 23c.

Beans.—Market easier, primes \$1.75 to \$1.85; hand-picked, \$1.80 to \$1.90.

Potatoes.—Receipts of Ontario potatoes were large, with prices easier, at 55c. to 58c. per bag, on track, for car lots.

Poultry.—Receipts large, prices easier, as follows: Dressed turkeys, 13c. to 15c.; geese, 9c. to 10c.; ducks, 9c. to 10c. chickens, 10c. to 12c.; fowl, 8c. to 9c.

Hay.—Market steady, baled, in car lots, \$10.50 to \$11.

Straw.—Baled, in car lots, on track at Toronto, \$6.50 to \$7.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front St., wholesale dealers in wool, hides, etc., report paying the following prices: No. 1 inspected steers, 60 lbs. and upwards, 9c.; No. 2 inspected steers, 60 lbs. up, 8c.; No. 1 inspected cows, 8½c.; No. 2 inspected cows, 7½c.; No. 2 inspected cows and bulls, 6½c.; country hides, cured, 7½c.; calf skins, city, 12c.; calf skins, country, 11c. to 12c.; horse hides, No. 1, \$2.50; horse hair, per lb., 29c.; tallow, per lb., 5½c. to 6½c.; wool, unwashed, 9½c.; wool, washed, 13c. to 14c.; lamb skins, 45c. to 55c.; shearings, 40c. to 50c.

SEED MARKET.

The William Rennie Co. report little doing on the seed market, with prices still lower for alsike. Alsike, fancy quality, \$7 to \$7.25; alsike, No. 2 quality, \$6.50 to \$7.75; alsike, No. 3 quality, \$6 to \$6.25; red clover, \$4.50 to \$5; timothy seed, \$1.30 to \$1.60.

CHICAGO.

Cattle.—Steers, \$4.40 to \$7.60; cows, \$3.25 to \$5.25; heifers, \$3 to \$4.25; bulls, \$2.50 to \$4.50; calves, \$3.50 to \$8.50; stockers and feeders, \$2.60 to \$4.65.

Hogs.—Choice heavy shipping, \$5.85 to \$6; butchers', \$5.80 to \$6; light mixed, \$5.15 to \$5.40; choice light, \$5.50 to \$5.70; packing, \$5.45 to \$5.80; pigs, \$3.50 to \$4.75; bulk of sales, \$5.45 to \$5.85.

Sheep and Lambs.—Sheep, \$4.35 to \$4.75; lambs, \$4.50 to \$5.50; yearlings, \$3.85 to \$4.75.

BUFFALO.

Cattle.—Prime steers, \$5.60 to \$6. Veals, \$6 to \$9.25.

Hogs.—Heavy, \$6.15 to \$6.25; mixed, \$6 to \$6.25; Yorkers, \$5.25 to \$6.20; pigs, \$4.25 to \$5; roughs, \$4.75 to \$5.25; dairies and grassers, \$5 to \$6.

MONTREAL.

Live Stock.—Shipments of live stock from port for the week ending October 17th, were 1,051 sheep and 4,064 cattle, against 297 sheep and 4,782 cattle the previous week. Shippers have been enquiring for ocean freight space lately, and rates hold steady, all the Liverpool space for the rest of October being taken at 30s., and for London at 25s. to 30s. per head, at which range Manchester space is offering, Glasgow being 30s.

On the local market the offerings of choice cattle last week were limited, those of common and inferior stock being liberal. The result was that choice were firmer, 4½c. to 5c. being paid for best Ontarios, some choice Manitoba domestic cattle selling for export at 4½c. to 4¾c., good butchers stock being around 4¾c., medium 3¾c. to 3½c., common 2½c. to 3c., and inferior down to 2c., per lb. Sheep and lambs were rather easier, owing to more liberal supplies and light export demand. Lambs sold for local account at 4½c. to 5c. per lb. for choice, and 4½c. to 4¾c. for good, sheep being in slow demand, at 3½c. for choicest and 3c. to 3½c. for culls. The offerings of calves were pretty light and demand fair, the market being steady to firm, at \$3 to \$10 each. The tone of the hog market was easy, notwithstanding the small offerings, and prices were about ¼c. less than the week before, at 6½c. per lb. for selects, weighed off cars, and 6c. to 6½c. for inferior.

Horses.—Dealers reported a steady demand for horses. The stock being sold was mostly for out of town, lumbermen being the principal purchasers. Heavy draft, 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250 each; good blocks, 1,300 to 1,400 lbs., \$175 to \$200; small or inferior, 1,000 to 1,100 lbs., \$100 to \$150; broken-down horses, \$50 to \$75, and choice saddle and carriage animals, \$300 to \$500.

Dressed Hogs.—Choicest fresh-killed, abattoir-dressed hogs were steady, at 9½c. to 9¾c. per lb.; pure lard, 13½c. to 14c. per lb.; compound, 8½c. to 9½c.

Potatoes.—The market held firm; shippers were asking 72c. per 90 lbs. for Green Mountains, on track here. These were being turned over at an advance of about 3c. in car loads, while grocers had to pay 80c. to 85c. Single bags cost from 90c. to \$1. There is an active export demand for Green Mountains, and thousands of bags have been going out from New Brunswick ports, thus strengthening the market greatly. Some P. E. I. stock is arriving here, costing about 5c. less than Green Mountains, Quebec stock being available around the same figures as P. E. I.

Honey.—Stock scarce, prices steady, at 14c. to 15c. each for white-clover comb sections, and 12c. to 13c. for buckwheat. Light strained 10c. to 11c. per lb., and dark is 9c.

Eggs.—Quality of the eggs offering is poor and quantity small. Dealers last week were paying 19c. to 20c. per doz., country points, for straight-gathered, and selling them here at 22c., selects being 25c., and boilers 28c. per doz.

Butter.—Although 25½c. was paid at one point in the Townships, it was for 30-lb. tubs, which are at a premium, the general range for large packages being 25½c. to 25¾c. Finest makes could be had at 25c. to 25½c., in a wholesale way, some holding out for ¼c. more than these figures, however. Smaller lots sell at 26c. to 26½c. There have been absolutely no shipments lately, an almost unprecedented occurrence at this time of year.

Cheese.—Quite an active demand developed last week for colored cheese. For the week ending October 17th, shipments amounted to but 50,500 boxes, which was 34,000 fewer than for the corresponding week of 1907. Eastern cheese ranged from 11½c. to 12c., and Ontarios from 12½c. to 12¾c. per lb.

Grain.—Oats, 44c. to 44½c. per bush. for No. 2 white Ontario, car lots, in store; 43c. to 43½c. for No. 3, and 42½c. to 43c. for No. 4, Manitoba old crop being 45½c. to 46c. for No. 2 white, 44½c. to 45c. for No. 3, and 43½c. to 44c. for rejected. For export, buckwheat is steady, at 60c. to 62c. for No. 2, float.

Flour.—\$6 per bbl., in bags, for Manitoba spring wheat patents, in car lots, and \$5.50 for seconds, \$5 to \$5.25 for

Ontario winter wheat patent, and \$4.50 to \$4.60 for straight rollers.

Feedstuffs.—Demand for bran and shorts was moderate and prices firm, Manitoba or Ontario bran being available at \$21 to \$21.50 per ton, in bags, and shorts at \$25 to \$26. There was some demand for oil cake, gluten, etc., the market being firm, at \$25 per ton, in ton lots, for gluten, \$32 for oil cake, and \$33 for cotton seed.

Hay.—Market was easy; demand and supply fair. Prices were \$12 to \$12.50 per ton for No. 1 timothy, car lots, Montreal; \$11 to \$11.50 for No. 2 extra, and \$10 to \$10.50 for ordinary, \$9 to \$9.50 for clover mixed, and \$7 to \$7.50 for clover.

Hides.—Demand fair. Dealers were paying 7½c., 8½c., and 9½c. per lb., respectively, for Nos. 3, 2 and 1 beef hides, and 11c. and 13c. for Nos. 2 and 1 calf skins, and selling to tanners at ¼c. advance. Sheep skins were 35c. to 40c. each, and horse hides \$1.50 for No. 2, and \$2 for No. 1. Rough tallow was 1½c. to 4c. per lb., and rendered 5c. per lb.

CHEESE BOARD PRICES.

Peterboro, Ont., 12 3-16c. to 12½c. Woodstock, Ont., 11½c. bid. Belleville, Ont., white, 11½c. to 11 18-16c.; colored, 12c. Brockville, Ont., 12c. for white and 12½c. for colored. Kingston, Ont., 11½c. to 12 3-16c. Russell, 12c. Napanee, Ont., 12½c. for colored and 11 18-16c. for white. Listowel, Ont., 11 18-16c. (on curb). Picton, Ont., 12 3-16c. Cornwall, Ont., 11 18-16c. for white and 12 3-16c. to 12½c. for colored. Iroquois, Ont., 12½c. Victoriaville, Que., 11½c. (no board). Huntingdon, Que., white cheese, 11½c.; colored, 12 1-16c.; salted butter, 25½c. to 25¾c. London, Ont., 12c. Chicago, Ill., creamery butter, 20c. to 26c.; dairy butter, 18c. to 23c.; cheese, 12½c. to 13½c. New York, cheese, 11c. to 11½c.

BRITISH CATTLE MARKET.

London cables for cattle at 11½c. to 12½c. per lb., dressed weight; refrigerator beef, 9½c. to 9¾c. per lb.

TRADE TOPICS.

Increased use of gasoline power for general work on the farm and in the shop finds stronger competition among manufacturers to improve their machines, as well as to bring the price within the reach of those who wish to use them. The "Champion" gas and gasoline engine, manufactured by Wm. Gillespie, of 98 Front street east, Toronto, is sold on trial, satisfaction guaranteed, or no sale. A reasonable price and superior quality has brought large sales, with bright outlook for still brisker demand in the future.

Prominent among the firms manufacturing wire fencing stands The McGregor-Banwell Fence Co., Ltd., of Walkerville. High-grade material and energetic business-hustling have resulted in a demand for a gradual increase in their plant. A year ago a new factory building, one hundred feet square, with two stories of reinforced concrete, was erected. This season has found a storage warehouse 160 x 100 constructed. The buildings of this fence company now cover over one acre of floor space.

The value of sugar foods in fattening stock has long been known in England. The claim has been made that by adding small quantities of high-grade brands, the average animal can be fattened in less time than taken without special foods. The Rex Sugar Food Co., of Weston, Ont., is prepared to supply the demand in Canada, and offer to return the money if the purchaser is not satisfied with results.

Despite the fact that business generally has been somewhat duller for several months past than for many years, The Hamilton-Hoxie Wire Fence Co., Ltd., of Hamilton, have found it necessary to increase their factory space. This is the most substantial evidence that their fence has filled the bill. With wire gradually replacing rails, farmers are becoming experts in selecting wire fencing of high quality. This Hamilton firm is equipping itself to meet an increased trade for 1909.



Life, Literature and Education.

Before the end of another week Hallowe'en will again have come and gone, its license for merrymaking and trick-playing once more affording a curious illustration of how a religious ceremonial may, when the awe and spirit which inspired it are dead, degenerate into mere buffoonery, the more pointless because even the ceremonials out of which it grew are generally unknown.

The celebration of Hallowe'en as a religious festival dates far beyond the Christian era. The Druids observed it, but with dread rather than with rejoicing, keeping fires alight among the dim forests of Britain the whole night through to drive off evil spirits.

Out of this superstition, possibly, grew the later belief that upon the night preceding All-Saints' the spirits of darkness are loosed, and for one night permitted to work their will, and when this belief in turn died out, its relic remained in a mere license for revelry which would not be tolerated at any other time of the year.

The feast of All Saints', which Hallowe'en ushers in, has not, however, been so lost sight of, being still observed in the Protestant Episcopal, Roman Catholic, and Lutheran churches, in honor of all the saints of Heaven. In the Eastern churches the festival has been observed since the fourth century. In the West it was instituted in the early part of the seventh century by Pope Boniface IV., on the occasion of dedicating the Pantheon (built by Marcus Agrippa, 25 B. C., in honor of Jupiter and all the gods), to the worship of the true God.

Theodore Roosevelt, the son of President Roosevelt, who graduated from college not long ago, has gone to work sorting wool in a carpet factory, preparatory to learning the business. Like the other employees, he is obliged to go to work at seven in the morning, put in his ten-and-a-half-hour day's work, and accept the small wage paid to all beginners. No doubt the path will be made as easy as possible for him. He will scarcely be "up against it" to so great an extent as the young laborer of less illustrious parentage, yet he will be obliged to conform to rules, the discipline of an establishment must be upheld.

President Roosevelt might have put his son at a lily-handed job, but he did not. Realizing the place which he may yet have to fill in the public life of the United States, he has determined that he shall have the broadest possible outlook; that he shall learn human nature as it only can be learned by coming into close contact with it in more than one sphere of life; that he shall be enabled to understand the workingman and his problems through being himself a workingman; that he shall learn the dignity and meaning of skilled manual labor by actual practice; that he shall become a

capable business man through that acquaintance with business life which can only be acquired intimately by mastering all the details even of one business. If at the end of his training young Roosevelt escapes being an all-round man, shrewd, capable, unprejudiced, liberal, it will not be the fault of his father.

At all events, President Roosevelt, in counselling his son to such a course, has set a grand example. The all-round man, the one best fitted for all ordinary and public walks of life, is one who is most capable in every way, who can do manual or mental work as necessity offers, and can thus command a view of both fields. In these days of books and the possibilities of disseminated education, every workingman should be an educated man, and every educated man, when occasion demands, a workingman. This has scarcely been as well understood as it should be. Possibly, the fact that the President of the United States and his son have appreciated it, may do a little to impress the necessity upon other minds.

We quote from Christian Guardian: "Some twelve years ago the bar in the House of Commons acquired an unenviable notoriety through the over-indulgence of some of our legislators, and shortly afterward, in one of the first sessions of the new Parliament, the Speaker announced that the bar would be closed at once. We presume that this was done, but something has happened since, and the bar has been restored to the legislative building. Last spring the matter was brought to the attention of the public, and it was supposed that there would be an end of it, and that no unlicensed bar would be again allowed within the limits of the House of Commons building. But on July 18, 1908, the matter was brought up in the House of Commons by Mr. Richard Blain. Mr. Pugsley asked: 'Has not that been abolished long ago?' and Mr. Lancaster answered: 'It was in full blast yesterday.' Mr. W. R. Geldent, of Truro, looked into the matter, and was told that the bar was conducted by Samuel Cassidy. Now the returns show that Samuel Cassidy was paid for 157 days' work, at \$2.75, which is \$431.75. It was stated, also, that the profits of the bar went to the man who conducted it. There is also a watchman, whose business it is to keep undesirables out of said bar, and we suppose he also is paid by the people of Canada. This may seem a little thing, yet surely it is beneath the dignity of our Canadian Parliament to allow a bar at its very doors. Just who was responsible for the re-introduction of the bar we do not know, but we think that the next Legislature, when it meets, should at once get rid of this most undesirable acquisition."

The above suggestion must be endorsed by everyone who desires to see fair dealing in connection with all that transpires at our center of Government. Some years ago, in visiting the House of Parliament, we were shown the bar in the basement, and the wine cellar, in which a light was burning, but which was guiltless of any sign of casks or bottles. It was intimated, however, that it was only necessary to pass through a

door into the apartments under the Senate Chamber to be served with whatever drinks one wanted. At the time the query suggested itself as to the need of such an appendage to the House at all, nor has the necessity since appeared. Surely our legislators, above all men, and above all during the session, in which legislation is in progress, should be clear of brain and judgment, a condition to which the presence of a bar does not greatly conduce. True, the latter may be patronized by comparatively few, yet evil that exists at all is evil. Even leaving that out of the question, the House was not built for such indulgence, but for work, the greatest work the country can provide; then why prostitute any portion of it, or any portion of the people's money which goes to its support, to such an end?

The fabulous sums paid this year for paintings by the old masters exemplifies again the tendency to heap upon men's graves the roses which have been withheld from them during their lives. Turner was not, it is true, unappreciated. Owing, perhaps, to his exaltation by the popular Ruskin, above any artist of his day, his pictures found ready sale and he "made money," yet since his death three-quarters of a million pounds have changed hands in King St., London, alone for his paintings. The highest figure for a single picture this year was 12,600 guineas, paid for "Morelake Terrace," a picture which only thirteen years ago was bought for 5,200 guineas. Statistics do not tell the original price realized by Turner himself. About the same time Constable's "Salisbury Cathedral," painted in 1826, for which Constable did not receive, probably, more than 100 guineas, sold for 7,800 guineas; and a Gainsborough, "The Artist's Daughter," which was bought in 1878 for 360 guineas, sold for 4,550 guineas. Romney's "Mrs. Morley," which realized 30 guineas in 1790, sold this year for 2,750 guineas; and Sir T. Lawrence's "Duchess of Norfolk," bought in 1831 for 11 guineas, sold for 820 guineas.

There is injustice somewhere in such unreasonable advances in price. Either these pictures, faded as they have become, are tremendously over-rated at the present day, and someone is rejoicing in virtually ill-gotten gain, or they were tremendously under-rated in the first place, when glowing in their pristine beauty, and the artist, whose very life went into the making of them, was the sufferer. Perhaps a little of both is true.

As a rule, the artist, in his day and generation, receives about as little encouragement, from a pecuniary standpoint, as any man of his time. His works may be admired, but too often are left hanging on the walls of his studio. Half a century or more after his death men may be quarrelling to gain possession of them at all sorts of fancy prices.

And yet the discrepancy is due to that same old principle which does not confine itself to the world of art. We are too sadly ready to keep back the roses while the living man might receive joy and courage from them. When he is dead we heap them on his coffin.

ITEMS OF INTEREST.

The Building Code Revision Committee in New York wishes to restrict the height of buildings to 300 feet, unless when they face a park or square, in which case they may be 350 feet.

Mr. Andrew Carnegie has devoted £250,000 to the creation of a hero fund, to be used for the financial benefit of those who have been injured permanently, or for a time, in saving human life, the money in case of the death of the "hero" to go to those immediately dependent upon him.

A good story is told of the artists, Van Dyck and Franz Hals. Van Dyck, upon one occasion, had an opportunity to visit Hals at his studio, and resolved to do so incognito, pretending that he was merely a gentleman who had called to have his portrait painted. Hals completed the sketch with his usual swiftness, when the visitor, remarking that painting seemed a very easy matter, asked permission to try his hand. Working with equal rapidity, he presently produced an admirable sketch of his host. Hals glanced at it with amazement. "You," he said, "must be either Van Dyck or the Devil."

Among the many solutions given as to the origin of the kilt, the following, taken from Sir Herbert Maxwell's book, "A Duke of Britain," is interesting: It grew, he says, out of the dress worn by the Scotch Auxiliaries of the Roman Legions in the time of the Emperor Honorius, A. D. 397, constituting then the sole garment of the wearer, and consisting of a plaid of dyed wool wound round the hips to form a kilt, with the free end passed twice over the left and under the right shoulder.

Apropos of this question an old legend to the effect that the tartan originated in the fading of our first parents' aprons of fig-leaves into patches of various colors, may be amusing. A few verses written nearly half a century ago by a Scotch minister, and recently contributed to "T P's," refers to another legend:

Gaelic in Eden.

Shall Gaelic speech be e'er forgot
And never brought to mind?
For she'll be spok in Paradise
In the days of auld lang syne.

When Eve, all fresh in beauty's charms,
First met fond Adam's view,
The first words that he spoke to her
Were "Kimner-a-shun-dhu!"

When Adam from his leafy bower
Came forth at break of day,
He'd always for his "Morning" take
A Quash of Usquah-bagh.

And Adam in his garden fair,
Whene'er the day did close,
The dish that he'd for supper take
Was always Atholl Brose.

And when wi' Eve he'd hand a crack,
He'd take his Sneeshin Horn,
And on the top ye weel micht mark
A bonny braw Cairngorm.

The Sneeshin Mull is fine, ma freens,
The Sneeshin Mull is grand,
We'll take a hearty sneesh, ma freens,
And pass 't frae hand tae hand.

When man first felt the want o' claes,
The wind and cauld tae fleg,
He twisted roon about his hips
The Tartan Philabeg.

And Music first on earth was heard
In Gaelic accents deep,
When Jubal in his Oxter squeezed
The Blether o' a sheep.

The braw bagpipes is grand, ma freens,
The braw bagpipes is fine,
We'll tak' anither Pibroch yet
For the days o' Auld-lang-Syne.

FRAGMENTS FROM A WELSH STORY BY ALLEN RAINE.

II.

"TORN SAILS."

"I love her golden shores, her moun-
tains bare,
Her snow-white sea gulls, and her
maidens fair."

No words could better represent
the ardent affection for her beloved
country which breathes through every
page written by the famous Welsh
authoress, Allen Raine, a tribute to
whose memory appeared in our paper
a fortnight ago. It is thus she de-
scribes "Mwntseison," the scene of
her sweet and wholesome little love-
story, "Torn Sails." We can al-
most see it as we read.

"Between two rugged hills, which
rose abruptly from the clear green
waters of Cardigan Bay, the Gwen-
draeth, a noisy little river, found its
way from the moors above to the
sands which formed the entrance from
the sea to the village of Mwntseison.
"In the narrow valley or 'cwm'
through which the fussy little stream-
let ran, the whole village lay. It
looked like nothing more than a clus-
ter of white shells left by the storm
in a cink of the rocks, the cottages
being perched in the most irregular
confusion, wherever sufficient space
could be found between the rocky
knolls for a house and garden. The
stream running through the center of
the village was an object of interest
and attraction to the whole com-
munity, being the common rendezvous
for all sorts of domestic operations.
On its banks the household washing
was carried on, fires being lighted
here and there, on which the water
was boiled in large brass pans."

Can we not almost hear the merry
chattering and laughter of the busy
workers, as well as their voices,
when joined in chorus as they sang
their hymns and weird Welsh songs
in sweetest harmony?

Here we are told that Nance Owen
rinsed the laver-weeds, preparatory
to boiling them down into that ques-
tionable delicacy known as "laver-
bread"; that here the sheep from the
moors had, with much shouting and
barking of dogs, to submit to their
yearly washing; here the girls and
boys paddled and sailed their boats
in the summer evenings, and here,
when the storms of winter made the
little harbor unsafe, the fishing-boats
were hauled up together. The
strong wooden bridge which spanned
the narrow river was seldom used,
except in winter, a few broad step-
ping-stones sufficing as a more nat-
ural mode of communication be-
tween the two sides of the valley,
and it was in the humble cottages,
which, with only one or two excep-
tions, were mostly straw-thatched
and weather-beaten, and which clung
to the hillsides in an independent
sort of a way, without any seeming
reference to the rocky, stony and
"regular road between them, that
were lived and breathed the people
of whose joys and sorrows we read
with unbroken interest to the last
page of their story.

THE SAIL FACTORY.

A large wooden building near the
sea, and not far from the summit of
the cliff, was the central pivot upon
which turned all the energy and in-
terest of the place, for within its
ever wide open doors was carried on
the thriving business of sail-making,
a business which gave employment
and comfort to nearly every house-
hold in the place. Hard by, in a
cleft of the hill, stood the house of
Hugh Morgan, the "Mishter" (or

master), who was their employer and
the owner of more than half of the
village, a man who, by his firmness
of principle, uprightness of life, and
rigid adherence to truth, had won
for him the reverence and affection,
not only of Ivor Parry, his dearest
friend and acting manager, but of
those over whom he might almost be
said to have exercised a fatherly
kingship.

Ivor's love, which nearly amounted
to adoration, had begun when, as a
lad of twelve years, he had entered
upon his work in the sail-shed. It
had grown with his growth, until
now, in spite of the difference in
their ages, he had become the trusted
friend, as well as the faithful lieu-
tenant, of its owner. And out of
this devotion was developed a self-
sacrifice which became one of the
threads in the tangled skein which
forms the text of our charming little
love story.

GWLADYS.

Gwladys, the sweet Welsh maiden
who is beloved of Ivor, though she
knows it not, is thus introduced to
us: "She had grown up so calmly
and quietly, had budded into woman-
hood so suddenly, as it seemed to
Ivor, that, with a tender shrinking
from disturbing the even tenor of her
life, he had only too successfully tried
to hide his passion from everyone,
more especially from the object of it.
And thus it was that hitherto she
had not guessed its existence; neither
did she know that she loved Ivor!
They had grown up together, had
paddled in the same stream, sung in
the same glee classes, and latterly
had worked together under the same
employer. "Only eighteen," thought
Ivor. "I will wait until she is twenty
—but meanwhile I will try to win
her love." Oh, blind and foolish
Ivor, and no less blind Gwladys!
who stood upon the brink of that
awakening which should let in a flood
of light and happiness upon her life.
Had they been less blind, less reti-
cent, less careful lest other eyes
should discover their affection for
one another, Hugh Morgan, their
honored master, would have recog-
nized the prior claim of his lieuten-
ant, and would never, by word or
look, have caused either of them a
single pang, and, of course, the vil-
lage idyll of "Torn Sails" might
never have been recorded.

MARI VAUGHAN.

One of the most interesting char-
acters in our story—one whose brief
moment of girlish coquetry had cost
her fifteen years of gnawing regret—is
Mari Vaughan (pronounced Vone
in Wales). As Ivor loved Gwladys,
so Hugh Morgan loved Mari, and
Mari had loved Hugh. That they
could ever drift apart, had never
dawned upon either, and yet there
had come a lover's quarrel which,
while it had left them comrades and
faithful friends, had darkened for
both the sunshine of their lives.
Hugh's strong nature had, as years
went by, found solace in his work,
in the ever-increasing claims of his
people. Mari, her first wild moments
of bitter repentance over, and deter-
mined that no one should lift the
veil which hid her sorrow, bravely
faced her future, and became the lov-
ing friend and counsellor of the
younger folks around her; whilst, be-
tween Hugh and herself had developed
a most perfect friendship, no day
seeming complete on which he had not
seen Mari "Vone." Every incident
connected with his work was laid be-
fore her, her opinion on every matter
weighing much with him. Outward-
ly, every trace had disappeared of
the romance which had once shone
as a halo around their earlier inter-
course, but within the hearts of both,
unrecognized and unacknowledged,
there lingered a few live embers of the
old love still—so unrecognized, how-
ever, that Hugh, without any con-
scious hesitation himself, conveys to
Mari the fact of his growing regard
for pretty Gwladys, and his intention
to ask her to be his wife.

But this little episode must be told
mostly in the author's own words,
in No. 3 of our series.

H. A. B.

The Quiet Hour.

YOUR WORK SHALL BE REWARDED

The Lord is able to give thee much
more than this.—II. Chron. xxv. : 9.

Amaziah, King of Judah, made great
preparations to fight against the Edom-
ites, and tried to strengthen his forces
by hiring a hundred thousand men in
addition to his own army. Then a mes-
senger of God told him that he was
given a free choice. He might go into
the battle relying on this army of hire-
lings, or he might put his trust in God,
and prove it by sending home the men
he had engaged. He could not have
both the earthly and the heavenly assist-
ance, having received this warning. "But
if thou wilt go, do it, be strong for the
battle. God shall make thee fall before
the enemy: for God hath power to help,
and to cast down."

And Amaziah saw plainly that it would
be utter folly to sacrifice God's favor
for the sake of earthly helpers, but there
was one difficulty. These men had al-
ready been paid the large sum of a hun-
dred talents, was that to be entirely
thrown away, was it to be a dead loss?
And the answer was decisive: "The
Lord is able to give thee much more
than this."

It is often so in life. To stand out
boldly for that which is absolutely
truthful and honest and righteous must,
sooner or later, mean earthly loss. This
life is a testing time, and though Satan
may not try to bribe us to worship him,
as he tried to bribe our Master, by offer-
ing the whole world, he often tries to
dazzle our eyes by the glitter of some
great worldly advantage if we will only
stoop to degrade our own souls by
deliberate wrong. Or it may not be a
large gain. Sometimes a person will
cheat in a small way when he would not
think of doing it about greater things.
I bought a picture once that cost \$1, and
found when I got home that two pictures
had been given me by mistake. It was
in a city, and I did not know the people
who had sold it to me, but when I re-
turned it the clerk seemed quite aston-
ished. He evidently thought it probable
that anyone would be glad to get the
extra picture for nothing, when the fraud
could never be traced home. If I had
kept it, what a costly picture it would
have been!—paid for my honesty. God
and my own conscience would have de-
clared me to be a thief, and the loss of
reputation would be a small thing com-
pared with that misery.

When a man is tempted to do a shady
thing in business, because he thinks it
will "pay," let him remember Amaziah.
He found it paid far better to dismiss
his hired allies, even though it meant
a dead loss of a hundred talents, for he
won the battle with God's help, and
would certainly have lost it if he had
been disobedient.

But it is not only in matters of hon-
esty that this text touches our everyday
life. It fits in everywhere. One is
called to make a great sacrifice. Per-
haps duty stands in the way of seeking
one's own happiness. The path of life
which seems most attractive can, per-
haps, only be followed by selfishly sacri-
ficing imperative family claims. If the
path of duty is chosen, no matter what
it may cost, then it is cheering to re-
member our text: "The Lord is able to
give thee much more than this." Those
who choose to wilfully live a selfish life
will fail to find the happiness they seek,
for happiness is only to be obtained
from God, and He will not accept duty
as its price. But be very sure that
happiness, in ever-increasing measure, will
be your portion if you follow God's lead-
ing. "He always wins who sides with
God," who is able and also desirous to
give you far more than you have sacri-
ficed for Him.

When a man leaves out the thought of
God in planning for the future, he makes
a very great mistake. A small income,
with God, is infinitely greater riches than
a million a month, without God. It
gives more genuine happiness, and no

man is really rich if he can't secure hap-
piness. And one strange thing about
life is that the only way to real success
is through sacrifice. This is proclaimed
by every seed-time and harvest. Unless
the seed grain is ungrudgingly sacrificed
there will be no harvest; unless the days
and years of life are sacrificed in un-
grudging service there will be no rich
return, even in this world. Let us re-
member that work done for God cannot
possibly be wasted. He is a rich and
generous Master, watching closely for
every chance to reward openly those who
are really working for Him. If we deal
generously with Him He will certainly
never be anything but royal in His
bounty towards us. Let us place all
that we have and all that we are at
His disposal, in full confidence that He
can do great things in us, and through
us. Through the daily drudgery of com-
mon days, if accepted with radiant trust
as God's way of polishing His jewels, we
may shine like His dear saints and give
Him ever-fresh joy. Think what an
honor it is to be able to make God re-
joice, and He surely does rejoice when
His children trudge patiently and steady-
ly on their daily round, like Israel
marching round Jericho. When the right
moment arrives the steady marching will
prove to have been effective, and the
walls which blocked all progress will
fall. Let us remember that each of us
is very precious in God's sight. We
don't know what grand task He may set
us any day, but we do know that the
lessons He sets us to learn to-day are
preparations for the future. If we don't
learn the patience and trust and courage
needed to help us to walk grandly to-
day, we shall probably fail when the
greater crisis arrives.

Never submit to be discouraged if God
is working with you. A farmer drops a
seed into the ground. It is a little act
which any child could do. God works
with him, and the seed mysteriously in-
creases. So also you try to do good to
the souls of others. You drop in your
seed, feeling how little you can do. But
if it is watered by prayer, if you are
wise enough to secure God as your ally,
that little seed may accomplish more real
spiritual good than any amount of ex-
pensive missionary machinery. But when
you see astonishing returns for your
small outlay, don't take all the praise to
yourself. A man may appear to make
an electric car move swiftly along, but
he really does a very small part of the
work, though it is all that can be seen.
If the invisible electricity were not there
to supply the propelling force, the man
could do nothing. And if you try to
wake the spark of love for God in any
soul, and it springs up at your touch,
never forget that God has done it, and
He is able to give you far greater re-
turns for your work than you can ask
or think. "Be ye strong, therefore, and
let not your hands be weak: for your
work shall be rewarded." HOPE.

Dear Friend Hope,—It is with great
pleasure that I write you these few lines,
trusting that in them somehow you may
get a cheering word of joy and encour-
agement to your soul. If you only knew
the blessing that you have brought to
my soul through your thoughts in the
Quiet Hour. And, my, how I look for-
ward every week for the coming message
in the Quiet Hour; and, praise God, I
have never been disappointed yet. I have
only been taking "The Farmer's Advo-
cate" about nine months, and I feel now
that I could never do without it. The
messages in the Quiet Hour alone are
worth far more than the subscription it-
self. Indeed, no money could buy their
worth.

So now I will say good-bye to you,
looking forward to many more blessed
messages from God through you, and
that He may continue to fill you with
his blessed Holy Spirit, and inspire you
and fit you more and more each day for
His service, and remember you shall have
my prayers, which, I trust, shall be like
Aaron and Hur holding up Moses' hands
when they were too heavy for him in the
battle at Rephidon, thus giving victory
and deliverance to Israel.

DYSON ROMILLY.

I have already written to thank the
writer of the above letter, which was
too long to give in full, but was none
the less welcome. Such words of good
cheer are always most helpful. HOPE.

About the House.

RECIPES.

Cheese Fingers.—When pies are made, take a piece of the dough, roll very thin, and cut into strips about 3½ inches long and 1½ inches wide. On one strip sprinkle grated cheese, a dash of salt and Cayenne pepper or paprika. Lay on another strip, pinch together, brush with yolk of egg or milk, and bake in a slow oven.

Hamburg Steak.—Put a piece of round steak, or the tough end of a sirloin steak, through the meat chopper. Season with pepper, salt, and onion juice or chopped onion. Mix well, form into cakes and fry. If you keep the hands moistened with cold water, the meat will not stick to them while manipulating the meat.

Apple Fritters.—Core and pare four apples, and slice them crosswise in round slices. Beat one egg light, add one cup milk, and one cup flour, in which has been sifted one teaspoon baking powder and a pinch of salt. Beat hard for three minutes, then put the sliced apples into the batter. Have ready a kettle of hot lard, and drop the batter into it in spoonfuls, having a slice of apple in each fritter. Fry for ten minutes. As the lard may be used over and over, such fritters are not as expensive as they may seem.

Potato Cones.—Boil six large potatoes. Mash, and season with pepper, salt and onion juice. Beat in one tablespoon butter and two tablespoonfuls milk. Shape carefully into cones, and brown ten minutes in the oven.

Chocolate Pie.—Line a plate with rich pie-crust and bake. Make a filling as follows: Heat together one cup milk, one-half cup sugar, butter size of a hickory-nut. When hot, add one and a half tablespoons grated chocolate, and when cooked stir in the beaten yolks of two eggs. Dissolve in cold milk 1½ table-spoons cornstarch, stirring over the fire until smooth. Add one-half teaspoon of vanilla, and fill the crust with the mixture. Cover top with the beaten whites of the eggs, or with whipped cream.

Steamed Corn Bread.—Two cups corn-meal, one cup flour, one small cup molasses, two cups sour milk, one teaspoon soda, one teaspoon salt. Steam three hours.

Hard Sauce.—To be used with hot gingerbread, used as pudding, etc.: Slightly soften one-half cup butter by adding one tablespoon hot water. Stir until creamy, and then stir in one and one-half cups light-brown sugar. Stir until very light. Flavor with nutmeg and vanilla. As only a little of this sauce is used, half the quantity will do for a small family.

English Apple Pie.—Slice sour apples very thin, and fill a deep dish. Add one-quarter cup water, two-thirds cup sugar, a sprinkle of salt, and grating of lemon rind. Wet the edges of the dish, and cover top with a good paste. Eat warm with or without cream and sugar.

Cheese on Toast.—Grate as much cheese as required, sprinkle on it a little mustard, salt and red pepper. Cover slices of toast with the mixture, put in a hot oven, until the cheese begins to melt, and serve at once.

Potato Griddle Cakes.—One cup flour, sifted with one teaspoon baking powder and one-half teaspoon salt, two potatoes grated. Make into a batter with one-half cup milk, and fry on a well-greased hot griddle.

A Good Bread Pudding.—Slice some nice bread thinly, and butter the slices. Peel, core and cut up some good baking apples. Butter a pie-dish and fill it with layers of the bread and apples until full, sprinkling each layer of apples with sugar and any kind of spice that is preferred. Bake until the apples are perfectly soft.

Spiced Apple Pickles.—To three pounds pared apples (whole or quartered) allow one and a half pounds sugar and one-half cup vinegar. Tie in a cheese-cloth bag a stick or two of cinnamon, a blade or two of mace, and a few cloves, and put with the vinegar and sugar, and a cup of water. When the syrup boils, put in the apples. When tender, seal.

Jellied Apples.—Remove cores and pare tart apples, leaving them whole. Set in an earthen baking dish, and fill cavi-

ties with sugar. Pour a little water about them, cover, and bake. Serve cold.

HELPFUL HINTS.

Beating a cake makes it light, and stirring it makes it fine-grained.

A cake made with molasses or brown sugar has to be baked very slowly, as it burns easily.

Pie paste should always be made very stiff, as rich as you choose, but with as little moisture as possible.

Fruit stains on table linen may be removed by rubbing as soon as possible with methylated spirits.

To remove blood spots, moisten with cold water, then powder freely with dry starch. When quite dry, brush off the starch.

Never wash chamois gloves in hot water. Use cold water, and avoid soap if possible.

Clean soiled photos with bread-crusts, rubbing the surface lightly.

When the pores of the skin have become enlarged, wash the face morning and night with hot soft water, using cheese-cloth bags filled with bran and rubbed with castile soap to rub the skin with. Afterwards douche the face with clear, cold water. For oily skin, use a little borax in the washing water.

If stove-black does not adhere to the stove, try adding three or four drops of glycerine or molasses to the blacking, and you will find it an easier matter to blacken the red spots.

HALLOWE'EN.

When she threw her apple-parin' it jest made an "A" right slick—
Which is what my name begins with, an' I looked up at her quick,
An' she turned all red an' smily, an' she sort of caught her breath,
An' my heart begun to hammer till I thought I'd choke to death.
All the' games was played an' over, an' th' folks begun to dance,
When I sn'ly got my senses—an' th' sashay was my chance;
An' I didn't stop for manners—I jest held her mighty tight,
An' I sez, with no preamble: "I shall see you home to-night."
Then I had to step outdoors a spell, f'r air an' room to stand—
F'r she made no other answer than to sort of squeeze my hand.
But th' way it set me feelin'; . . . why, I knew, as clear as light,
That th' whole earth was created jest for this partic'lar night.

There's a moon as big's a barrel, up atop of Heartbreak Hill,
An' a little wind a-whistlin' to itself like, kind of still;
An' th' dead leaves an' th' cornstalks, an' th' frosty silver grass,
Are kep' shufflin' an' a rustlin' by the folks we can't see pass.
For th' air is full of witches, an' of whisperin' an' of spells;
An' th' potions they're a-brewin' make th' tinglin', spicy smells.
But th' whole kit an' caboodle couldn't muster sech a charm
As will be in workin' order when I take Her on my arm,
An' we start off home together; f'r she knows what's in my mind,
An' th' thing I'm going to ask her, when we've left the crowd behind.
An' it's Hallowe'en that's spunked me up to sayin' what I'll say. . . .
Things has cleared up, most amazin', sence that parin' made an "A."

—Inez G. Thompson.

GERMAN SCHOOL BATHS.

According to the London Mail, "every board school in Germany is provided with a well-equipped gymnasium and a 'brausebad' or douche. The latter is situated in the lower portion of the building, and during the winter the heating apparatus for the school supplies also the necessary water for the douche baths.

"In summer the water is heated by a gas stove containing several Bunsen burners. By the latter method the baths are ready for use in half an hour. Just as the times of instruction exercises and douche baths. The elder children receive three or four hours of physical training per week, and every child at least one douche."

"THE FARMER'S ADVOCATE" FASHIONS.



6124 APRON, 32 to 42 bust.

To be made with high or square neck, long or three-quarter sleeves.

The work apron that is really protective and practical is the one that wise women demand. This one is just as well adapted to the artist and the studio as it is to the housewife, and will keep the gown of either fresh and free from soil, no matter what the occupation of the moment. In the illustration, it is made of gingham, but many women like butcher's linen for the purpose, as it is durable, and grows handsomer with each washing, and plain colored linens and chambrays share the honors with the figured ones, and with percale or any one of the simple printed wash fabrics.

The apron is simply made, is full and gathered, and allows a choice of the high neck with collar, or a square one, and of three sorts of sleeves, the long ones with deep cuffs, the long ones with straight bands, and the three-quarter ones finished with bands. It consists of the yoke and the skirt portion, which is gathered and joined thereto. When the high neck is used, the roll-over collar completes it. The sleeves are full, and whatever the length or the depth of the cuff, they are gathered at their upper and lower edges.

The quantity of material required for the medium size is 9½ yards 27, 7 yards 36 inches wide.



6124 Girl's Dress, 8 to 14 years.

One-piece dresses are being much worn this autumn by the younger girls, and they unquestionably possess a great many practical advantages. This one includes a little yoke that can be of lace or embroidery, or contrasting silk, and which is trimmed to give the princess idea. In the illustration, it is made from one of the pretty plaid materials, with trimming of plain cloth in matching color, while the chemisette is of lace. Plainer dresses, however, can be made by using tucked taffeta for the chemisette, and the material of the dress for the bands, with some finish of soutache or other braid. For school and occasions of the sort, chiffon Panama cloths and materials of similar weight are much to be commended, and the plaids of the season are unusually handsome, while they are always becoming to the younger girls, and always satisfactory.

The dress is made with blouse and skirt joined to a belt. The blouse is tucked and made over a fitted lining, while it is closed at the back, and the

sleeves are trimmed after a pretty and novel manner. The skirt is cut in seven gores, with the trimming extended over the left front seam. This feature could be omitted, however, if something very simple is wanted, and the trimming be allowed to finish at the belt. The closing is made invisibly at the back.

The quantity of material required for the medium size (10 years) is 7½ yards 24, 6½ yards 32, or 4½ yards 44 inches wide, with ¼ yard 18 inches wide for the chemisette, ¼ yard 27 inches wide for trimming.

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.

HOW TO BE BEAUTIFUL.

You must suffer to be beautiful, according to a French saying, says a Paris writer. There seems to be some truth in the statement, if a lady's maid is to be believed. She has revealed the secrets of her mistress's boudoir, or, rather, torture chamber. The lady herself is now beautiful, but one wonders that she is still alive. For months she lay flat on her back on the floor, motionless; with her arms close to her sides, during several hours every day. This was, it appears, to improve her figure. During the rest of the day, for the same period of time, she sat on a high stool waving and rocking the upper part of her body backwards and forwards and from side to side unceasingly. By this process she is said to have acquired a statuesque throat and a sylph's waist. The lady's nose having a soaring nature was corrected and made Grecian by the constant application day and night for months of a spring bandage. One nostril was originally larger than the other, so she wore a small sponge in it for a year. Her cheeks have been filled out and rounded by injections of paraffin. Her ears for months were compressed against the side of her head by springs, while heavy weights were attached to the lobes to produce the required elongated shape which has been successfully achieved. Having suffered this complicated martyrdom for a year, the lady, as already stated, is now beautiful.

DRAGGING CHILDREN.

"I had in my charge at one time," said a prominent New York doctor, "a child who had almost lost control of the muscles of one of the legs, a difficulty brought on, as I firmly believe, by the habit the other children had of taking the little thing out with them and hurrying it along in order to keep up with the other youngsters with whom they were playing. They had strict orders not to leave the baby or to let go of its hands, and as a consequence it was dragged and pulled along in the most frightful fashion. I believe that a great many cases of rickets are brought on by this habit of pulling children by arms. It necessarily is a strain on spine and must be productive of unpleasant, if not dangerous, results."

He was a waif from the slums, says Harper's Magazine, having his first experience of the real country, through the kind offices of the Fresh-air Mission:

They gave him a new-laid egg at breakfast as a great treat, but, after one spoonful, he put it quickly aside, and devoted himself to the bread and butter.

"Why, Pete," exclaimed the matron in charge, "don't you like your egg?"

"No, ma'am," he replied deprecatingly; "it don't seem to have no taste nor smell."

The Ingle Nook

Not long ago a friend in town said, "Why is it that country girls and country women take such poor care of their skin? J— and M— were in today—just dear girls they are—but, oh, they looked so weather-beaten, and—old. The worst of it is they are both younger than I. When they went out I just flew to the glass to hunt for wrinkles, but, really and truly, I haven't one for every ten of theirs."

I had never thought about the question before, but perhaps what she said is true of a great many. If so, why is it true? No woman likes to look worn, and weather-beaten, and old before her time, and just a little care will do so much toward keeping the skin soft, and fresh, and youthful.

A few weeks ago in a prominent American weekly there appeared an article by a famous English physician, in which the statement was made that complexion depends wholly on health, and by no means on cosmetics or skin-foods of any kind.

It would be too daring altogether to quarrel with so eminent an authority as Woods Hutchinson, M.D., F.R.C.S., and in the main it stands without question that he is right; a good complexion, that is a good "healthy" complexion, simply cannot exist without good health, red blood, and a well-nourished body. At the same time, I think Dr. Hutchinson, in his zeal for the greater issue of the question, has overlooked a few things that count much to every woman who wishes an attractive skin.

No doubt what he says in regard to the use of "skin-foods" is true; that—since the skin is non-absorbent—they are practically useless. At the same time, every woman who has ever tried in the least to take care of her "pericarp" knows that there are certain emollients which do improve it. If your hands are rough and hard, try rubbing them three or four nights with glycerine and rose-water; or, if glycerine is too severe for your especial epidermis, with frostilla, and see how speedily they will become soft and smooth. There are probably many other preparations on the market which are just as good as these; and it may be taken as a rule that what is good for the hands is good for the face also.

Again, there is no denying the fact that a little protection will do a great deal towards keeping the complexion attractive. If we run about in the sun bare-headed, we must expect to become browned and weather-beaten; and, after all, there is no necessity for doing so; it isn't much trouble to put on a big straw hat on going out of doors—or one of those nifty little sunbonnets which sit just on top of one's hair, instead of coming down about the ears as the old-fashioned kind did. In winter, a chiffon or fine wool veil does much to protect the skin, and forms a comfortable screen against the biting frost as well.

A common saying is that tan is "becoming," and that it is a "good healthy color." The first of these statements is only true with limitations—tan may be becoming to young faces, especially if surmounted by dark gipsy-like hair—the second is not true at all. Mere tan is never of itself, in fact, a sign of good health, although the conditions which induced it may also have induced good health. It is due, on the contrary, to a mere darkening of certain pigments in the skin to form a covering to keep out the violet rays of the sun, which might otherwise do the body harm. While, therefore, tan may help to maintain health, it is by no means a sign of it. Any other covering would do the work as well.

You see, I speak feelingly on the subject of tan. May I add that it is not without reason that I advocate the theory that prevention is better than cure. During my trip by water this summer I acquired a hide (never call it complexion!) like mahogany, which has stuck closer than a brother ever since; and I don't like mahogany a bit, except in drawing-rooms. I have managed to get rid of the hardness, but the tan is obdurate. Lemon juice has proved very slightly effectual; so slightly, I fear, that no one but myself can notice the difference. Cannot some of you "help me out?" D. D.

A CANADIAN IN IRELAND.

Dear Dame Durden,—We have all enjoyed your trip to Quebec so much. You seem to have seen everything about it at just the same angle as I did. Would you like to come with us down past all those beautiful wooded shores until we come to the open sea? I believe you would like that too, even though you like to feel the land is near you. There is something very awe-inspiring in the sea

stately domains, and interesting ruins. Next south of Wicklow is Wexford, one of the best farming counties in Ireland. Driving along the country roads reminded us of some of our city avenues. The roadway is very level, and winds very often between avenues of trees. With all our beautiful trees we have nothing so stately as the beeches of Ireland. And then the hedges! No wonder the exile of Erin longs for a sight of the hedge-rows of his native land. Black and

Leinster. The marriage of Strongbow to Eva, daughter of King Dermott McMurrrough, is said to have taken place in the streets of Ferns, near the site of this castle. In another part of the town is St. Edan's Cathedral, built originally by St. Mogue, in 632 A.D. It contains his remains. Near St. Edan's is St. Mogue's well, and also the remains of an old Abbey. A short distance away, on the Rectory lawn, are the remains of St. Peter's Church, built by Dermott McMurrrough. The present rector, Canon Gibson, takes a great deal of pains to preserve everything of interest, and has written a history of his parish, which we found very interesting, because it contains in its lists of wardens of more than a century ago, not only the names of our own ancestors, but also those of many of our neighbors in the new world. Nearly everyone in that part of Ireland has some friend in Canada. One had a sister in Toronto; another two sisters in Essex Co.; another a son in Montreal, and so on.

Ferns is a typical Irish village. A few thatched cottages are left, but that style of building is fast disappearing. Our hotel was so quaint and comfortable. Each room might have been built by itself, and seemed to have a stairway, or part of one, of its own. To sit there amid its lovely old furnishings and listen to the ticking of the tall grandfather's clock, and see from the window the odd little donkey carts and the low-thatched cottages across the way, one might fancy one's self slipped back a century or two; but the honk of an automobile soon brings us back to the present.

I would like to tell you about Ennis-corthy, and the climb up Vinegar Hill, and historic Waterford, and lovely Cork, "on the pleasant waters of River Lee," and Blarney, with its wonderful stone, and Killarney, with its famous gap of Dunloe, and the purple splendors of its mountains, but my pen has run away with me already.

"ANOTHER TRAVELLER."

I have long wished to go to Ireland, and to England and Scotland, and "the Continent," and — — — — — I almost envied you your trip when reading your letter. Still, there are so many shorter ones, that must be delightful too. Have any of you ever been at the Kawartha Lakes, or at Lake Temagami? If so, I should like very much to hear about them. The pretty soft Indian names have fascinated me for so long that I think I must yield to their magnetism some day, unless advised otherwise—and it would be so provoking to go and be disappointed.

CHURCH MADE FROM ONE TREE.

According to a technical paper, a large Baptist Church that stands in the City of Santa Rosa, Cal., enjoys the distinction of having been constructed entirely from a single tree. Of course, that includes the woodwork of the structure. The tree from which the timbers, lumber and shingles were cut was a giant California redwood. A considerable quantity of the lumber was left over after the church building was completed. The building has a spire of 70 feet high; an audience room capable of seating 300; a parlor capable of seating 80; a pastor's study 14x20 feet; a vestibule and toilet-room.

IN THE VERNACULAR.

The girl had been three weeks in the employ of an artistic family, but her time had been by no means wasted. Her mistress was giving her instructions as to the dinner.

"Don't forget the potatoes," enjoined the lady.

"No, ma'am," was the reply. Will you have them in their jackets or in the hood?"

Uvedale Price once chose to stay so long at my house (said Samuel Rogers in his "Table Talk") that I began to think he would never go away. So one day I ingeniously said to him:

"You must not leave me before the end of the week; if you insist on going after that, you may; but certainly not before."

And at the end of the week he did go.



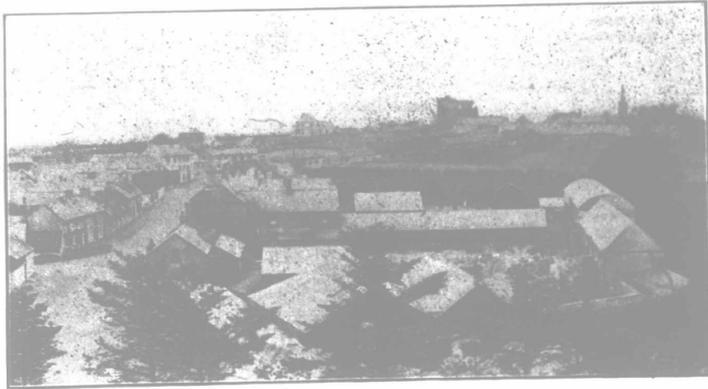
One of Ireland's Beauty Spots. Poolaphuca Waterfall, near Dublin.

when you find yourself travelling for days with nothing but "the blue above and the blue below," and one can scarcely realize the silence there is where there is not even a bird.

I am not going to try to tell you everything that happened in that beautiful week's sailing; it was quite uneventful as voyages go, except for the arrival in mid-ocean of a tiny passenger who had neglected bringing his wardrobe with him. This event turned nearly all the passengers into a Dorcas Society, and before his baptism he was provided with

white thorn and furze, blackberry, dog-briar and woodbine, Rose of Sharon, lady's-fingers and ragweed, blue and yellow dandelions, broom, and the beautiful Irish heather grow in a perfect riot of foliage and blossoms. These hedges divide fields of wheat, oats, barley, turnips, potatoes and pasture land, nearly all in a splendid state of cultivation. The landscape resembles a huge patchwork with embroidered seams.

A tower in the little town of Ferns had always been a sort of Mecca to me; my grandfather had climbed it when a school-



The Town of Ferns, Co. Wexford.

a varied wardrobe and a snug sum of money. But I must not stop by the way, because I want to tell you about a part of Ireland, and there is more to say about that than you have time to read or I to write.

We went south from Dublin past several fashionable watering places, and still south through the beautiful County of Wicklow, with its celebrated Vale of Avoca, where "the bright waters meet;" its picturesque glens and waterfalls,

boy, and I was always afraid it might fall down before I could go and do likewise; but there was no need to fear, because, although that was nearly a century ago, the old caretaker told us it was in exactly the same state of preservation now that it was then, and it looks quite as substantial as the beautiful hills you can see from its summit. This tower is part of an old castle said to have been built by Strongbow on the site of the stronghold of the Kings of

The Roundabout Club

Dear Clubites,—It is with a great deal of pleasure that I meet you this morning; nevertheless, I am not going to make you a long preliminary speech. I never did like preliminary speeches. A few bouquets are all right, but the sooner one gets to the matter in hand, it seems to me, the better; so, suffice it to say that I trust the Roundabout Club will be generally helpful. That it may be so, will, of course, depend very much on the efforts you, its members, take in its behalf.

And now to work. Last night, while sitting with my toes on the fender, and a British weekly in my hand, I came upon the following, written by an Old Countryman who had previously lived for ten years in North-eastern Ontario: "The Canadian cultivator is a glorified peasant-proprietor. Someone has said of him that, 'On the whole, he is more prosperous than his English brother, but he works a great deal harder, he has less amusement, and he drinks filthy tea.' And this about sizes him.

"He does not always confine his potations to tea but in the rural parts of Ontario the consumption of alcohol is very small. In the towns, the curse of alcoholism is prevalent, sometimes to a very great degree; but the country is free from it. The Canadian cultivator is not at all a bad sort, so far as my experience of him goes. He confines himself, and limits every thought and word, within a narrow circle, and he has many of the characteristics of the 'Jacques Grippe-Sous' of our neighbors, but this is not peculiar to the Canadian cultivator. The English farmer, of this neighborhood, at any rate, shows the same unpleasant traits. He has to work hard for his money, and he makes the most of his advantages at the great game of 'grab.' Many of the Ontario farmers have a great contempt for the young Englishman who comes to Canada to pursue agriculture, and it must be admitted that the latter deserves it, by assuming airs of superiority to which he is not entitled. 'The folk from the Old Country are not what they used to be,' I have often heard remarked. The Canadian cultivator breaks down early, and suffers from affections of the alimentary organs, in consequence of overwork, hurried meals, and an unwholesome dietary. He consumes largely of 'certain kinds of fritters and pancakes, buns, and tarts, which delight his palate.' Pork is his chief meat, and the tea, as aforesaid, his chief drink. The Canadian newspapers teem with advertisements of quack medicines of all kinds, and these form part of the stock-in-trade of every little village store. As a sportsman, so far as my experience goes, the Ontario 'farmer' is an ardent pot-hunter. I once made an expedition into the woods with a small party of these men. They shot, or tried to shoot game out of season, and they fished altogether for the pot. I watched one of them. The fish were rising in the neighborhood of his line in a deep bay at the mouth of a stream discharging into a beautiful lake. The woods around were tinged with the gorgeous autumn coloring. My fisherman was exasperated at the fish not taking his bait. 'Wish I had a pinch of dynamite,' said he. 'You wouldn't surely use it?' I observed. 'Wouldn't I!' he answered, with much gusto. One of the party, as the others expressed it, 'went and got himself lost.' He did not turn up before supper-time, as was expected, and great uneasiness prevailed in the camp. 'William,' said one of them solemnly to the brother of the absent one, 'you'll never see him again.' However, next morning I paddled my canoe across the lake, heard a hound, and descried the absent one contentedly walking back to camp. He had lost his bearings as night came on, but, finding himself in the neighborhood of a lumberman's shanty, he had spent the night there comfortably, while we did the worrying."

I have quoted at considerable length because, in the parlance of the editorial den, this is "interesting stuff." It is quite well written, and it makes points. Besides, it is amusing. It coolly takes the whole of Canada—immense Canada, into the corner of which the grand old

British Isles might be comfortably dropped—and judges it according to the evidence of one small, presumably backward locality; nor does it make any attempt to explain how long ago that ten years' sojourn came to an end. No allowance whatever is made for the marvellous growth in ideals and education of a new land. Whenever that "ten years" was, in whatever locality, we drank bad tea and ate pancakes; we were "narrow"; we were universal "grabbers," thinking only of money and our stomachs; and we had not one little vein of romance or love of the beautiful in our vulgar, stolid, sordid "make-ups," as evidenced by our thinking only of "dynamite" in the midst of the autumn maple woods. More than that, we made murderous assaults on the English language; we "went and got lost" occasionally. . . . And such as we were then, in one small township or less, we are now, indiscriminately, all over big Canada. . . . Isn't this "rich"?

At the same time, we must not shut our eyes to the fact that such conditions, such sordidness, such narrowness, may exist even yet in certain localities, or even among certain families living in the heart of neighborhoods otherwise as cultured and intelligent as the most fastidious might require. Nor must we smugly fold our hands on our bosoms, roll up our eyes, and flatter ourselves that, because we are not as "this Publican," we need expend no further energy in efforts towards that culture and intelligence which he lacks; such Pharisaism would, as a matter of fact, proclaim our want of both. The man of real intelligence never feels that he knows enough or can get deeply enough into the reasoning of things. Among all men is he the most unassuming, nor is his modesty affected. He is open of mind, thinks little of himself, yet is removed as far as the East is from the West from the "umbleness" of the Uriah Heap type. He realizes that he has a place to fill in the Universe, and that he must fill it to the best of his ability. He realizes, also, that there may be things about his work which he must learn, and that the sea of knowledge which he would explore, for knowledge sake, has never a farther boundary. In short, in a world so interesting, how can he find time to be narrow and self-seeking, or how can he dare to grow conceited?

Now, as the Roundabout Club of "The Farmer's Advocate"—a club which, we hope, will eventually find members all over Canada, from British Columbia to Cape Breton and Newfoundland—we should surely be able to do something towards giving an impetus to this never-ceasing, progressive movement towards the larger life. We have our plans here at headquarters; you may have some, too. If so, we shall be glad to hear from you. Indeed, we shall be glad to receive letters on any subject which may interest you. NEMO.

[Kindly address all communications for this Department to the "Roundabout Club," Farmer's Advocate, London, Ont. The Club will appear fortnightly.]

On the Popular "Young Man and Young Girl" Discussion.

It gave me great pleasure to read the article on "The Girl Question," from the authorship of "Penson," which appeared in your paper some time ago, and to see the subject revived by "One in Earnest," as well as by "Elaine" and "Clo." I also am interested and in earnest on this topic, and wish to add my few words of testimony. I was indeed glad to see the subject taken up by the fair sex. But, better yet, I think it would be, were those who have tasted of married life, to participate in discussions of this nature. What warnings to the hasty, or, on the other hand, encouragement, they might give to the bashful. Why are they so silent? Are they so enraptured in each other's love that they forget the outside world, or has the charm of love in their courting days passed away, and their hopes in realizing their ideal been dashed to fragments on the rocks of time? Is the young swain or the damsel with heart aglow with love to suppose that love is but a dream that will fade away after the honeymoon? Love is indeed serious. We look about us and what

we may not take cognizance enough of the happy marriages, we cannot help but see the many unhappy ones, while these same people must have been drawn together by love. Can you blame a young man, then, for pondering over these things before taking the step which may lead him to his fate? Well may one ask whether marriage has lost its sacred function, when you consider the numbers that are unmarried, and also those that are numbered among the unhappy marriages. Celibacy is becoming more common every day. It has been said that in San Francisco three-fourths of the male population were unmarried. These are alarming facts, and questions which need their solution.

The substance of Penson's letter—that of impressing upon the minds of the young people the great need of using more common sense in the selection and association of their companions, and, eventually, the choosing of a life-mate—was never more appropriate than at the present day, in the midst of a strenuous age, in which people wear out their lives in the mad rush after fame, wealth, and the timely inducements that this world can hold forth, and, for pleasure, seek the world of sport. There is no time to stop and consider what constitutes life in its entirety, and what true happiness may be taken out of it. We climb up the rough and stony road which leads us upward to the supposed heights of fame, failing to take notice of the beauty-spots along the way.

The most important period in a man's life is when he selects his life-companion. I heard a man say that there were two important events in a man's life: his birth, over which he has no control, and his marriage, over which he has control, if he chooses to use it. The paramount question is, "Will he be swayed by the mysterious power of what is called 'love,' and marry one which may not be suitable for his requirements, just because his heart yearned for this particular fair one, or will he use his reasoning faculties, and first decide on his wants along the line of a future partner, and then choose one after his pattern? Were he to use his reason thus before Cupid's darts have claimed him an easy captive, he would no doubt have much to be thankful for afterwards. Many a one makes a selection from his associates before he knows what is required to produce harmony, and thinks that because his love goes out to this particular one that this is the one and the only one which the gods have decreed for him, and at once endows his chosen one with all the qualities desired, whether she have those qualities or not, and while she may be far his inferior.

I agree with Penson's that there is nowadays too much nonsense, and not enough common sense practiced among the associations of the young people. I do not want to be too pessimistic. I believe in letting young people have a good time, but let these good times be profitable and uplifting. I believe, also, that considerable blame rests with the fair sex. We look upon them as the purer sex, and how can the standard of manhood be raised so long as woman tolerates the associations of young men whose characters may not be respectable, and who indulge in intemperance, tobacco and its kindred evils? Were she to use her divine powers of pure womanhood, and show independence and stability in the selection of her associations, and demand a clean and pure life from the one who seeks her love, better results would follow. Perhaps you infer from my words and admonitions that I have realized the hopes of my choice in a mate, and am now setting sail on the sea of wedded bliss. Not so, but I believe, or, at least, hope, that I have passed the critical period of a man's life when he is so easily overpowered by the instinct of youthful love, not that I think this instinct should be ignored entirely, and this divine spark of love be smothered, but rather that we should let reason guide the instinct.

Now, as to the qualities that a young man admires in a young woman. I think these qualities can be properly summed up in the one word, "womanliness." This embodies being refined, cultured, courteous, displaying kindness and love to all those about her. She must have an amiable, cheerful and winsome

disposition, be able to make the home a place of sunshine and rest, where the husband finds a heavenly retreat from the worries and turmoil of the day. She should have a good education, take an interest in intellectual culture, be a musician, and, above all, have a good knowledge of household science and dressmaking. She should also know how to practice economy. She must not be a flirt or a gossip. One of the qualities that I should insist upon is cleanliness and tidiness in her own appearance, as well as her surroundings in her home. And I believe that a woman can be dressed tidily under nearly all conditions, and do so quite economically, if she has some knowledge of dressmaking. She should be possessed of good judgment and common sense in her associations, for even the vilest of men admire a virtuous woman, and seek her love. She should show a spirit of independence towards the attentions that may be paid to her by young men, until she has found the one in whom she can confide her love, and even then restrain her outward expressions of love until proper relations with the man of her choice warrant it. What sensible young man cares for the girl who submits her love to him at once, without first taking time to investigate his integrity and character? Scott said, "The lover's pleasure, like that of the hunter, is in the chase, and the brightest beauty loses half its merit, as the flower its perfume, when the willing hand can reach it too easily."

Above all, she should be an earnest and devoted Christian, without which all her other graces would count for naught. Goldsmith wrote, "I chose my wife as she did her wedding-gown, for qualities that would wear well." The Christian's qualities are those that wear well.

As the former writers, I believe in having a high ideal. How would this ideal come up to the mark. "The ideal woman should have the faith of an Abraham, the patience of a Job, the obedience of a Peter, the love of a Mary, and the cooking qualities of a Martha?"

"TEDDIE."

[We are glad that so many of our correspondents look at this question as to whom one shall choose for a life-mate seriously. It is, indeed, no laughing matter, for, while marriage is a box into which one may step easily enough, the lid fits rather too closely for comfort if one happens to make a mistake. Can a worse fate be imagined than to be obliged to spend a lifetime, in the close connection of married life, with one whom one could not respect, or who might be even uncongenial? We are glad, too, that an agitation for more common sense in the conversations between young men and young women has been started. No one would put a bar up against good wholesome fun—such should be encouraged—but when conversation degenerates into mere giggling and silliness—often so silly as to be on the verge of sheer idiocy—it is surely time to call a halt. One need not necessarily be a "stick," who refuses to be an out-and-out simpleton.]

Another Opinion.

Dear Editor,—I am glad the "Girl Question" and the "Boy Question" is open for discussion in your most valuable magazine, and especially at this season of the year, when, during the winter months, people take more time to read and study. I was much interested in "Penson's" article, in Sept. 10th issue. I am of much the same mind about evening parties, and have often come from them feeling that it was all a vain waste of time; but let one or two start talking sound sense, and they will be sure to find many others just as willing. But why the timidity to do so? I think it is because of fear of ridicule or criticism that keeps people from expressing their minds on subjects which are of interest to all, yet are left entirely out of evening programmes at social gatherings, usually.

Now, as to what are the qualities a young woman most admires in a young man. In a few words, I think it is strength of character, with a noble life-purpose, and an aim to cultivate such a character and high sense of honor that his every action would be beyond reproach. This would include honesty, frankness and purity; reverence, with its corresponding kindness and greatness of

heart and mind, and love of home and home-ties; concentration, perseverance and adherence to duty at all times, especially when calls and entreaties come from all sides to leave duty for pleasure. I sometimes think marriages are unhappy because the two who have pledged themselves to each other do not truly love as their Maker intended that husband and wife should love. They perhaps become fascinated with each other's qualities, and think it love; and possibly if they searched their own hearts, would find they were not truly satisfied, and have not that perfect understanding of each other which is so necessary for their mutual sympathy and happiness.

PHYLLIS.

[Do you not think that the general reluctance of young people to take part in sensible conversation when at evening parties is due to the fact that so many of them, literally, do not "know enough," and are not interested in enough things to find such conversation interesting? The young man or young woman who does not read the papers, and so has no idea of anything that is going on in the world; who does not read books, and so has that great field of conversation cut out; who has no fad, such as photography, or sports, or travelling, or art, and so must be silent on these—is surely in a bad case, and has no resort except silence, gossip, or silliness. . . . What do you think?]

The Girl Question.

I have been reading with much interest your articles on "The Girl Question." Once before I took up my pen to reply to "Pensons," but laid it down again, thinking the subject too hard for such a youth as I am. I am only twenty-six, but have seen something of the world in both city and country; "have travelled some and experienced much." I am also one of those unfortunate university men whom "Pensons" charges with acting "silly" and talking "silly" in young ladies' company.

Now, while I agree with him that many of our young ladies are giddy; that many of them are shallow, I would not—nay, I could not—say that they all are. We have to-day as noble, as true, as whole-souled, deep-purposed girls as the world has ever known; girls whose lives are beautiful, deep and broad. I know them; I have met them, and have had glimpses into their lives. I cannot wish "Pensons" anything better than to meet some of them. They are not always found in public ways.

"Full many a gem of purest ray serene,
The dark, unfathomed caves of ocean
bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert
air."

No doubt this seems a sad thought to many. Girls, if you are sighing because it seems as if the world were never to know or recognize your true worth, be of good cheer. God has his purpose in you, and only asks you to be "sweet."

"Talk not of wasted sweetness, for sweetness never was wasted;
If it enrich not the life of another, its waters returning
Back to their springs, like the rain,
shall fill them full of refreshment;
That which the fountain sends forth
returns again to the fountain."

"Pensons," I, too, sometimes grow pessimistic; but we must not let ourselves do so. Let us revolutionize ourselves, and then we shall be able to see more of the true in others. Are we boys not to blame, too, for the girls' silly actions? There is no girl but tries to please the one she admires. If to please him, is she altogether inexcusable for endeavoring—too far, it may be—to please? "J. Mc." says "the girls spoil the men." That is a cold-blooded statement, surely. I fear some men are easily spoiled. Girls, why do you not defend yourselves against such fierce attacks upon your demeanor?

About ideals, "Pensons," I am not satisfied to hear you say that our ideals are so high. I am afraid too many of us get our ideals from the dime novel or the vaudeville. Are they ideals? No, they are fancies, phantoms, bewitching

delusions that vex us until we say, "Vanity of vanities." But, boys, come away from such false and fleeting ideals; come and live among the real. Let us rouse ourselves, rise and seek the higher, the nobler, the more refining society of the real, the true and the good. Yes, they are to be found, and all around you, too, if you can but see the noble in them. Do not look for perfection. "Who loves me, must have a touch of earth; he is all fault who has no fault at all."

As you suggest, "Pensons," I think it might help the girls if some boys were to tell us what they admire in girls. I have been delighted to hear what some girls admire in boys. I hope many will think seriously enough to contribute wholesome articles on these interesting subjects.

There is one great and grand quality which I am sure we all admire in a young woman, and that is "beauty." Girls, make yourselves beautiful, physically, mentally and spiritually, for he who does not admire true beauty has none of it himself.

"A thing of beauty is a joy forever." When the light of true womanhood shines through beautiful eyes, and sparkles on beautiful lips, we may understand the feeling of the poor, infatuated artist who said:

"And when her ruby lips touched mine,
They carried me to heaven."

Shakespeare says, "Women are God's flowers, and men his oaks."

"A flower grown wild is but a weed,
But a cultivated weed 's a flower indeed."

Then, girls, is it not a sin to let yourselves grow wild? Dress your hair becomingly, straighten your brows, polish your teeth, keep your cheeks and lips

rosy by preserving your health. Assist nature in developing a beautiful form, but, for mercy's sake, do not build up an artificial structure to catch a man, who, as soon as the honeymoon is over, sees his angel depart, leaving a twisted, misshapen mass of female humanity. Above all, let the light of a beautiful character shine forth from your every movement and your every feature; then will you be flowers, sweet with the fragrance of innocence and true modesty; "fair, yea and fairer than that word, of wondrous virtues."

We want no empty phantoms, no vexing delusions, nor silly flirts, but simple, noble, true, modest, innocent, beautiful, loving girls—girls "whose lives shall glide on like rivers that water the wood-lands, darkened, perhaps, by shadows of earth, but ever reflecting an image of heaven."
BOB JAMES.

Ontario.

"Do you believe in the higher pantheism?" asked Mrs. Oldcastle. "Well, no," replied her hostess, as she toyed with her diamond-studded fan, "I can't say as I do, although I can't see why some men wear them so low that they get all frazzled around the bottom."

Elsie—Bobby, when you grow up what kind of a wife are you going to marry? Bobby (promptly)—One that doesn't button up the back.

OPERA GLASSES, NOT GUNS.

If the small boy were taught to think of the suffering of the turtle or toad, of course the boy would not leave him on his back. If he thought of the starving birdlings in the nest, he would hesitate to kill the mother bird. Jeremy Bentham says: "Give your boy an opera glass, and send him into the woods to learn the patience, ingenuity and industry of birds." Let him learn to distinguish the song of one bird from another. Arouse his curiosity as to their wonderful habits, and give him the innocent delight which the study of natural history is sure to bring into his life and holiday pleasure. Teach him the cowardice of torturing helpless birds. Let him know their value as insect-eaters, and that we need a great many more birds in our woods and near our homes than we now have.

Insist that the coming generation shall realize the sin of cruelty and the bad tendency of any act which gives the question of life or death into irresponsible hands. Jenkin Lloyd-Jones says: "It is the boys I am concerned about more than the sparrows, and I earnestly object to this putting incipient murder into the hearts of our boys!" And the late Frances E. Willard's words, in a letter to Mr. Angell, are none too strong: "I look upon your mission as a sacred one, not second to any that are founded in the name of Christ." The man who shoots a thousand birds for anatomical or technical examination learns less than he who carefully studies the habits and thoroughly learns the song of one.

The much-abused sparrow has friends among naturalists, who declare him to be a useful insect-eating bird. Let us encourage birds to build about us by feeding them and putting up bird-boxes for their nests. Let us discourage, as far as possible, the destruction



Home of Alex. Gilchrist, Simcoe Co., Ont.

of birds, and endeavor to teach the small boy, and the large boy as well, that a live bird is much more interesting to watch than a dead one. Thus we may change his interest in birds from that of a savage to that of a naturalist. One good way to do this is to form Bands of Mercy in schools and elsewhere. If you will write to George T. Angell, 19 Milk Street, Boston, asking for information, you will receive full directions free of cost.

I. G. DANIELS.

Edwin Markham was one of the guests of honor at a reception given by a wealthy New York woman. During a conversation she said: "My dear Mr. Markham, I've wanted for years to meet you and tell you how I just love that adorable picture of yours—the one with the man hoeing, you know—and he taking off his cap, and that poor wife of his—at least, I suppose it's his wife—bowing her head, and they both look so tired, poor things. I have a copy of it in my own den, and the children have another in their play-room, and it's—it's—simply exquisite." "The Angelus," I presume you mean?" replied the poet, gravely. "Yes," doubtfully, "but we always call it 'The Hoe Man!'" "I am glad you like it, madam," said Mr. Markham; and he took an early opportunity of escaping from his sincere but mistaken admirer.

"I BELIEVE"—AN EVERY-DAY CREED.

I believe in my job. It may not be a very important job, but it is mine. Furthermore, it is God's job for me. He has a purpose in my life with reference to His plan for the world's progress. No other fellow can take my place. It isn't a big place, to be sure, but for years I have been molded in a peculiar way to fill a peculiar niche in the world's work. I could take no other man's place. He has the same claim as a specialist that I make for myself. In the end, the man whose name was never heard beyond the house in which he lived, or the shop in which he worked, may have a larger place than the chap whose name has been a household word in two continents. Yes, I believe in my job. May I be kept true to the task which lies before me—true to myself and to God who entrusted me with it.

I believe in my fellow man. He may not always agree with me. I'd feel sorry for him if he did, because I, myself, do not believe some of the things that were absolutely sure in my mind a dozen years ago. May he never lose faith in himself, because, if he does, he may lose faith in me, and that would hurt him more than the former, and it would really hurt him more than it would hurt me.

I believe in my country. I believe in it because it is made up of my fellow men—and myself. I can't go back on either of us and be true to my creed. If it isn't the best country in the world, it is partly because I am not the kind of a man I should be.

I believe in my home. It isn't a rich home. It wouldn't satisfy some folks, but it contains jewels which cannot be purchased in the markets of the world. When I enter its secret chambers and shut out the world with its care, I am a lord. Its motto is service, its reward is love. There is no other place in all the world which fills its place, and heaven can be only a larger home, with a Father who is all-wise and patient and tender.

I believe in to-day. It is all that I possess. The past is of value only as it can make the life of to-day fuller and freer. There is no assurance of to-morrow. I must make good to-day.—Charles Stetzel.

THE HABIT OF NOT FEELING WELL

Few people realize that their ailments are largely self-induced. They get into a habit of not feeling well. If they get up in the morning with a slight headache, or some other trifling indisposition, instead of trying to rise above this condition, they take a positive pleasure in expatiating upon their feelings to any one who will listen. Instead of combating the tendency to illness by filling the lungs with pure fresh air, they dose themselves with "headache tablets," or some patent specific "warranted to cure" whatever ill they think they are suffering from. They begin to pity themselves, and try to attract pity and sympathy from others. Unconsciously, by dwelling and expatiating upon their symptoms, they reinforce the first simple suggestion of illness by a whole army of thoughts and fears and images of disease, until they are unfitted to do a day's work in their homes or offices.

It is said that man is a lazy animal. We are all more or less prone to indolence, and it is the easiest and most natural thing in the world for young people to accustom themselves to lying down or lounging on a sofa because they think they are tired, or not well. Much so-called "invalidism" is simple laziness, fostered and indulged from childhood. There is a great danger that girls who are delicate while growing up, and lounge around the house and lie down whenever they feel the least bit out of sorts, will form a habit of invalidism when they reach maturity. How often do we see such girls "brace up" at once whenever anything happens which interests or excites them! An invitation to a reception or a ball, or any other pleasant social occasion, acts like a tonic. For the time being an instantaneous cure is effected. They are as well as anybody—until after the entertainment.—[Success.

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CHAPTER XXII.—Continued.

And the deuce of it was—see what a pair of haggard eyes and a score or so of bruises will do for a fellow!—he was not one bit of a simpleton to her any more. I believe, true, that blow and fall had sent him up instead of down, after all. He was a man glorious from head to foot, a sort of veteran, grave-faced, square-shouldered, plastered up though he was, with his maimed arm; he met her look straight.

"Miss Stingaree," said he, "I met with an accident. But on my word as a man, it was not drink. I never touched a drop."

"I'm witness to that," said I.

"Rob's word does not need any witness," said Mary, very softly, very gently, to us both.

Tears of triumph and joy sprang to Rob's eyes. And I, too—well, I was content, as I trudged home alone in the dark. She, who had been my learned lady, and above all flesh, was mortal, after all. How sweet to ecstasy, that thought might be to the mortal who had made her mortal,

a man can imagine. But Rob was too slow, and had been too deeply hurt once upon a time by her incisively-expressed disapproval of him. Once he would have thrown himself to earth with joy, just to touch the hem of her dress; now she was too far away for him to make the interpretation of her kindness one of common mortal accessibility.

Moreover, he was bound, and she was the lost glory of his dreams afar off in the sweet elysium of the things that "cannot be."

"My lady," said I, tramping on alone, "and may it all be as you wish, and it shall be, if Jim Turbine can help; but it was a proud heart you struck low in Rob Hilton—as proud as it was simple and humble, if I may so speak. And your soulful eyes will have to tell their story more than once before he'll look into them with any hope to find his heaven."

CHAPTER XXIII.

The Sunday-school Exposition.

It was wonderful to me, how the Baptist church at the River got Cuby Tee-bo to act the part of "Grief" in their big Sunday-school exposition.

The girl was troubled and lonely, and they began to take an interest in her to draw her in; perhaps they saw the only way was to ascribe a prominent and showy part to her; and she consented with quiet dignity, and acted her part with an éclat that

knocked the rest of them stupid with admiration and amaze.

For me, it is all a tender memory to me now; but we were a hawk-wild set all along the shore there, and it is not because I am making fun, the Lord knows, but if you would relate truthfully what takes place, why, you must just relate it, that is all; and, to my thinking, mirth is not anything light; it's just the fall of the raindrops where mighty clouds have rolled and lightnings clashed.

Anyway, I am but relating. Old man Trawles was the only one they considered fit to act as chairman, on account of his natural dignity and faithfulness in past attendance, besides having the only real tall silk hat anywhere in that region; and, perhaps most of all, the fact that he was going to marry Caroline Treet mantled him with a sort of general interest and sanctity.

And he consented to conduct the Sunday-school exposition just as readily as Cuby had to act the principal part in it.

"Now, Jacob," said Mrs. Treet, with a maiden blush at this use of her fiance's name, "when you git up thar' to lead the meetin' don't you go to reelin' off too cunnin' and long a yarn o' yer own; but tickle em up so's they'll allus be likely to put ye at the head. What will tickle 'em most is a few words from you, for what they'll come to see and hear is young folks play-actin', and especially how that dancin' sea-squall an' careem' flyin' jib of a Cuby Tee-bo

'll look actin' out a lesson in Scripture. Say no more, for although I know the mericle o' the grain o' mustard seed, yet I have to own up to you here an' now—an' seek f'rgiveness of I need ter be f'rgiven—that I could as easy cry as laugh."

"The sayin' is, 'Whosoever will,' Car'line," said sweet little Mrs. Skipper, who was also making a call at the house of the bride-elect. "I've heerd that the synod refused to help keep up the meet'n-house down thar' any longer if they didn't make 't least one convart a year."

"Ef they knew Cuby," said Caroline, speaking from a muse of simple meditation, "they'd ought ter allow a five-year lease jest on makin' a convart out o' her alone, ef the wa'n't no other dippin' in all that len'th o' time, I mean. But I guess it won't git so fur as that. What Cuby wants ter do is ter show off her smartness. But don't speak the word; f'r I hold by the grain o' mustard seed all the same, an' nobody's a-goin' ter rip the mericles out o' my Bible. Whilst I hold by it all, I'm plum firmer on them than I be on ary other thing."

"It don't need any mericle to save you, Car'line," said her betrothed, gazing complacently upon her.

(To be continued.)

"You have three pairs of glasses, Professor." "Yes; I use one to read with, one to see at a distance, and the third to find the other two."

Current Events.

Central Europe last week experienced the coldest weather since 1866.

Two rich silver strikes have been made within the past fortnight on the Montreal River.

Eleven hundred persons were killed by the recent typhoon near Changchow, China.

The first school of aeronautics in the world has been established at Columbia University, N. Y.

Seventeen Suffragettes were sentenced to terms in jail in London last week because they refused to pay fines for inciting disturbances.

Prince August Wilhelm of Prussia, fourth son of Emperor William, was married last week to the Duchess Alexandra Victoria, of Schleswig-Holstein.

The Government at Pekin is about to deprive the Dalai Lama of all civil powers, and restrict his authority to religious matters in Thibet and Mongolia exclusively.

The Mad Mullah has declared his intention of making war in British Somaliland in the early future. Several regiments of British troops have been despatched to the spot.

A proposal to establish telegrams at a penny a word throughout the British Empire, will again be advanced at a meeting to be held in the Royal Colonial Institute on November 10th.

Many persons lost their lives during the forest fires in Michigan last week. Forest fires have also destroyed an incalculable amount of timber in Pennsylvania, New York, and Manitoulin Island.

A BOY'S COMPOSITION ON WHITTIER.

"Mr. John G. Whittier was the son of his father and mother, John Whittier, who was a Quaker, and that is how he got to be a Quaker. Quakers do not fight so he had a very dull boyhood on a farm where he milked cows in a barn without no doors from which he got a delicate constitution although he lived to be eighty-five. He did not like farming and was not much good at anything so he thought he would be a poet. His first poem was wrote and published unbeknown to him and he did not know anything about it until he saw it in a paper printed by Wm. Lloyd Garrison who jumped into a buggy and rode out to the Whittier farm to see who had wrote a poem like that. This made Whittier resolve to write more and better poetry and he went to an academy in Haverhill to learn how to do it. He made shoes to pay for learning to be a poet. Then he went to Boston and was nothing but a poet from that time on. He was an anti-slavery man and nearly got mobbed and egged and he wrote poems on everything that happened to him. He was a very calm and peaceful man and he never got married. His chief poem was 'Maud Muller.' He made up most of his poems out of his own head but poems like 'The Barefoot Boy' did not come out of his own head entirely. He wrote thousands of poems and said afterward he wished he hadn't wrote so many. I guess most folks when they get to be eighty are sorry for lots they have done. Whittier has been called our greatest American poet ex-celled Longfellow. No one seems to cepting Longfellow. No one seems to have taken their places but Ella Wheeler Wilcox who is the best known of our lady poets but she does not write the same kind of poetry Longfellow and Mr. Whittier wrote. This is said to be because the American thought is changing and folks like even their poetry to be different from what it used to be. Whittier was a 'born poet' so it was not his fault. This ain't so of all poets."

A WILD-FLOWER QUEST IN THE FROZEN NORTH.

A paradox of the arctic is the sledge and dog-team quest of wild flowers. Not into the floral bloom of the well-watered, heavily-timbered Dawson, Yukon country, or luxuriant south-eastern region, but to the bleak, timberless Northwest, where summers are generally given to fog and rain, does the quest lead.

Seward Peninsula, which is north-western Alaska, covers more than 22,000 of Alaska's 600,000 square miles. In this area, inseparable in the popular mind from perpetual ice and snow, grow in riotous profusion about 167 varieties of wild flowers and seventy-five different kinds of grasses, while fern, sea, and lichen mosses are without end.

Few are the wild flowers of California or the Middle States that have not counterparts in the Nome tundra and inlying hills, besides many species unclassified and indigenous to the frozen North.

Where has Flora such a bed as the tundra? Running parallel for miles with the beach, the tundra stretches back from Nome four or five miles to the foothills, to be lost in the Saw-tooth Mountains, in whose shadows nestle violets, which recall with a sigh the remoteness of far-famed Parma. The tundra is decayed vegetation. Scrape off the surface, and rich black soil is revealed, soil that lies in varied depths upon fields of solid ice—the unmeltable ice of centuries. When wet with incessant rain or melted ice that oozes up as the continuous summer sun burns down, the tundra is a spongy, dangerous bog. Many is the "musher" or horse crossing the country that has been swallowed up in its slimy embrace. Everywhere the tundra is broken by natural lagoons, and of late by man-made ditches in the interest of mining, for there is not a foot of the tundra that is not staked!

In dry seasons, as was the summer of 1906, the tundra crackles under foot like burnt paper. Its chief ingredient is reindeer-moss. Wet or dry it is Flora's domain.

Owing to heavy snowfalls and deep drifts, this unsheltered, unforested background of our most northerly seaport—Nome—yields tardily to spring's wooing. To learn the haunts of the earliest flowers and pluck them from their ice-beds before they cease to bloom, one must have lived three years in the Peninsula; in the vernacular of the country, thrice seen the ice "come in" and "go out."

Long before Jack Frost removes his fetters from Behring Sea—for these arctic waters are hermetically sealed eight months of the year—and while the snow is sweeping in avalanches down the mountainsides, whirling through creek and river beds in mad, joyous dash to summer seas, many of the wild flowers blossom and are no more. Their life is brief as some of the most brilliant butterflies.

The flower-hunter who would gather spring's first blossoms must be off with sledge and dogs not later than the middle or last of May. Often so perilous is their abiding-place that sledge and dogs are abandoned on the trail to coquet with the snowbirds, while the hunter wades hip-deep through miles of slush and water.

One of the hardest, most enthusiastic flower-hunters of Nome is Mrs. Carrie Power, who aspires to do for the flowers of the arctic what a similar ardent Nature-lover has done for the flowers of Colorado. That there is no place for petticoats in an early flower-hunt, Mrs. Power avers. The prime requisites for comfort and expediency are hip rubber boots, plenty of blotting-paper, and a substantial lunch. "As an appetizer and a tonic there is nothing to excel an arctic dog-team wild-flower hunt."

Many of the earliest spring flowers are so saturated with moisture absorbed from their icy beds that they require immediate pressing, and much blotting-paper goes limp in the process before they are ready to be put in a book and tucked under the sledge-seat, preparatory to the dog-team "mush" back to camp. When this excessive moisture is thoroughly dried out, the color of the flower

"Mush" to go; to travel. Derived from French marcher, used by Canadian dog-drivers. Corrupted by American miners to "mush-on."

is often radically changed, giving little trace of the glorious hue it displayed when, pulsating with the sap of the arctic, it basked in a sun that never goes to bed during four riotous months. The first flower to greet the lonely prospector, miner, or "musher" in his weary trudge across hills of snow and ice-crusted divides, is the "star-of-day" (*Pulsatilla patens*). It grows among the rocks, and shows a single bright blue flower—with numerous black stamens, but entirely devoid of calyx—atop a slender stock which springs from a brown stump. The buds are not unlike tiny balls of wool, while the entire plant is covered with fine, silky white hairs. Half-way from the base of the flower three deeply-lobed leaves form a whorl. From the flower's white heart comes the name—"star-of-day."

Another of the earliest beauties is bird's-eye, common to many of our States. When the snow vanishes, it blooms in the dry knolls of the tundra. Every color of the rainbow is the bird's-eye, from pure white to deepest lavender and warmest pink, and in growth is not unlike the mustard-plant, the stalks varying from six to ten inches in height. It grows largely among scrub willows and in sheltered places along the creeks, and blossoms throughout the entire season.

A less beautiful but fragrant blossom which precedes the "star-of-day" in fruition is the Mayflower. In warm hollows along the creeks beyond the tundra, and occasionally on the edge of the tundra on the beach line, close search will disclose it toward the waning of May. It grows from a bulbous root, stands erect, is about four inches high, and has a cone-shaped head. The flowers are a muddy white, and cluster upon a thick reddish stock, with a single leaf two inches below the flower-head, and a second leaf at the base of the stalk. The short, pointed leaves of dull red completely encircle the stem, and the entire plant is covered with a white lint or wool. It is a curious fact that even as Nature provides the native dogs with heavier coats in winter, so are many of the first flowering plants covered with a protecting lint, wool, or hair.

There are seven varieties of anemone. On the beach, in the foothills and tundra back of Nome, Mrs. Power, who came into the country with the gold stampede of 1900, has discovered six species, unclassified and unknown to botanists. Like the anemone of the Sierra and Rocky Mountains, these spring beauties of the arctic love the cold. With frigid passion they are wont to burrow their way through banks of melting snow. The yellow and white flourish along the north bank of Dry creek and the sides of the hills, while several other varieties are found on Anvil Mountain, at whose base is the creek from which was taken the Peninsula's first great gold find.

The most beautiful species of anemone grow in great mats upon dry rocky sides of the mountains where soil is scanty. Severed from its native fastenings, a two-foot mat filled with hundreds of blossoms has been preserved for weeks simply by laying it upon moist ground. The flower of the finest arctic anemone is one and a half inches in diameter, with petals varying in number from six to nine. In color it is pure white, with numerous yellow stamens, while the calyx is green, and spreads into eight-pointed stars. Each section of the star is covered almost to the point with brown hair. The flower rises on a slender stem three inches from a mat of dead leaves. The entire plant is gummy, and when crushed emits an agreeable resinous odor.

All over the hills and marshes grow many varieties of buttercups, or cow-slips, and the gathering of them for the herbarium calls not only for rum boots, but the hazard of dangerous slips into the slimy, spongy tundra.

At the same time the marshes are regal in iris bloom. So luxuriant is its growth throughout Alaska that it is being advocated for the Territorial flower. In shape it is similar to the iris of California, grows to a height of two and a half feet, and the diameter of the flower is from four to five inches. It is very fragrant, and in color runs the gamut from deepest to palest purple and varied tints of yellow.

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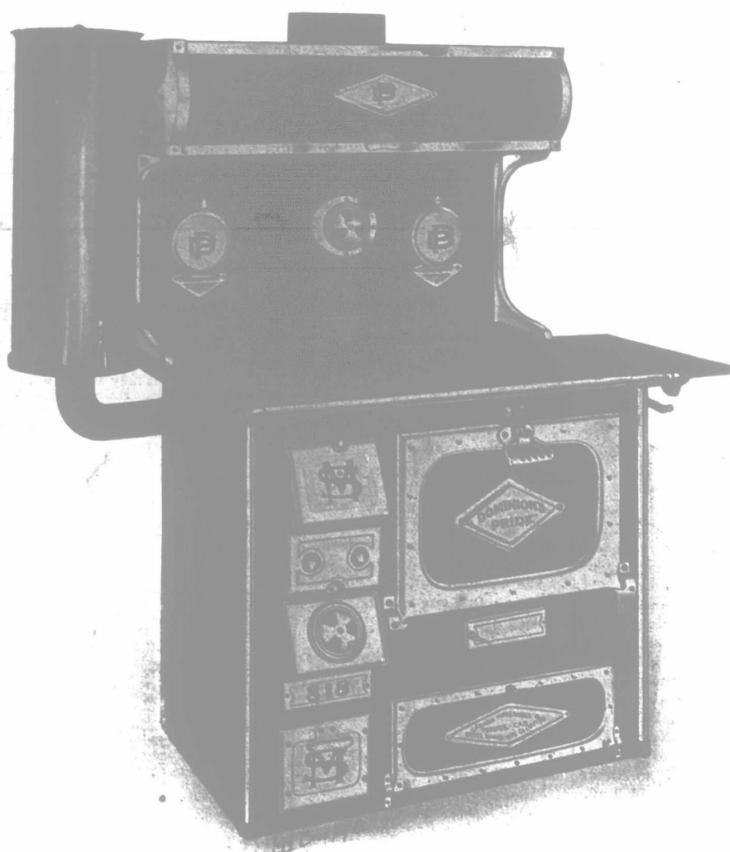
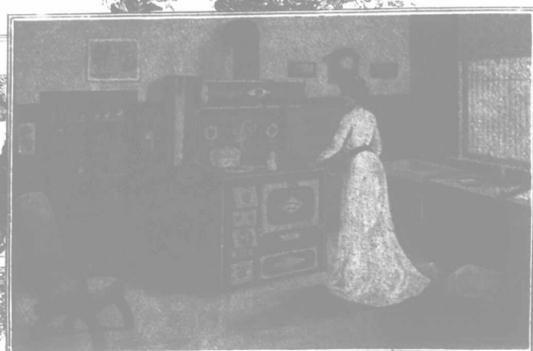
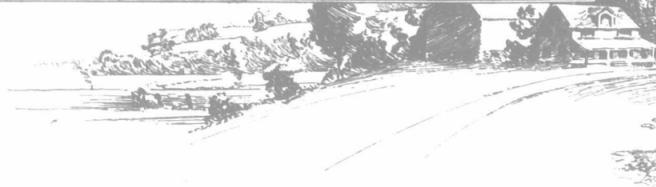
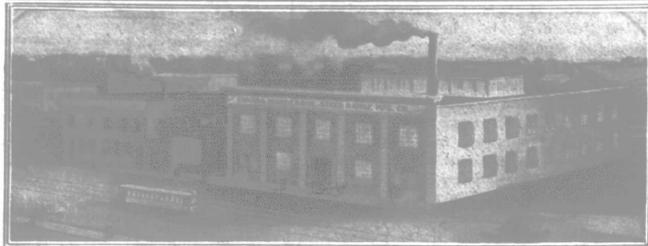
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The climax of Nature's irony in the arctic is the cotton-plant. Wherever cotton blooms, declares the miner, ice is not far below. One may trudge for miles through fields of cotton, the white, silky tops swaying defiantly in the arctic breeze. The blossom is silky, dainty, illusive as the down of our own yellow dandelion on its way to seed. From June until late August the tundra is white with the cotton-plant. Unlike the cotton of the Southern States, the fiber is short and soft, having more of the texture of silk than of cotton. The cotton-plant will, in all probability, some day be the means of developing an Alaskan industry giving employment to thousands. To-day, however, the cotton-fields are purely decorative—a splendid sweep of immaculate bloom in a bleak, timberless landscape

guarded by hills ever hung in veils of deepest purple. In great bouquets it is occasionally met in a miner's shack, while not a few housewives gather the cotton for pillow-filling.

Throughout the cotton-fields flowers bloom in abnormal splendor, as becomes a country in which the sun shines continuously during summer's voluptuous reign. It is an intoxicating joy for the flower-hunter to gather great armfuls of purple larkspur, bluebells, monk's-hood, primroses, sweet peas, beautiful purple and red asters large as the most cultivated, lilies of the valley, baby-breath, yellow arrow, sage-rose, pink and white straw-flower, gentians of many hues, arctic geranium, crimson rhododendrons, and giant fireweed, all growing on the hillsides—to enumerate further is to reproduce a florist's catalogue.

Never have I seen forget-me-nots like unto those of the arctic. With stems the length of American Beauty roses, their pastel coloring of baby blue and sea-shell pink recalls the skill of French millinery rather than nature in its perfection.

Often the sun beats down fiercely on the flower-gatherer, and clouds of mosquitoes of abnormal growth threaten to force one to retreat, when suddenly from over the tops of purple-veiled hills sweeps an icy breath—a veritable blast from the north pole, to which the flowers hid defiance, but before which the mosquitoes magically vanish.

The one inharmonious break in the solitude of an arctic flower-hunt—the one recall to civilization—is the occasional chortle of the "chesty" little logging-engine of the Nome-Arctic Railroad,

which crosses the tundra from Nome on its way to the Kougarok country, to which it has just laboriously gained access. Its ribbon of steel, like the inflated yellow canvas pipe which brings Nome's water-supply from Moonlight Springs—a natural geyser in the heart of the mountains—is a compass for the chechako, the tenderfoot. To stumble upon a leak in a Moonlight Springs pipe and slake one's thirst in the good old primitive way is not unlike encountering an oasis in a desert. For mining, drinking, or domestic use, water is one of the Northland's scarcest commodities, a positive luxury, which retails at twenty-five cents a five-gallon can.

Moving flower-gardens are the Nome-Arctic freight-cars as evening brings back to Nome the track-laborers, miners, hewers of wood and carriers of water, with

an occasional tourist. Every man from boss to super, has a basket or tin can filled with wild flowers, plucked by the stem or uprooted with the soil for transplanting.

In August, when blue- and salmon-berries ripen in the reindeer-moss, Eskimos are everywhere with sealskin leather pails, their gay-colored parkas, the hood with wolverene fur border, adding a picturesque color-note to the chiaroscuro. The arctic blueberry is richer, more delicious, than its kindred of the States, while the salmon-berry is an esthetic delight as it lifts its royal yellow fruit from a bed of autumnal-tinted leaves of wax-like texture. American housewives combine the blue- and salmon-berry into a delicious preserve. The natives bury them in the ground, marking the place with a cover of willows. There they freeze, and are taken out as needed, and eaten with seal-oil.

There is no subsoil in Nome. It has to be made from beach sand and tundra decay. Pathetic are the attempts to grow flowers or vegetables, but where there are women there will be flowers. Nome has scarcely a cabin or shack without some pretense to a window-garden. They are generally set outside and raised from the ground to escape contact with ice beneath or the malamutes (the sledge dogs), which prowl about in summer.

At a midsummer meeting of the camp's women's club—the Kegoayah Kozga owns its own club-house—the tea-table was radiant with pansies and mignonette raised from seeds in three weeks, while the walls were banked with the purple larkspur and monk's-hood of the tundra.

On the shore of Behring Sea, I was wont to linger in awe and wonder before a cabin whose large many-paned window was literally curtained with nasturtium-vines in gorgeous bloom.

"Four weeks ago," said the Norwegian mistress in proud, broken English, "I planted the seeds in the tin cans you can't see to-day for the bloom."

Unique was the garden encountered at Chenik on Golofnin Bay, eighty miles from Nome. A native skin boat had been drawn up on the bleak beach, filled with sand and tundra soil, and covered with window-glass. There Molly Dexter, the Peninsula's most famous and beloved Eskimo, raised from seed, not only flowers, but radishes, lettuce, and celery, for the road-house over which she presides as English-speaking landlady and unrivaled Eskimo cook.

Forging into the interior, down Solomon, Fox, Fish, or Neukluk rivers, with every hillside ablaze in giant fireweed and crimson rhododendrons, into the land of fir and cedars, where shacks of canvas, tar-paper or driftwood give way to picturesque log cabins, the eye revels in roof-gardens. Rare is the cabin whose roof is not covered with floral and vegetable growth.

I have seen many a miner thrust his hand out of the cabin window or door and pluck from his roof-garden radishes, lettuce, or onions for the morning or evening meal, while the flowers peep in window or door.

The demise of arctic bloom is as sudden and complete as its birth. There is no Indian summer, no autumn, as we know it. Long before the last boat has left the roadstead for the States, and the ice has begun to gather in Behring Sea, not a trace, not a hint of Flora's coquetry is to be found in all Jack Frost's kingdom.—From "Circle."

AN EFFECTIVE THREAT.

Sir William Lely, for a sum agreed upon beforehand, painted a rich, ugly, and miserly London alderman, who, upon the completion of the portrait, bagged over the payment for it. "Well," he said, finally, "that's all it's worth, and all I shall give for it; and if you refuse it will lie on your hands." "Not it," replied Lely; "I can sell it for twice the sum you agreed to give for it." "Sell it! To whom can you sell it? It is like no one but myself." "Just so," replied Lely, "and, therefore, when I draw a tail to it, it will make an excellent monkey." This threat was effective. The alderman paid for the picture its full price.

I wasted time, and now time doth waste me.—Shakespeare.

A MISERABLE WIFE.

"Yes, professor, I am afraid that soon I shall have to rent or sell the farm. My wife is so miserable. I cannot carry it on without hiring, and hiring eats up all the profits."

I looked at the speaker admiringly. He was about fifty, and as robust as a man of thirty. His whiskers were neatly trimmed, showing a full red cheek. He wore a jaunty hat and natty cut-away coat, and below his vest hung a silk fob and heavy gold seal. I was proud of him. He was such a perfect picture of the New York gentleman from the rural districts that I wanted to imprint his picture on my memory.

"So your wife is miserable?" "Yes, kinder droopin', with a dry cough and no ambition. She jest kinder drags around the house and looks so peaked and scrawny it gives me the blues. It does, I swan if it don't."

"Naturally weakly, wasn't she?" "She! Oh, no. When I married her she was the smartest girl on the creek. She used to work for father, and the way she made the work stand around took my eye. She was a poor gal, and her industry got her a rich husband."

Here he carelessly took out a gold watch, looked at the time, put it back and adjusted the silk fob on the front of his nicely-fitting trousers.

"So she did well getting married on account of her industry?"

"Why, of course; she was getting only \$2.50 a week, and she became mistress of a farm."

"Excuse me; but how much are you worth now, confidentially you know; I am a scientific man, and will never use such facts to your injury with the assessor."

"Well, professor, I could crowd \$50,000 pretty hard."

"That is good. How long have you been married?"

"Thirty years next Fourth of July. We went down to Albany on a little teeter, and I proposed the match and Jane was willin'."

"How much do you suppose you have made in these thirty years?"

"Hum—um—lemme see. I get the Davis farm the first ten years, then I run in debt for the Simmons place, got war prices for my cheese, and squared up both places. Well, I think I have cleared up \$30,000 since we spliced."

"Very good, indeed. And your wife has been a great help to you all this time?"

"Oh, you bet. She was a rattler. She took care of her baby and the milk from twenty cows. I tell you she made the tinware flop. Why, we have had four children, and she never had a hired girl over six months in that time!"

"Splendid! And you have cleared \$30,000 in that time?"

"Yes, easy."

"Now, how much has your wife made?"

"She, why, darn it, professor, she is my wife."

"I know it. But what has she made? You say she was poor when you married her. Now, what has she made?"

"Why, by gum, you beat all. Why, she is my wife and we own it all together."

"Do you? Then she can draw on your bank account? Then she has a horse and carriage when she wants them? Then she has a servant maid when she wants one? Then she rides out for her health, and has a watch and chain of gold as you do? Is that so?"

"Professor, you must be crazy. Nobody's wife is boss in that shape. Who ever heard of such a thing?"

"Now, look here. You said she did well in marrying rich, and I cannot see it. If she was getting \$2.50 per week when you married her, and had saved her wages, she would have had \$3,600. If she had invested it, she would have had \$5,000. Now you tell me she is broken down, used up and miserable, and looks so bad she makes you sick, and she has no money, no help, and will get probably nothing but a Scotch granite tombstone when she dies?"

"Professor, if you was a younger man, I would lick you quicker'n a spring lamb can jump a thistle."

"What for? I am stating this case fairly, am I not? Your wife is no longer young. She is no longer handsome. Her hands are as hard as a local editor's cheek, and she has stooped over

a milk-can until she has a hump on her back like a peddler."

"Shut up, will you?"

"She has raised four children. One of them is at college. One is taking music lessons at Boston. The other two are teaching school. She is at home alone, going around in a treadmill life which will end in a rosewood coffin and a first-class country funeral."

"Stop that, professor, will you?"

"While you are still a handsome man, with just enough gray in your whiskers to make you look interesting. No doubt you have been thinking of some nice young girl of eighteen who would jump at the chance to marry your thirty cows and twenty acres of hops."

"Professor, I won't stay here if you don't let up on that."

"And your wife does not look well in that new Watertown wagon, so you take your hired man and neighbors' girls to meeting. Your wife never goes anywhere, so you do not get her a watch like your own, nor a silk dress, nor a pony that she could drive, nor a basket phaeton that she could climb into without a ladder. She never says anything, so you have not got her a set of teeth like your own gold and rubber, but she has to gum it till her nose is pushed up into her forehead, and her face wrinkles like a burned boot. She never goes out, so she does not dye her hair as you do yours, but it looks like a milk-weed pod gone to seed. She has to work in the kitchen, so she gets no nice toothpick shoes like yours, but goes thumping around like a sheep in a dry-goods box."

"Darn my skin if I don't—"

"No, you won't; you will just let her work right along, and then you will marry some high-flyer who will pull every hair out of your head, and serve you right, too."

"Professor, for mercy's sake do stop."

"When you know, and I know, that if your wife had a chance to rest, and had nice clothes like other women, she would be one of the handsomest women in the town."

"I swan I believe it."

"And, old as she is, if you were to get out the carriage next Sunday, and drive around with the colts, and tell her you wanted her to go to meeting with you, she would actually blush with pleasure."

"Darned if I don't do it."

"Then, Monday, if you were to tell her that you were going to hire a girl, and that she must sit in the sitting-room by that new nickel-plated coal stove, and work on that new silk you are going to buy her—"

"Professor, that's me."

"And then hand her a nickel wallet with steel clasps, and with five nice new twenty-dollar notes in it, and tell her to do her own trading after this, because you have got tired looking after so much money."

"I will, as sure as I live."

"And when the tears start in her eyes, and the same old blush comes out that you thought was so nice when you went out that teeter to Albany, if you would just kiss her—"

"It's all right, professor."

"Then, my friend, I would begin to think she had made something by marrying a rich man."

"You're right, old man."

"Then I think you would no longer have a miserable wife. Then you would no longer want to rent or sell the farm, but would be showing the mother of your children how much you respected her for her life of devotion. Then she would know that she was a partner in that \$30,000. Then, if you made your will all right, and she had a good rest, I think she would some time be an eligible widow."

"Think so, professor?"

"I know it. Woman is a plant that wants sunshine. You have been leaving your wife in the shade too much. She has lost her color. She has given up all hope of admiration and love, and is only waiting to die and get out of the way. Suppose you were treated so?"

"What, me! I am all right."

"Yes, I know. Women pity you because you are tied to a sorry-looking wife. Foolish old maids and silly girls whisper behind your back what a nice looking man you are, and what a stick of a wife you have; and you are just soft enough to wear tight boots, and oil what little hair you have left on the top

THE GOVERNMENT AND ZAM-BUK.

Survey out from Fort William Takes this Wonderful Balm.

Zam-Buk, the favorite household balm, is now adopted as "The Doctor" by leading parties in surveying various parts of the Dominion lands.

Mr. Henry Hall, writing from Fort William, says: "Having proved how beneficial Zam-Buk is in cases of cuts, skin injuries and diseases, I determined to keep a supply handy. Being engaged to go on a survey, I thought it would be a most useful thing to take along. I obtained a supply in Fort William, and very well it was I did so. I may say that pretty nearly every day it was called into requisition by one or other of the party for cuts, bruises, burns, or some injury or other. It is wonderful how quickly Zam-Buk takes the soreness out of cuts, burns, bruises and injuries, and on our survey it earned golden opinions from all who had occasion to try it. I have found it very fine for skin disease, and I can strongly recommend it as a household balm."

Mr. Lascelles Scott, one of the leading Government analysts, says: "I have no hesitation in certifying the entire purity of Zam-Buk, which, in my opinion, is excellently adapted for skin injuries and diseases."

Zam-Buk cures cuts, scalds, burns, bruises, eczema, scalp sores, ringworm, ulcers, abscesses, chapped places, cold-sores, blood-poisoning, chronic abscesses, etc. As an embrocation, it relieves rheumatism, neuralgia and sciatica. All Druggists and Stores sell it at 50 cents a box, or, from Zam-Buk Co., Toronto, for price, 3 boxes for \$1.25. Send one-cent stamp for dainty sample box.

Consumption Book



FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma, or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case hopeless. Write at once to the **Yorkerman Consumption Remedy Co., 725 Rose Street, Kalamazoo, Mich.**, and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

WOMEN CURED AT HOME!

Women's disorders always yield, from the very beginning of the treatment, to the mild but effective action of **Orange Lily**. Within two or three days after commencing its use the improvement becomes noticeable, and this improvement continues until the patient is completely cured. **Orange Lily** is an applied or local treatment, and acts directly on the womanly organs, removing the congestion, toning and strengthening the nerves, and restoring perfect circulation in the diseased parts. In order to convince all suffering women of the value of this remedy, I will send a 35-cent box, enough for ten days' treatment, absolutely FREE to each lady sending me her address. **MRS. F. V. CURRAN, WINDSOR, ONTARIO.**



For proof that fits can be cured, write to **Mr. Wm. Stinson, 134 Tyndall Ave., Toronto, Ontario.** For pamphlet giving full particulars of simple home treatment, 20 years' success. Over 1,000 testimonials in one year. Sole proprietors: **Trenches Remedies, Limited, Dublin.**

FITS CURED

For proof that fits can be cured, write to **Mr. Wm. Stinson, 134 Tyndall Ave., Toronto, Ontario.** For pamphlet giving full particulars of simple home treatment, 20 years' success. Over 1,000 testimonials in one year. Sole proprietors: **Trenches Remedies, Limited, Dublin.**

A Clear Complexion

Some Valuable Pointers on the Best Way to Relieve Skin Troubles.

Thousands of people have looked for a long time—in vain—for a sure cure for skin trouble. Some suffer from chronic pimples and blotches, while others are terribly afflicted with itching eczema, psoriasis and other torturing diseases.

A cure has now been found—a cure so simple that we want every sufferer to hear of it. The D. D. D. Company's announcement on this page tells about this cure, which has proved so effective in thousands of cases. Read their remarkable offer.

The D. D. D. Co. makes this offer in order to prove positively that their remedy will instantly relieve the itch, and soon give an absolutely pure complexion.

This remedy, known as D. D. D. Prescription, is the discovery of the eminent skin specialist, Dr. Decatur D. Dennis, and, after a careful investigation, and reading of reports from eminent specialists, as well as a study of actual cases, we must admit that at last the true cause and cure of skin diseases has been found.

We hear that hospitals in every part of the country where rich people go to be treated for skin trouble, are now using this remedy. What seems most remarkable to us about this matter is that the D. D. D. Co. offers to do exactly the same for you as is done in a hospital, and that positively without charge. While you are using the remedy, you can write any time to the D. D. D. Co., explaining your symptoms, and the specialists in charge will tell you what to do as to diet, bathing and the like.

External Cure for the Skin.

This is explained by the fact that D. D. D. Prescription works on the only scientific principle of curing the skin through the skin. Formerly, in the old school of medicine, skin diseases were supposed to come from the blood, but Dr. Dennis, after years of study, discovered that eczema is due to a germ which lodges in the skin.

Not at all a Blood Disease.

Common sense will show you that eczema is not a blood disease. There are two kinds of skin trouble—two entirely different varieties. In the one kind the system is diseased, and the skin trouble is merely a symptom, as, for instance, scarlet fever, measles or small-pox; in the other class of skin diseases, the skin trouble is not a symptom, but in itself constitutes the disease. Thousands of people are suffering from eczema when they are not sick in any other way. This shows conclusively that eczema is in the skin itself, not in the system.

Remedy Found at Last.

To cure the skin through the skin, by killing and dislodging these germs, Dr. Dennis compounded from various harmless ingredients the great D. D. D. Prescription, which the greatest authorities now recognize as the specific for skin trouble. To convince you, they offer a large sample bottle free (you should send 10c. to help pay postage and packing), and we certainly advise you not to neglect this free offer. Better sign the coupon now.

AWFUL, AWFUL ITCH !

Then Instant Relief

You who have suffered nameless tortures from burning, itching skin diseases, there's instant relief and a permanent cure for you.



After days and weeks of agony—restless, suffering days and sleepless nights—you can have the itching instantly relieved, the skin cooled and refreshed, the eruption gradually taken away, and the skin made soft, clear and white again—**A COMPLETE CURE.**

Apply a few drops of that clean, mild vegetable compound—D. D. D. Prescription—to the afflicted parts and feel the relief **AT ONCE.** It seems hard to believe that after the failure of so many other preparations to help you, D. D. D. will drive away the torture so quickly; but we have thousands of letters from people who have proved in their own cases that D. D. D. will do just that. And **WHAT D. D. D. PRESCRIPTION HAS DONE FOR THOUSANDS IT WILL DO FOR YOU.**

DON'T DOSE THE STOMACH. Cure the itch where the itch is—in the skin. D. D. D. cures by killing the germs that cause the trouble. It works directly and instantly.

Free Trial Treatment A Few of the Thousands

Let us **PROVE** what D. D. D. will do for you.

in Canada and the United States Who Have Been Cured by D. D. D. Prescription.

We want to send you this large 25c. bottle free, so that the remedy itself can convince you. The instant relief you will feel, and the rapid disappearing of the eruption and torturing itch will be the best proof you can possibly have that D. D. D. is the cure for eczema and all skin diseases. The first drop will give instant relief from the itch, and this bottle will be enough to make a marked improvement in your condition.



All we ask you to do is to fill out the coupon below and send it to us with 10c. to help pay postage and packing. We prepay the charges, and the bottle costs us more than 10c. If you are willing to invest only 10c., we are willing to send the free sample and lose money on it for the sake of your future trade and your recommendation. For we feel certain you will be more than willing to recommend D. D. D. to your friends when you find out how much it helps you.

Mrs. Wm. Nexon, King St., Picton, Ont., Can., writes: "I have used the D. D. D. Prescription, and I feel safe in recommending it to all skin sufferers as a fine medicine. I suffered so much from eczema before I knew of D. D. D. that I feel more than grateful for what it has done for me."

Sign the coupon and let us send you the free sample bottle—then you will know why others are so grateful.

Mrs. H. E. Johnston, of Hespeler, Ont., wants others to hear of her cure: "Your preparation has cured me of eczema after doctoring with two doctors and trying different ointments from drug stores that only made it worse. I feel as though everybody should hear of it, so that they might be helped."

Mrs. D. McGillivray, Nantan, Alta., tells of her experience last spring: "I am glad to say I received the three one-dollar bottles of D. D. D. and two cakes of Soap safely, and am delighted with the result of both Prescription and Soap. The Soap is all that is required to complete the treatment. The little boy of two years and a half is to all appearances cured of the dreadful eczema."

"My baby girl at two months broke out with the same rash, and I treated her with D. D. D. and am perfectly satisfied she is cured, to our great joy. I feel sure it is a splendid remedy for all skin diseases, and I can highly recommend it. I shall always try and keep a bottle as a household remedy, for we feel thankful to you for it. I shall be glad to recommend it to anyone suffering with skin trouble."

Mrs. Sarah E. Hollingsworth, Picton, Ont., writes: "Every other remedy I had tried would help for a while, but D. D. D. cured completely. It also cured a friend of mine who suffered untold agony before using it, and whom no doctor could help."

Mrs. Henry Harvey, Black Lake, P. Q., Canada, says: "I had been a sufferer from facial eczema for about ten years. I was treated unavailingly by several doctors and remedies. About two years ago I saw D. D. D. advertised. I at once decided to give it a trial and sent for a sample bottle, which cured me in a couple of weeks, and I have not had it since. D. D. D. has been a godsend to me as well as many others."

Mrs. Wm. Fox, Chancery Lane, Brockville, Ont., Can., says: "Gladly I give you consent to use any letter I may have sent in praise of your wonderful D. D. D. Prescription. My little daughter's head still remains clear of the horrid scaly disease. Her father and I both notice how much brighter she is, and her light hair is simply beautiful, so thick and glossy, after six years of suffering. It seems wonderful that less than four bottles of D. D. D. should have cured her after so much money spent on the X-Ray treatment failed."

J. Gillespie, 570 Beverly St., Winnipeg, Can., says: "I have found in my case D. D. D. does all that is claimed for it."

Sign the Coupon To-day And Get Instant Relief.

Besides the sample bottle, we will send you a free book of directions for treatment with regard to bathing, diet and exercise, for every kind of skin disease, including pimples and blotches, scab head, eczema, psoriasis, salt rheum and barber's itch. We will also send you letters from a few of the thousands of people who have been cured by D. D. D. Prescription.

Signing and sending this coupon puts you under no obligation to buy anything. Send only 10c. for posting and packing the Free Sample Bottle.

D. D. D. COMPANY

23 Jordan Street, Dept. A. 7,
TORONTO, ONT.

D.D.D. COMPANY
23 Jordan St.,
Dept. A. 7,
Toronto, Ont.

Without any obligations on me please send by return mail, postpaid, your free bottle of D.D.D. Prescription, also free pamphlet on skin disease. I enclose only 10c. for postage, and will say I have never tried D.D.D. Prescription.

CUT OR TEAR OFF COUPON AND MAIL RIGHT NOW

Name

Address

Name of Druggist

of your head, and go around figuring up how long before your wife will die."
 "Say, now, see here, professor, there is a limit to endurance. I am going."
 "I am coming down to see you next week; will it be all right?"
 "Yes, if you stop that kind of talk and won't tell of my complaints about my wife, I will try your medicine. Would you stick for that part of your proposition about the pocket-book and twenty-dollar notes?"
 "How much did you say you had made together?"
 "I cave. The dress will be all right, and the pony and phaeton will be handy for the gals. Come down and see us, old man, but not a word about this talk. If you wasn't an old man I'd—," and tipping his derby back on his head and shaking the wrinkles out of his tight trousers, he put his hands in his pockets and sauntered away.
 "There," said I, "is one man who has taken the only legal and God-given way of getting rid of a miserable wife."—From "Rural Canadian," 1886. Sent by T. L. S.

TRADE TOPIC.

PROTECTION FOR FUNDS AND DOCUMENTS.—The recent epidemic of disastrous fires and unprecedented number of burglaries of late in the Dominion, forcibly demonstrates the positive lack of protection now existing in the majority of farm and business houses and manufacturing firms in Canada. This amazing condition, caused by the evident absence of both fire and burglar proof safes, illustrates the need of a line of first-class safes which can be sold at a reasonable price. In the recent great Three Rivers fire, the contents of approximately 80 per cent. of the safes, and the safes themselves, were destroyed. One can readily understand the enormous loss this lack of fireproof protection entailed, and business men owe it to themselves and their business, present and future, to immediately investigate the strength of their protection. It is well to remember that a poor safe is worse than no safe at all, for it will misuse your trust, and will not stand the test in time of need. If you are buying for fire or burglary protection, it should not be a question of how cheaply you can buy, but how well you can guard against loss. The Herring-Hall-Marvin Safes embody twenty-two characteristic features, which make strong, convincing reasons proving their superiority. The most economical and shrewdest business men and corporations secure the greatest protection obtainable by using these safes. The Canadian Fairbanks Co. will be pleased to show this high-grade line of safes to intending purchasers. The latest types of safes are carried in stock at their warehouses, Montreal, St. John, Toronto, Winnipeg, Calgary and Vancouver. Plans and specifications will be cheerfully submitted, covering installations for new buildings, either for an ordinary safe, or the most intricate fire and burglar proof safes or vaults.

GOSSIP.

COMPETITION IN JUDGING STEERS FOR SLAUGHTER.

To further increase the educational value of the slaughter test at the International Live-stock Exposition, Chicago, Nov. 28th to Dec. 10th, the directors, at their recent meeting, decided to create a competitive class in the judging of steers entered for slaughter.

This contest is thrown open to the world, and anyone desiring to take part may do so by paying an entry fee of one dollar.

The money thus obtained will be distributed pro rata among the five contestants receiving the highest rating, based upon the judging of carcasses upon the block by the regularly appointed judge of carcasses.

This contest is to be under the auspices of these in charge of the students' judging contest and the carcass contest, jointly.

Mr. H. D. Smith, Ingleside Farm, Hamilton, Ont., advertises for sale, from his noted herd of Herefords, ten young bulls of first-class breeding, and of suitable age for service in the coming season.

Why This MOWER Beats Any Other ON EARTH



WHETHER you think of buying a mower now or might buy one ten years from now, we want to tell you how good a mower we've got for you. The Dain Vertical Lift Mower is the smoothest working, lightest running, easiest pulling machine on the market. You can thoroughly understand it at once and see its vast advantages of build. The high drive wheels, for instance, insure lightest possible draft and enormously increased traction. The cutting apparatus, carried on the wheels, by means of an adjustable coil spring, uses every bit of power, reduces useless friction and lessens pull for the team.

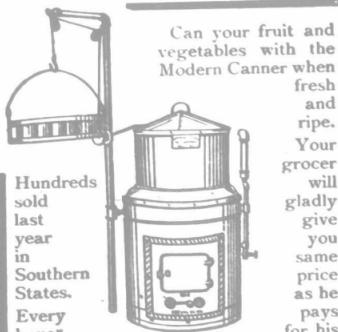
The long pitman gives a smooth, strong, unerring stroke. The gearing is all on the left wheel where it offsets the weight of the cutting-bar, altogether doing away with side draft. Many other desirable, exclusive features help make the

DAIN Vertical Lift MOWER

easiest to run, surest in results, most perfect in construction, most durable, altogether most satisfactory and so simple a boy can handle it easily.

Built with utmost care, entirely of selected materials, withstands hardest wear and tear and sticks right to business all the time. The name "DAIN" on a Mower or any other hay tool is your guarantee of highest excellence. It is backed up by the perfected result of a quarter century's successful experience. Ask your dealer about this Dain Vertical Lift Mower, or write us for interesting descriptive booklet.

Dain Manufacturing Co. Montreal, Ont.



Can your fruit and vegetables with the Modern Canner when fresh and ripe. Your grocer will gladly give you same price as he pays for his canned fruit. He saves freight—gets a superior article. By this method there are

Hundreds sold last year in Southern States. Every buyer enthusiastic.

Larger Profits For Fruit Growers

Are you getting these bigger profits? If not, write for our free CATALOGUE and learn how.

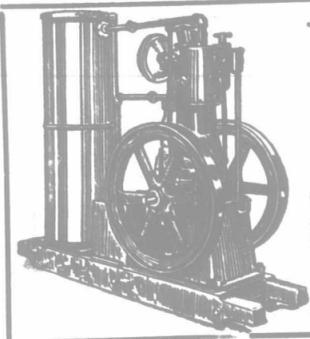
THE MODERN CANNER CO. Canadian Branch, St. Jacob's, Ont.

Artificial Fertilizer Spreaders

2 Only, British Manufacture. For sale at less than half cost, to cover storage charges.

THE SHEDDEN FORWARDING CO. Toronto.

SECURE ONE OF OUR PREMIUMS.



The "Champion" GAS AND GASOLINE ENGINE

The only Gasoline Engine that is sold on trial and guaranteed satisfaction or no sale. The price is low. Write for particulars.

WM. GILLESPIE, 98 East Front St., TORONTO, ONT.

Auction Sale of Farm Property

There will be offered for sale at public auction, on TUESDAY, NOV. 10th, 1.30 p.m., at the TOWN HALL, CLINTON, the following unencumbered property, subject to a reserve bid, by

Thomas Brown, Auctioneer: W. half of lot 11, lots 12, 13, 14, 15, 16, E. half of lot 17, on the fifth concession of Hullett, containing six hundred acres, more or less. Also part of lots 12, 13, 14, 15, 16, in the fourth concession of Hullett, containing two hundred and eighteen acres, more or less.

This is a well-known tract of first-class pasture land. The drainage tax on this property is now completed, consequently the taxes hereafter will be ordinary. It will be offered in one parcel, but if not so sold, then in lots.

Also at the same time and place, lot 35, first concession Huron Road, Tuckersmith, containing one hundred acres, more or less. TERMS OF SALE—Ten per cent. of the purchase money at the time of sale; balance in 30 days.

For further particulars apply to the owner; JOHN RANSFORD, CLINTON, ONT.

Linden Oxfords!

Having sold our farm, our flock of Oxfords will be sold without reserve. Composed of ewes all ages, this year's crop of lambs, an Imp. Hobbs ram and yearling rams. All sired by good imp. rams.

R. J. HINE, DUTTON, ONT.

After Nov. 1st next address will be St. Marv's, Ont.

TROUT CREEK LEICESTERS!

For sale: One two-shear and one shearing, and a few choice ram and ewe lambs. All well covered. Size and quality combined. Bred from some of the best blood in America. Also a few choice White Wyandotte cockerels and Emden geese. Write for prices, or come and see. G. A. GREER, Farm Half Mile from Lucknow, Ont.

LADIES' SUITS, \$7.50 to \$18.—Tailored to order. Beautiful wool skirts, \$5 to \$9. New cloth coats, \$5 to \$10. Nice cloth skirts, \$2 to \$4. New waists in lawn and silk, 50c. to \$4. Lustré jumper suits, \$4.75. Silk jumper suits, \$12. Send to-day for the sample material and style-book. They are Free. Southcott Suit Co., London, Ont.

WE MANUFACTURE Steel Troughs

Hog, Water and Stable Troughs, Steel Stanchions, Steel Water Bowls, Single and Double Feed Cocks, Coal Chutes, Steel Cheese Vats, Steel Whey Tanks, Maple Evaporators, all kinds of Steel Tanks—round, square or oblong. Bath-room Tanks, and Barn Steel Cisterns a specialty. Write us to do it now. THE STEEL TROUGH & MACHINE CO., Ltd., Tweed, Ont.

FOR SALE—Pure Rhode Island Red cockerels and pullets. One dollar each. Six for five dollars. Ernest Williams, Knowlton, Que.

FOR SALE—Two De Laval Cream Separators—500 and 600 pounds capacity. Have just had these overhauled. Now like new. Original cost, \$100 and \$125. Bargain at \$50 and \$60. Remember these are De Laval Cream Separators, the very best kind. Reason for sale: am not now on the farm. Address: W. Z. X., Farmer's Advocate, London, Ont.

WANTED—A situation for fitting horses for show or other purposes, and thorough in farming. Twelve years with one horseman. Scotch. Married. William Dickie, West Toronto.

WANTED—Two men, to be either an exceptionally good milker or an A1 Canadian farm hand. Must be good plowman and horseman. Only good, reliable, energetic men need apply. Good wages to right men. W. D. Breckon, Manager Lakeview Stock Farm, Bronte, Ont.

WANTED—Position as farm foreman. Applicant single, industrious, sober and capable. Holds associate diploma from Ontario Agricultural College. Best references. W. L. Haight, Conway, Ont.

150,000 FEET iron piping. All sizes. For water, steam, etc. Cheap. Write for prices. Imperial Waste & Metal Co., Montreal.

GOSSIP.

F. E. Pettit, of Burgessville, Oxford Co., Ont., near Woodstock, advertises for sale choice young Holstein bulls, 10 to 12 months old, sired by sons of cows having phenomenal milk and butter records.

Dairy-bred Shorthorns are advertised for sale in this paper by Wellington Stouffer, Ringwood, Ont., Stouffville Station, G. T. R., including a choicely-bred roan yearling bull, and several choice heifers, by imported sires, and bred to imported bulls.

Attention is called to the auction sale of Clydesdale and general-purpose mares and fillies and young cattle, advertised in this issue by Wm. J. Lamb, of Tancred, Lambton Co., Ont., to take place at his farm, lot 13, con. 2, Brooke Township, on Monday, Nov. 2nd, when two choice registered Clydesdale fillies, two and four years old, will be sold, one a prize-winner at London and other shows. Also general-purpose mare and gelding, and some 25 head of young cattle, farm implements, etc.

The attention of breeders of Holstein cattle, and of dairy farmers generally, is directed to the offerings in the advertisement of E. H. Dollar, of Heuvelton, St. Lawrence Co., N. Y., near Prescott, Ont., whose herd contains numerous progeny of the great sire, Pontiac Korydyke, for which \$10,000 was refused, who has more high-testing daughters in Advanced Registry than any other bull living. The great cow, Pontiac Rag Apple, was sold from this herd for \$8,000. Bull calves rich in this blood are offered at moderate prices, and should prove a good investment.

WILLOWBANK SHORTHORNS AND LEICESTERS.

Established in 1855, for over half a century the Willowbank herd of Shorthorn cattle and Leicester sheep has been in continual existence on the one farm, and in the same hands, with the one object, that of continual improvement of the herd and flock, ever in view. And certainly no name is more universally associated with the breeding of Shorthorn cattle and Leicester sheep than that of the present owner, Mr. James Douglas, Caledonia, Ont. The Shorthorn herd now numbers 70 head, representing on blood lines the most fashionable and popular tribes. The Willowbank herd ranks among the very best in Canada—strictly up-to-date in type, almost without exception of the very large, thick-fleshed, early-maturing and good-doing sort. Eight of the breeding cows are imported, many of the others are by imported sires and out of imported dams, and practically every one carrying the blood of noted Scotch ancestors. The main stock bull is the well-known Toronto first-prize winner, Imp. Joy of Morning, the Cruickshank J. bred son of Pride of Morning. As a sire, he is far-famed, his get being in active demand on both sides of the line. On hand are 14 yearling heifers, an exceptionally strong bunch, sired by the excellent stock bull, Scottish Banner, a Lady Boyne-bred son of Imp. Rosierucian of Dalmeny. Some of the heifers mentioned are daughters of Rosierucian of Dalmeny, part of them are out of imported dams, the others out of cows with imported sires and dams. There are also several young bulls, bred the same, a splendid, thick-fleshed lot, that will develop into choice herd-headers. A few imported cows can also be spared, in calf to Imp. Joy of Morning. The Willowbank flock of Leicesters are second to none. No expense has ever been spared in the selection of flock-headers, a wisdom that is plainly evident in the big, blocky type so characteristic of the flock. Almost or quite without a peer is the present stock ram; without a doubt, one of the very best ever imported. Last fall, at Sherbrooke, on the occasion of the Dominion Exhibition, in a very strong class, he was an easy first, the only time ever shown. For sale are shearing and ram lambs, shearing and ewe lambs, the shearing ewes now being bred to the stock ram. Parties in want of something choice in Leicester sheep, should correspond with Mr. Douglas. He reports trade as very good, particularly in Shorthorns.

DISPERSION SALE

THE ENTIRE HERD OF IMPORTED AND HOME-BRED

Ayrshire and Hereford Cattle

60 head of Ayrshires (males and females).
9 head of Herefords (males and females).Also sixty head of registered **Yorkshire Swine**, the property of J. N. GREENSHIELDS, Danville, Que., will be sold by auction at the farm on

Thursday, November 12th, 1908.

The Ayrshires include Netherhall Robin Hood (Imp.)—25782—; also a number of Record of Performance cows and their heifers. The Herefords include the winning herd at Sherbrooke this fall. In Yorkshire swine, Stadacona Park Royal (Imp. in dam) the first-prize aged boar at Sherbrooke, heads the herd. Everything must be sold, as Mr. Greenshields has rented his farm and gives up possession the 15th of November.

Terms: Six months' credit on bankable paper, or 4 per cent. off for cash. Catalogues will be sent on application.

CAPT. T. E. ROBSON, London, Ontario, Auctioneer.

AUCTION SALE!

Monday, November 2nd, 1908.

AMONG OTHER ARTICLES SUCH AS ABOUT

25 HEAD OF YOUNG CATTLE

Wagon, Sleighs, Harness, Collars, London Fence Machine, etc., to be sold is a beautiful **TWO-YEAR-OLD CLYDESDALE FILLY**, of perfect type, weighing nearly 1,500 pounds, taking 3rd place at the London Exhibition, 1st at Strathroy over the London 2nd in a strong class, 1st at Glencoe in a strong class, and 1st at Alvinston. Also **LOUISA VICTORIA, A FOUR-YEAR-OLD FILLY**, supposed to be in foal. These two mares are registered in the Canadian Clydesdale Book. One gelding—three-year-old, and a four-year-old mare—general purpose. Farm—Lot 13, Concession 2, Brooke Township, Lambton County, Ont.

Wm. J. Lamb, Proprietor,

Tancred P. O., Ont.

GALLOWAYS BY AUCTION

In the Winter Fair Buildings, Guelph, Ontario, on

Saturday, Nov. 7, 1908, 1 p. m.

About THIRTY Galloways—cows, heifers and young bulls. Selection from the herd. In field condition. A good chance to get some of this hardy breed so popular in the West. **TERMS:** \$50 and under cash, or 6 months on bankable paper with 5%.

D. McCrae,

Guelph, Ont.

REX SUGAR FOOD

Just add to regular feed. It will fatten any animal on the farm in half the time required without its use. Sugar Foods have been used in England for FORTY YEARS for fattening. Feed according to directions, and the result will surprise you. Try it and be convinced. Money cheerfully refunded if not satisfactory. Sold only in 10-lb., 25-lb. and 50-lb. bags. Ten cents a pound. No more. No less. If your dealer cannot supply you, write to us direct. Delivered to any address in Canada upon receipt of price. Our FOOD only requires one tablespoonful given in the feed.

REX SUGAR FOOD CO., WESTON, ONTARIO.

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

GOSSIP.

A report of the Duthie-Marr Shorthorn sale, at Uppermill, Aberdeenshire, will be found on page 1658 in this issue.

Messrs. Wm. Grainger & Son, Londesboro, Ont., write us (but too late to make change in their advertisement for this issue), that they have six young bulls to offer in their Hawthorn herd of deep-milking Shorthorns.

Mr. James Sharp, of Rockside, Ont., writes, claiming date of Friday, Nov. 20th, for his dispersion sale of Aberdeen-Angus cattle, particulars of which will appear in our next issue.

Mr. R. J. Hine, the well-known breeder of Oxford Down sheep, having sold his farm at Dutton, has purchased another at St. Mary's, Ont., which, after November 1st, will be his post-office address. St. Mary's is a junction station on the Stratford to Sarnia branch, and the London branch of the G. T. R., 22 miles from the city of London.

The footlines under the cut of an Ayrshire cow belonging to Messrs. R. Hunter & Sons, Maxville, Ont., appearing in our October 15th issue, page 1585, should read Dairy Queen of Springhill (imp.), 3 years old, winner of first prize in her class at Toronto and London Exhibitions, 1908. The first-prize aged cow and female champion at London, Dal-fible Grace 2nd (imp.), is owned by the same firm, and the error occurred through mistaken identity of the photographs of the two cows.

Attention is called to the important dispersion sale of Ayrshire and Hereford cattle and Yorkshire swine, the property of Mr. J. N. Greenshields, advertised to take place at Isaleigh Grange Farm, Danville, Que., on November 12th, when the entire herd of 60 head of Ayrshires (male and female) and nine Herefords, besides a number of Yorkshire swine, will be sold. The Ayrshire herd is headed by the noted imported bull, Netherhall Robin Hood, and a number of the cows have fine records of performance. The Herefords were winners at Sherbrooke Exhibition, as also were the Yorkshires. See the advertisement, and note that all must be sold, as Mr. Greenshields has rented the farm, and gives possession Nov. 15th. The date of sale is Nov. 12th.

At the American Royal Show, held at Kansas City, Mo., recently, the round-up show of the circuit of summer and fall shows in the Central and Western States, generally regarded by stockmen as the most important of the series, the roan three-year-old Shorthorn cow, Flora 90th, bred by Geo. Amos & Son, of Moffat, Ontario, sired by Old Lancaster (imp.), and shown by D. R. Hanna, of Ohio, was placed first in her class, and was awarded the senior championship, over the hitherto first-prize-winning cows at the other principal shows of the season. Flora 90th, it will be remembered, was the grand champion female at the Canadian National Exhibition at Toronto, 1907, and is half-sister to Messrs. Amos & Son's grand champion heifer, Pleasant Valley Jilt, at the Toronto Exhibition, 1908, by the same sire. These conquests are certainly highly creditable to the breeders, and the sire of the winners. It is significant that the dam of Dorethea 2nd, the strongest competitor of Flora 90th, was also bred in Canada, in the herd of Mr. Rankin, of Wyebridge, and was second in the placing at the Chicago International once or twice.

SALE DATES CLAIMED.

Nov. 2nd.—Wm. J. Lamb, Tancred, Ont.; Clydesdales and young cattle.
Nov. 4th.—A. E. Meyer, Guelph; J. Watt & Son, Salem, and J. Gordon Gibb, St. Catharines, Ont.; Shorthorns, at Guelph.
Nov. 7th.—D. McCrae, Guelph, Ont.; Galloways.
Nov. 9th.—Bert Lawson, Hyde Park, Ont.; Jerseys and grades, farm and implements.
Nov. 12th.—J. N. Greenshields, Danville, Que.; Ayrshires and Herefords.
Nov. 20th.—James Sharp, Rockside, Ont.; Aberdeen-Angus cattle.

The foreign judge engaged to place the awards in the grade and cross-bred beef classes and champion steers at the International Live-stock Show, Chicago, the first week in December, is William Heap, of Manchester, England, President of the National Federation of Meat-traders' Associations.

Attention is again called to the advertisement of the auction sale of 30 head of Galloway cattle from the noted prize-winning herd of Mr. David McCrae, of Guelph, to be held in the Winter Fair Building in that city on Saturday, Nov. 7th, at 1 p. m. The offering consists of cows, heifers and young bulls, and the sale affords a fine opportunity to secure good stock of this hardy and easy-kept breed of beef cattle at the buyer's own price.

At the annual sale of Shorthorns, on Oct. 14th, from the herds of A. M. Gordon, of Newton; Mr. A. T. Gordon, Combscauseway, and W. A. Mitchell, Auchnagathle, Aberdeenshire, the highest price, 600 guineas, was paid by Mr. Dron, Crieffevecht, for Mr. A. T. Gordon's great young roan bull, Bandmaster, which was first at the Royal Show, at Newcastle. Mr. Martinez de Hos, Buenos Ayres, paid 400 guineas for the red Count Scarlet; and Mr. Mitchell, Burlington, Ont., 100 guineas for roan Bandsman, from the same herd. Mr. Duthie paid 200 guineas for a roan heifer calf from the same herd. The seven head from Newton averaged £43. The twenty-two head from Combscauseway averaged £98, and the seven head from Auchnagathle averaged £36. The average for the thirty-six head sold was £75.

SIR MARCUS SOLD.

Messrs. Graham Bros., of Claremont, Ont., have purchased from the Graham-Renfrew Company, of Bedford Park, the Toronto and Chicago champion Clydesdale stallion of 1907, Sir Marcus (imp.), to complete their string for competition at the International Show in December.

DEATH OF JAMES PETTY.

The death occurred at his residence in Hensall, Huron Co., Ont., on October 23rd, of the founder of that town, Mr. James Petty, who was born in Hensall, England, and came to Canada about 1850. The deceased was one of the best known stockmen in Western Ontario. He was among the earliest importers of pure-bred stock to Canada, exhibiting prizewinning imported Shorthorns and Cotswold sheep at the Ontario Provincial Exhibition at Brantford in 1857, including the noted cow, Fanny—173—(imp.), ancestress of the famous champion full sisters, Fair Queen and Queen Ideal, the latter first-prize cow in her class at Toronto Exhibition this year. Mr. Petty was a very prosperous and successful farmer and dealer in cattle, and a very genial gentleman. He lived retired in Hensall for a number of years. He was never married.

JUDGES AT INTERNATIONAL SHOW.

Among the judges appointed for the International Live-stock Show at Chicago, Nov. 28th to Dec. 10th, are the following: Shorthorns, Harry Smith, Exeter, Ont. Polled Durhams, T. E. Robson, London, Ont. Grade and cross-bred and champion steers, Wm. Heap, Manchester, England. Dressed cattle carcasses, Sam White, Chicago. Shropshire sheep, Arthur Danks, Allemtucky, N. J.; J. C. Duncan, Lewiston, N. Y. (alternate). Hampshires, P. W. Artz, Osborn, Ohio. Cotswolds, W. F. Watt, Xenia, O. Southdowns and Lincolns, G. E. Day, Guelph, Ont. Cheviots, Noel Gibson, Millbrook, N. Y. Dorsets, James Leet, Mantua, O. Oxfords, Frank Kleinheinz, Madison, Wis. Suffolks, Geo. Allen, Paris, Ont. Clydesdales, Prof. F. B. Richards, Fargo, N. D., Andrew McFarland, Polo, Ia., Geo. Hutton, (referee), Madison, Wis.

"I hope I see you well," he said, fluently, to the old farmer leaning on his hoe. "I hope you do," was the unexpected answer, "but if you don't see me well, young man, put on specs."

GOSSIP.

The advertisement in this paper of the kitchen ranges made by the Malleable and Steel Range Manufacturing Company, of Toronto, should attract the attention of farmers and others requiring a durable and dependable range at a moderate price, and on easy terms of payment. Look up the advertisement, and read the inducement to buy direct from the makers, thereby saving the middleman's profit.

ANOTHER HIGH DAIRY RECORD.

At the request of Secretary Hemingway, of the American Jersey Cattle Club, Professor F. W. Woll, Chemist, of the Agricultural Experiment Station of the University of Wisconsin, went to Jerseyville, Ill., to conduct an official test of the Jersey cow, Jacoba Irene, owned by A. O. Auten. This cow has made a phenomenal production of over 3 pounds of butter-fat for each day of the first 6 months of her present lactation period, and is now producing about 50 pounds of milk daily, containing over 5 per cent. of butter-fat. Barring accidents, she will receive credit for a production of over 850 pounds of butter-fat, equivalent to 1,000 pounds of butter, for the year, which will end Jan. 24th, 1909. This will place her ahead of the famous Guernsey cow, Weksa Sunbeam, which produced 1,000 pounds of butter on a yearly test conducted three years ago by the Wisconsin Experiment Station. During her present lactation period, Jacoba Irene is unlikely, however, to better the record of yearly production of butter-fat by a dairy cow, 998.26 pounds, which is held at the present time by the Wisconsin Holstein cow, Colantha Fourth's Johanna.

THE FINAL FEDERAL RAM SALE.

The last of the four sales of pure-bred rams arranged by the Department of Agriculture at Ottawa to take place in the Maritime Provinces was held at Antigonish, on Oct. 14th, the second and last day of the County Fair. This being the district in which the sheep were summered, and also the center of the Federal fight against ragwort, the cause of the Pictou cattle disease, keen interest was manifested in the auction.

The offerings here consisted of 39 animals, composed of 11 Shropshire shearlings, 10 Oxford shearlings, 10 shearling Longwools, and 8 Shropshire and Oxford ram lambs. From the first, the keenest interest was manifested in the shearing Downs, but there was little demand for either the Longwools or the lambs, although both lots were of a high order. The first animal sold, an excellent Shropshire shearling, brought the satisfactory price of \$25, he being purchased for the Loch Lomond Agricultural Society, in Cape Breton. Other Shropshires and a few Oxfords passed the twenty-dollar mark, but these two classes sold chiefly about the seventeen-dollar mark. The Longwools were not in demand, the Leicester, of which there were only two, being the only ones for which there was any appreciable competition. A very superior sheep of this breed went up to \$17.50, the other bringing about \$13. One strong, fleshy Lincoln found a buyer at a low price, but the remainder of the Longwools were unsold at the auction.

The animals went to widely-separated districts, extending from Inverness Co., C. B., Cumberland Co., in the north-west, and the south shore of the Province. About half the rams went into Agricultural Societies, the others going to head flocks of private owners. A small number went to their destination by railroad, but most were taken home in the wagons of farmers attending the fair.

The leading sheep-raising sections of the Province are now fairly well supplied with improved rams. Quite extensive distributions have, in the past few years, been made by the local Department of Agriculture, and when a ram has served his day in one society, he is exchanged for another in another district. This fact accounts for a somewhat limited market this year. This sale concludes the distribution of about ninety high-class rams by the Federal Department of Agriculture, that cannot fail to have an excellent influence upon the quality and weight, and consequently the value of lambs in succeeding years.

COULD NOT GO TO WORK BACK WAS SO WEAK.

Backache is the primary cause of kidney trouble. When the back aches or becomes weak it is a warning that the kidneys are liable to become affected.

Heed the warning; check the Backache and dispose of any chances of further trouble.

If you don't, serious complications are very apt to arise and the first thing you know you will have Dropsy, Diabetes or Bright's Disease, the three most deadly forms of Kidney Trouble.

Mr. James Bryant, Arichat, N.S., was troubled with his back and used Doan's Kidney Pills, he writes:—"I cannot say too much about the benefit I received after using three boxes of Doan's Kidney Pills. I was greatly troubled with an aching pain across the small of my back. I could not go to work and my back was so weak I would have to sit down. It would go away for a few days but would always return. I was advised to try Doan's Kidney Pills and I must say they completely cured me."

Price 50 cents per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, 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, ONTARIO.

FOR SALE!

Herefords

10 YOUNG BULLS.

Good individuals, and the best of breeding, at bargain prices. Come and see them, or write at once for particulars.

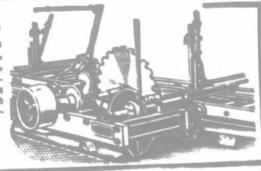
H. D. SMITH, HAMILTON, ONT. "INGLESIDE FARM."



AMERICAN SAW MILLS

Make most money because they do best work in quickest time with least power and smallest crews, owing to their simple construction and improved, patented devices. Portable and stationary. All sizes. Variable Friction Feed, Combined Ratchet Bearings and Quick Reverser and other superior features. Free Catalog and Prices will interest you. Lists our complete line of wood working machinery.

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OIL CAKE

J. & J. Livingston Brand

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

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



Watch for our next advertisement in these pages, and see what was done with above stump by using Stumping Powder.

Dualin Stumping Powder

MANUFACTURED BY HAMILTON POWDER CO.

DO YOU KNOW

That blasting stumps and boulders with our new explosive is the most up-to-date and economical way of clearing farm lands of these pests? If not, give it a trial, and be convinced. Write:

Hamilton Powder Co.'s Office,

NEAREST TO WHERE YOU RESIDE,

TORONTO, ONT. MONTREAL, P. Q. VICTORIA, B. C.

FOR FREE DESCRIPTIVE CATALOGUE AND PRICES.



FREE

When You Fill Out and Mail the Coupon

Here is a book that should be in the hands of every farmer who intends to purchase any haying, harvesting, seeding or cultivating machinery in the near future. The information, about modern farm machines, contained in this catalog, is thoroughly reliable and will be the means of saving you much labor, worry and money. Much valuable advice on Tillage, Eradication of Weeds, Dairying, etc., is also given. This book is clearly printed on high-class paper, with attractive illustrations of farm scenes. It is the handsomest, most artistic, practical and interesting catalog we have every gotten out. Let the next mail carry the COUPON to us and the return mail will bring the catalog to you.

Please send your Catalog to me. I am particularly interested in a.....

and may purchase one before next harvest.

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PROVINCE

FROST & WOOD CO. LIMITED. SMITH'S FALLS, ONTARIO.

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RUSH'S U-Bar Steel Cattle Stanchion (Patented). Saves lumber and labor in fitting up cow stables. Saves time in tying cattle. Makes cattle more comfortable, and keeps them clean. Made in 5 sizes, of light, strong U-Bar Steel. Latch easily operated, but secure. Write for booklet A. A. M. RUSH, Preston, Ontario.

RHEUMATISM. The Best and Safest Cure for GOUT, RHEUMATISM, SCIATICA, LUMBAGO, is BLAIR'S GOUT & RHEUMATIC PILLS. All Druggists, at 40c. and \$1 per box

PERFECTION Seed & Grain Separator
(Patented 1901)
The best and latest mill for cleaning and grading all kinds of Seed and Grains.
See nearest Agent or write for Catalogue to
THE TEMPLIN MFG. CO., FERGUS, ONTARIO



THE MAN WHO SWEARS BY THE FISH BRAND SLICKER
is the man who has tried to get the same service out of some other make
TOWER'S FISH BRAND
Clean - Light - Durable
Guaranteed Waterproof and Sold Everywhere
ILLUSTRATED CATALOG FREE FOR THE ASKING
TOWER CANADIAN CO. LIMITED, TORONTO, ONT.



FINE FUR SCARF

Six Feet Long.



Given for selling Colored Picture Post-cards, 6 for 10c.

While visiting the Franco-British Fair in London, Eng., last summer, we arranged with one of the biggest and best furriers there for a supply of the finest fur scarfs ever given as premiums. The picture shows exactly what this scarf is like. It is the fashionable fur now, 6 feet long, and can be worn in many different ways. It is made of the New Jarda Fur, a warm brown, a shade lighter than mink, soft and fluffy, well made and lined with brown satin. Comfortable, warm and the height of fashion; a fur that will give years of wear and always look well. You can get it easily by selling only \$3.00 of the loveliest picture post-cards ever seen in Canada—views of famous places, noted buildings and beautiful scenery, all colored. In the stores these cards sell at 4 for 10c. At our price, 6 for 10c, they go like hot cakes. Just say you will do your best to sell the cards and write your name and address plainly. The Gold Medal Premium Co., Card Dept., 17A Toronto.

Clydesdales, Shorthorns, At Kinellar Lodge we have for sale two 3-yr-old Clydesdale fillies, both reg.; a big, good pair. Several choice Shorthorn heifers. Nine shearing Cotswold ewes and nine shearing rams. This year's lambs, both sexes, and young Berkshire sows. John I. Baisdon, Markham, Ont., P. O. and station.

GOSSIP.

Mr. John T. Gibson, of Denfield, Ont., in ordering a change of his advertisement of Shorthorns and Lincoln sheep, writes: "I have only one bull left for sale, old enough for service. The herd and flock are in nice condition, notwithstanding the very dry weather. Had an extra second crop of clover, also a very good catch of young clover, sown in the wheat last spring, that made such growth that I turned both cattle and sheep in it. It helped them through the dry spell."

"I am well pleased with the calves coming from my stock bull, Star Prince -53900-, a Bruce Mayflower. I have seldom seen calves come so much alike, both in color and conformation—short-legged, thick, blocky calves, like their sire. I should be pleased to show and price, at very reasonable prices, cows and heifers in calf, or with calves by their sides. If buyers come before the snow is on the ground, they will find them outside, with good natural coats on them."

"The Lincoln ewes I am offering are the same blood as my prizewinners. They are not fixed up for sale, and will be priced so that they will be a good investment for the buyer. Our show flock will be in their usual shape for Chicago and Guelph."

WILLOWDALE BERKSHIRES.

Excellence excelled, and the very highest type of the breed, is the watchword of Mr. J. J. Wilson, of Milton, Ont., importer and breeder of Berkshire swine. Starting the breeding of Berkshire swine a few years ago, by the purchase of a pair of the best imported sows to be bought in Canada, and careful selection in additional purchases, aided by several importations, the Willowdale herd to-day ranks among the foremost in Canada. The phenomenal success attained by this herd at the late Toronto Exhibition, where they appeared to compete for honors against all comers for the first time, at once stamped the herd as excelled by none, and equalled by few. With the exception of herd, where they were placed second, they won first in every class in which they competed, which was first and silver medal on sow 2 years and over, first on sow under 2 years and over 18 months, first on sow under 12 months, and first on boar under 18 months—truly a remarkable showing in the remarkably strong competition they were up against. The stock boars in use of late were Imp. Lord Monmouth, and the Toronto winner, Lord Souvenir, with imported sire and dam. The one now being used is Imp. Diamond Cutter, thus showing that on the sire's side great care has been exercised to breed to nothing but the best procurable. In brood sows, there are over a dozen, ranging in weight from 500 to 750 pounds, among which are such grand good ones as Boyne Queen, the Toronto champion, who has one six-months' daughter that is for sale, and a good one she is. Stratton Princess (imp.), out of whom for sale are three sows three months old, by Royal Masterpiece 2nd; Polgate Dahlia (imp.), who has a litter of nine, by Lord Souvenir; also one boar and one sow, six months old, by Imp. Polgate Delarey; Willowdale Manor Lady (imp.), out of whom are one boar and three sows, six months old, by Royal Masterpiece 2nd; Polgate Dracena (imp.) has a litter by Imp. Lord Monmouth; British Beauty 3rd has a litter by Imp. Diamond Cutter—and thus we might go on to some length. The above are representative of the high-class character of the herd throughout. Special mention might be made of an exceptionally choice pair of yearling sows, full sisters, imported in dam, a high class show pair, and they are for sale. There never was a better time to stock up with a pair or two of brood sows than now. Mr. Wilson can supply either sex of almost any age, not akin, in pairs or trios. Milton, P. O. and Station, on both the C. P. R. and G. T. R., will find him.

"Pardon me, sir," began the portly person in the railroad train to the man who sat next to him, "but what would you say if I sat on your hat?" "Supposing you sit on it and then ask me," suggested the other. "I did," admitted the portly person, calmly.



THE UNION STOCK-YARDS Horse Exchange

WEST TORONTO, CANADA.

Auction sales of Horses, Carriages and Harness every Monday and Wednesday.
Private sales every day.
Come and see this new Horse Exchange. It will interest you. Also the quarter-mile track for showing and exercising.
HERBERT SMITH, Manager.
(Late Grand's Repository.)



LaFayette Stock Farm

J. Crouch & Son, Props., LaFayette, Indiana.

Largest importers in America of Percheron, Belgian and German Coach stallions and mares. Our last importation of 127 head arrived August 3rd, 1908, and we have in our barns over 200 head of stallions and mares of the above breed, many of them prizewinners in Europe and America, and can suit any buyer in horse, price and terms.

ALL STOCK GUARANTEED. Write us, or come and see us.

Canadian Agent: R. P. WATERS,
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J. Crouch & Son, LaFayette, Ind.

Clydesdale Stallions and Mares!

A fresh lot has just arrived, including many prizewinners. Some extra big ones. Prices right. Inspection invited.



DALGETY BROS., LONDON, ONTARIO.
Stables Fraser House. Address correspondence to Dalgety Bros., Glencoe, Ont.



CLYDESDALES

At Columbus, Ont., the home of the winners, this year's importation just arrived. The pick of Scotland's best. For size, style, conformation, quality and royal breeding, they eclipse any former importation we ever made. Look them up in our barn on Exhibition Grounds. Over 30 head to select from.

SMITH & RICHARDSON, COLUMBUS, ONT.

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.



Long-distance phone.

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.

Imported Clydesdales

In my new importation I have the best lot I ever imported, 7 stallions, including the great sire, Baron Hood, Nottingham, England, and royally bred.

WM. COLQUHOUN,

MITCHELL, ONT.



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 CLYDESDALE FILLIES

Young imp. mares in foal or foal by side. One Clyde and one Hackney stallion. They are the best that can be purchased. Write or come and see them. Terms reasonable. **Stouffville G.T.R. Gormley, C.N.R. G. A. BRODIE, Bethesda, Ont.**



Clydesdales

Imported and Canadian-bred. Our mares all are high-class (imp.) mares, for sale right.

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



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 S-a, G.T.R. Telegraph and telephone one-half mile from farm. Metropolitan Street Ry. from Toronto crosses the farm.**

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. 50 imported Shropshires, 0 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.**

Clydesdales and Hackneys

Our entry at Toronto Exhibition of Clydesdales and Hackneys is certainly the best we ever brought out. For an extra choice filly, either imported or Canadian-bred, look up our stable on the grounds. **HODGKINSON & TISDALE, BEAVERTON, ONTARIO. G. T. R. and C. N. R. Long-distance Phone.**

IMPORTED CLYDESDALES

My new importation of Clydesdale stallions and fillies, landed a short time ago, are an exceptionally choice lot, full of flashy quality, style and character, 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."**



HORSE OWNERS! USE GOMBAULT'S CAUSTIC BALSAM.



A safe, speedy and positive cure for the most obstinate blisters ever used. Removes all bunches from horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.

W. H. LAWRENCE-WILLIAMS CO., Toronto, Canada

Radiol.

RADIOL TREATMENT prolongs the life of a horse's legs. Completely removes by radiation all soft swellings that disfigure and lame a horse, as Sprained Tendons, Windgalls, Bog Spavins, Capped Elbow, Big Leg, Enlarged Glands, etc.

No Blisters; No Laying Up; No Hair Removed.

RADIOL TREATMENT fines down a worn horse's legs, and is a certain cure for puffy joints and Sprains, Prevents Filled Legs.

An intelligent use of the "RADIOL Leg Wash" counteracts that daily wear and tear of the legs unavoidable 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.

Carlswitz, Uddington, Eng., July 28, 1906.

Sirs—Kindly forward on receipt of P. O. enclosed another bottle of "RADIOL." I have been using it with great success on a Hackney mare with a very bad windgall that the vet had given up. Yours truly, Thos. Prentice.

WRITE FOR ILLUSTRATED BOOKLET AND USE OF "RADIOL." Ask your chemist for "RADIOL." Price \$3 a large flask, or post free from Canadian Agent:

Thos. Reid, 9 St. Nicholas St., Montreal.

Manufactured by The Radiol Co.

219 Westminster Bridge Road, London, England.

U. S. Agents: Messrs. Will I. Smith & Co., 2625 Michigan Avenue, Chicago.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single application. Occasionally two or three applications are necessary. Write for detailed information and a free copy of Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario

ABSORBINE

Cures Strained Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Scars, Wire Cuts, Bruises and Swellings, Lameness, and Allays Pain Quickly without Blistering, removing the hair, or laying the horse up. Pleasant to use, \$2.00 per bottle at dealers or delivered. Horse Book \$1.00 free.

ABSORBINE, JR., (mankind), \$1.00 bottle. For Strains, Gout, Varicose Veins, Varicose, Hydrocele, Prostatitis, kills pain.

W. F. YOUNG, P. R. F., 73 Monmouth St., Springfield, Mass.

LYMAN, SONS & CO., Montreal, Canadian Agents.

3 HACKNEY MARES FOR SALE

O. Sorby, Guelph, Ont.

CLYDESDALES

One 1,750-lb. 8-year-old mare in foal. One 5-year-old mare and one 3-year-old mare.

SHORTHORNS

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

JAMES McARTHUR, Gables, Ontario.

Dr. Bell's Veterinary Medical Wonder cures inflammation of lungs, bowels and kidneys. The 20th-century wonder. Agents wanted in every county. Write for terms.

DR. BELL, V. S., Kingston, Ont.

For Sale! Percheron and French Draft Stallions, mares and colts.

Duroc-Jersey Swine, both sexes.

JACOB STEINMAN, NEW HAMBURG, ONT.

Only a stone's throw from G. T. R. depot.

GOSSIP.

SUCCESSFUL ABERDEEN-ANGUS SALE.

At the dispersion sale, at Chicago, on October 8th, of the herd of H. Weisinger & Son, 82 head brought an average of \$200 each, two cows selling for \$600 each, three others for \$500 and \$520 each, and two for \$400 and \$460 each. The highest price for a bull was \$450. At Napierville, Ill., on the following day, a draft of 38 from the herd of John S. Goodwin sold for an average of \$167, two cows bringing \$500 and \$400, respectively.

A CHAMPION AYRSHIRE RECORD.

Mr. C. M. Winslow, Secretary of the American Ayrshire Cattle-breeders' Association, has given out for publication the year's record of the Ayrshire cow, Rena Ross, owned by R. Valentine, of Pennsylvania, under the official direction of the Pennsylvania Experiment Station, and admitted to advanced registry, her record being 15,072 pounds milk, and 751 pounds butter. This, the Secretary states, is the highest official record, both of milk and butter, of any Ayrshire cow known to him in the United States or Canada.

J. BOAG & SON'S CLYDESDALES.

An exceptionally choice lot of Clydesdales are just now in the stables of John A. Boag & Son, at Queensville, Ont. Few men in Canada are better or more favorably known as an importer and judge of Clydesdales than Mr. Boag, one of the strictly straight, upright men whose word is his bond. To know John Boag is to admire him for his many sterling qualities, while, as one of the foremost judges of Clydesdales in Canada, his reputation is continental. Ardnahe is a brown stallion, four years old, by the well-known Pride of Blacon, dam by Mountain King. This horse has been in Canada two seasons, and this fall his get are winning wherever shown. He is one of those very thick, smooth horses, of most pleasing appearance, standing on an ideal bottom—just a right good kind, and a gold mine for some man as a sire. Buttar is a roan three-year-old, by the champion Everlasting, dam by the noted show horse, Gold Mine. This is certainly one of the best three-year-olds ever imported, and we look for him to win the triple colors at Toronto this winter. He has size, smoothness, style, quality, and faultless action. Timothy is a bay two-year-old, by the champion Benedict, and his dam half-sister to the great Hiawatha, is by Prince Robert. He is a royally-bred colt, and a grand good one, up to a big size, has that pleasing, smooth mould, with abundance of quality and character. Squire is another two-year-old, a dark brown, sired by Ascot, dam by Royal Standard. This is a very choice colt, with a most pleasing top, full of style and quality—a colt that will make good wherever he goes. Rose Campbell is a Clydesdale filly, brown, two years old, by the champion Benedict, dam by the Cawdor-cup winner, King of the Roses. She is a rare good sort, the quality kind Canadians like, and is in foal to Buttar. Blanch Surprise is a chestnut five-year-old Hackney stallion, by the double champion, Rosa or, dam by the champion Garton Duke of Connaught. This is one of the good ones, with all-around and natural action, breezy appearance, and most pleasing to the eye. Terrington Burmese is a bay six-year-old Hackney mare, imported by Senator Robert Beith—a big, stylish, beautiful-acting mare, well broken, and in foal to Blanch Surprise. All these horses are for sale at living prices. Parties visiting the farm should take the Metropolitan Electric car at North Yonge St., Toronto, which lands them within one-half a mile of the farm.

"I want some collars for my husband," said a lady in a department store, "but I am afraid I have forgotten the size." "Thirteen and a half, ma'am?" suggested the clerk. "That's it. How on earth did you know?" "Gentlemen who let their wives buy their collars for 'em are almost always about that size, ma'am," explained the observant clerk.



No man who owns horses or cattle can afford to be without

"OXOL" VETE IN 'RY PREPARATIONS

These six very scientific preparations have cured more four-footed animals than any other compound at present on the market of the known world. "Oxol" is a word that spells health, strength, vitality and endurance in the stable, the farm or the field. If you are wise you will spend a little money, and by so doing make a lot of money. You are doing this when buying "Oxol" for horses and cattle.

One agent only in each district, who has sole control of local trade.

For Agent's Name See Future Advertisements.

Aberdeen-Angus Cattle
SUFFOLK DOWN SHEEP.
If you require either of these breeds, write:
JAMES BOWMAN, Elm Park, Guelph, Ont.
FOR SALE: FOUR SHORTHORN BULLS Fit for service. Dairy type. Some of them from imp. cows, and all got by Broadhooks Prince (imp.) 5500. Prices are lowest. Also cows or heifers. 60 head to select from.
DAVID MILNE, ETHEL, ONTARIO.

BROWN SWISS CATTLE
FRENCH-CANADIAN HORSES
We are offering for sale cattle of both sexes and almost any age; the greatest dual-purpose breed alive. Horses of all ages. Stallions, mares and fillies. The best stock in Quebec. Write us for prices. We represent exactly as the animal is.
C. E. STANDISH, Ayer's Cliff P. O., Quebec.
Treasurer's Farm.

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.

Mr. A. I. Hickman
COURT LODGE, EGBERTON, KENT, ENG.
Exporter of pedigree stock of every description to all parts of the world. During the fall months light and heavy horses will be a specialty. Write for prices, terms and references.

Pleasant Valley Herd
Present offering: 7 high-class young bulls by imp. Ben Lomond = 45160 = (2040) and Bud's Emblem = 63860 =, 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.

SPRING VALLEY SHORTHORNS
A choice lot of young bulls for sale, which will be priced right. Among them are winners at the Canadian National.
KYLE BROS., AYR, ONTARIO.

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.

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.

HAWTHORN HERD OF DEEP-MILKING Shorthorns
For Sale: 2 young bulls and 10 heifers, sired by Aberdeen Hero (imp.) = 28840 =. Some bred to the Lavender bull, Lavender Lorne = 65706 =.
WM. GRAINGER & SON, London, Ontario.

MAPLE GROVE SHORTHORNS
6 bulls and 2 heifers for sale. Bred from imp. and home-bred stock. A number of young cows safe in calf. Present stock bull, Starry Morning.
C. D. WAGAR, Enterprise, Ont. Stn. and P. O.

PLEASE MENTION THIS PAPER.

Scotch Shorthorns We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dams. Will be sold right. **C. RANKIN & SONS, Wyebridge P. O., Ont. Wyevale Stn.**

WHAT NEGLECT DID FOR HIM

**Jas. E. Brant Suffered Torments
from Kidney Diseases.**

**Then He used Dodd's Kidney Pills and Be-
came a Well Man - His Experience a
Lesson for You.**

Athabasca Landing, Alta., Oct. 26. (Special).—That Kidney Disease, neglected in its earlier stages, leads to the most terrible suffering, if not death itself, and that the one sure cure for it in all stages is Dodd's Kidney Pills, is the experience of Mr. James E. Brant, a farmer residing near here.

Mr. Brant contracted Kidney Disease when a young man, from a strain, and, like hosts of others, neglected it, expecting it to go away itself.

But it kept gradually growing worse, till, after thirty years of increasing suffering, the climax came, and he found himself so crippled that at times he could not turn in bed, and for two weeks at a time it was impossible for him to rise from a chair without putting his hands on his knees.

He could not button his clothes. He was troubled with Lumbago, Gravel and Backache, and tried medicines for each and all of them without getting relief, till good luck turned him to Dodd's Kidney Pills.

Dodd's Kidney Pills started at the cause of his troubles and cured his Kidneys. With cured Kidneys, his other troubles speedily disappeared, and today he is a well man.

If you cure your Kidneys with Dodd's Kidney Pills, you will never have Lumbago, Rheumatism, Heart Disease, Dropsy or Bright's Disease.

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.

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.

MAPLE HOME SHORTHORNS



Our present offering is several very choice and richly-bred one- and two-year-old heifers, and three yearling bulls. Away above the average. Pure Scotch and Scotch-topped.

A. D. SCHMIDT & SONS
Elmira, Ont.

SHORTHORNS

One imported bull, Good Morning (imp.) = 55018 =, five years old. Choice heifers, sired by Lord Lieutenant, imp. Some from imported dams, and all safe in calf to Good Morning, imp. Two extra good young roan bulls, one from imported dam. Come and see them.

M.C.R. Scott Bros., Highgate, Ont. P.M.R.



**Shorthorns, Cotswolds,
Berkshires.**

In Shorthorns, over 50 head—cows, heifers and calves from 2 to 8 months. In Cotswolds, shearing ewes and ram and ewe lambs. In Berkshires, a few young sows.

Chas. E. Bonnycastle, Campbellford, Ont.
Post Office and Station.

Spruce Lodge Shorthorns and Leicesters.

In Shorthorns, we are offering young bulls and heifers, by imp. sires and out of heavy-milking dams. In Leicesters, we have a grand lot of shearing rams and ram lambs, and one and two year old ewes of No. 1 quality.

W. A. DOUGLAS, TUSCARORA P. O., ONT.
Coledonia Station.

Brownlee Shorthorns Three young bulls left yet, 14 to 16 months. Will sell at a bargain. Also a few heifers. Very reasonable. Good milking strains.

C. P. R. station. D. BROWN, AYR, ONT.

When Writing, Mention This Paper.

GOSSIP.

A recent novel has the following passage: "With one hand he held the beautiful golden head above the buffeting waves, and with the other called loudly for assistance."

At a show and sale of Shire foals, at Derby, England, the first week in October, 275 foals were entered. In a list of some of the chief prices realized, the figures ranged from 35 gs. to 130 gs.

Robt. Bakewell was famous not only for his success in developing new breeds, he was a great advocate for the gentle treatment of farm animals, and would not allow his men to inflict the smallest act of cruelty on their charges. Mr. Arthur Young was struck by the result of this system when he visited Dishley, the home of Mr. Bakewell. "Another peculiarity," he says, "is the amazing gentleness in which he brings up these animals. All his bulls stand still in the field to be examined; the way of driving them from one field to another, or home, is by a little switch; he or his men walk by their side and guide them wherever they please, and they are accustomed to this method from the time they are calves. A lad with a stick three feet long and as big as his finger will conduct a bull away from other bulls, and his cows from one end of the farm to the other. All this gentleness is merely the effect of management."

W. COLQUHOUN'S CLYDESDALES.

Mr. Wm. Colquhoun, of Mitchell, Ont., has lately arrived home with his 35th importation of Clydesdales. For twenty-seven years Mr. Colquhoun has been importing Clydesdale horses, and of the hundreds he has brought over, that in practically every case have given perfect satisfaction to the purchaser, never before has he had so choice a lot together as now. If one thing more than any other has made Mr. Colquhoun's selections famous, it is their quality and strength of bottom, and well-sprung ankles. In this particular, as well as in strength of character and draft type, this lot certainly excels.

First among the lot is the noted Scotch sire, Baron Hood [8489], sire of last winter's grand champion at Toronto. He is a brown, eight years old, by Baron's Pride, dan by Prince Romeo, by Prince of Wales, g.-d. by Prince Robert. Baron Hood has only to be seen to be appreciated. From his superb top to his underpinning, his make-up is well-nigh faultless, and his world-wide reputation as one of the greatest living sires will make him much sought after by Canadian breeders. Another eight-year-old is the royally-bred Chief Ruler [8490], also by Baron's Pride, dan by Macgregor. He is a horse of great substance and draft character, a noted sire, and up to a ton in weight. Blacon Fashion [8481] is a bay four-year-old, by the twice H. & A. S. winner, Pride of Blacon, dan by the well-known show horse, MacVinnie. Here is a typical draft horse, of smooth, even mould, on the best of bottom, a grand type. Red Lord [8484] is a bay four-year-old, by Fickle Fashion, dan by Flashwood. Here is an exceptionally well-put-together horse, indicating strength in his every lineament, withal smooth to a turn, and with lots of quality. Admiral Vasey [8483] is a brown four-year-old, by Baron Godolphin, dan by Sir David. This is also a horse of strong draft character, big, smooth and even. Tomahawk [8485] is a bay three-year-old, by General Hunter, dan by the unbeaten Prince of Carruchan, grandam by Flashwood. This is one of the best three-year-olds imported for several years, up to a big size, with choice quality throughout, and will make over-a-ton horse, put up on show lines. Baron Glasnick [8486] is another three-year-old, by Baron's Pride, dan by Prince of Carruchan, grandam by Macgregor. No better-bred horse is recorded. In type, he is immensely thick, of the cart-horse kind, powerful, flat-boned—a draft horse all through. All this lot are exceptionally strong of bone, with well-sprung ankles, big, open feet, and typical drafters, while their breeding is on the most fashionable lines. They should be seen by intending purchasers.

Scotch Shorthorns BY AUCTION.

IN THE WINTER FAIR BUILDING, AT GUELPH, ON
WEDNESDAY, NOV. 4th, 1908

At 1 o'clock p. m. Messrs. John Watt & Son (Elora), J. A. & J. G. Gibb (St. Catharines), and A. E. Meyer (Guelph), will sell 30 head of Scotch Shorthorns—females and yearling bulls. The females are: Two 4 years old, six 2 years old, and thirteen 1 year old. All in good condition.



Families represented are: Missies, Mysies, Crimson Flowers, English Ladys, Strathallans, Roan Ladys, Lovelys, Duchesses, Merry Lassies, Mayflowers, Bellonas, Augustas, Lovelaces, Bessies, Brawith Buds, Villages, Js., and others. Most fashionably bred. Imported sires and dams. Nearly all eligible for registration in the American Herdbook. A high-class lot. Several of them show animals.

TERMS—Cash, or 6 months on bankable paper, with 5% Thos. Ingram and Capt. T. E. Robson, Auctioneers.

Catalogues on application to:

A. E. Meyer, Guelph, Ont.

P. O. BOX 378.

A. Edward Meyer,

P. O. Box 378, Guelph, Ontario,
Breeds SCOTCH SHORTHORNS Exclusively.

Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (90065) 295765 A. H. B.; Gloster King = 68703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

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 choice-bred Yorkshires of either sex. Prices very moderate. **GEO. D. FLETCHER, BINKHAM P. O., ONT.** Erin Station, C. P. R.

VALLEY HOME SHORTHORNS

AND BERKSHIRES. For sale: Young bulls from eight to twelve months old. Young cows and heifers safe in calf, and young yearling heifers not bred yet. Also young Berkshire pairs supplied not akin.

S. J. Pearson, Son & Co., Meadowvale, Ont.

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

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



We are offering a very superior lot of 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.
Manager.

SCOTCH SHORTHORNS.

For sale: A number of good Scotch heifers, mostly from imp. sire and dam, and bred to imp. bulls. One imp. yearling bull, red, a straight, smooth one. One 9-months bull from imp. sire and dam. One 10-months bull, by imp. sire and from Duchess of Gloster dam. Long-distance phone. Farm ¼ mile from Burlington Jct. station.

J. F. Mitchell, Burlington, Ont.

1854 MAPLE LODGE 1908 STOCK FARM

One handsome roan SHORTHORN BULL for sale, and several choice heifers.

LEICESTERS of the best kinds, bred from champion prizewinners. Several in good show fit.

A. W. Smith, Maple Lodge, Ont.
Lucan Crossing Station, G. T. Ry.

Farmers and Cattlemen, Read This!

When you cannot sell your export cattle at satisfactory prices at home, and wish to ship them to the Old Country markets, write or wire for steamer space, market and shipping information to

**Donald Munro, Live-stock Forwarding Agent and Commission
Salesman, 43 St. Sacramento St., Montreal.**

Load your cattle carefully, and bill them to me. I provide the necessary feed, insurance, etc., pay freight and all other expenses from shipping point, and give liberal cash advances on all consignments. Cattle are loaded on steamer under my personal supervision, and placed in charge of capable attendants for the ocean voyage. I represent the most reliable salesmen at all the different British markets.

BUSINESS ESTABLISHED 1890. REFERENCES: THE MOLSONS BANK, MONTREAL.

Shorthorns, Lincolns and Oxford Downs—Imp. Protector heads herd. For sale: Young bulls and cows; also ram lambs and ewes. All at reasonable prices.

JOHN McFARLANE & W. H. FORD,
P. M. and M. C. Rys. Box 41, Dutton, Ont.

Athelstane Shorthorns Three choice bulls and a few heifers; low-down, thick-fleshed sort, of noted families, and mostly sired by Star Prince = 53900 =. Prices very reasonable.

WM. WALDIE, Box 324, Stratford, Ont.

Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it known to us a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ontario

WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechthilde Posch. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechthilde, 27.65 lbs. butter in 7 days; average test, 4.46 per cent. fat; out of dams with superior breeding and quality.

Shipping stations—Paris, G. T. R.; Ayr, C. P. R.

A. KENNEDY, Ayr, Ont.

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld Fayne De Kol. His dam, Grace Fayne, 2nd, 26.30 lbs. butter in 7 days, is dam of world's champion 4-year-old butter cow. Sire Count Hengerveld De Kol, 70 A. R. O. daughters, including world's champion milk cow. For sale: 1 service bull; 10 bull calves, by 20-lb. butter cows. 75 head to select from.

W. D. BRECKON, Mgr., Bronte, 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 HOLSTEINS For sale: Two bull calves born April 28th. One sired by Brightest Canary; dam of calf has 22½ lbs. butter record, over 4 per cent. fat. The other from 19.49-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 2nd dam sister of Carmen Sylvia. **G. A. Gilroy, Glen Buell, Ont.**

Hilton Stock Farm

Holsteins, Cotswolds and Tamworths. Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig.

R. O. MORROW & SON, Hilton, Ont.
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Glenwood Stock Farm

Holsteins and Yorkshires. Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock.

Thos. B. Carlaw & Son, Warkworth P.O., Ont.
Campbellford Station.

Ridgedale Farm Holsteins

For sale: 4 bull calves from one to ten months old; 2 heifer calves. All bred from choice dams. Also a pair of choice cows supposed to be in calf. **R. W. WALKER, Utica P.O., Ont.** Port Perry (G.T.R.) and Myrtle (C.P.R.) stations, Ontario Co.

There is a story going the rounds of the English press concerning Dr. Ingram, Bishop of London.

Lord Salisbury, as is well known, was a very absent-minded man, and his memory for faces was just about as bad as King Edward's is excellent. Now, on one occasion, when both the Bishop of London and Lord Salisbury were visiting at Sandringham, the former observed that the Premier did not seem to recognize him. His prognostications were correct. Lord Salisbury knew the face, but just whom it belonged to, he couldn't think.

"I've met that man before, I know!" declared the Premier to his Royal host.

"Well, I should think you have," replied King Edward, "seeing that you made him Bishop of London!"

Black Watch Remarkable for richness and pleasing flavor. The big black plug chewing tobacco.

2587

CONTROL OF BOVINE TUBERCULOSIS.

(Continued from page 1652.)

It is in my opinion much more sensible and likely to be productive of ultimate benefit than the diffuse policy of promiscuously testing a herd here or there over an extensive territory, difficult, if not impossible, to keep under observation or control, without an enormous staff of well-trained, experienced, and absolutely conscientious veterinary inspectors, having no interest, beyond that of duty, in the herds with which they are called upon to deal or their owners. I might here say that the policy of employing local practitioners for this work has been repeatedly tried, and, in my experience, at least, has not, in the majority of instances, proved either beneficial or successful.

THE BANG SYSTEM.

I have nothing to say against the Bang system itself; in fact, I am, and always have been, one of its most consistent advocates and admirers. I cannot, however, after thirty years' experience as a veterinarian on this continent, and with the knowledge acquired in that time of conditions on the ordinary North American farm, bring myself to believe that it is capable of successful general application on this continent.

There is no doubt that, if all our stock-owners were thoroughly intelligent, well-informed, anxious to rid their herds of tuberculosis, and gifted with an infinite capacity for taking pains, either the Bang system or that of Ostertag might be adopted with every hope of a successful issue. As matters stand, we must, in order to deal with bovine tuberculosis effectively, have some definite policy of legal control, and the question, to my mind, is whether or not such control can properly be based on the tuberculin test.

COMBINATION OF SYSTEMS PROPOSED.

At present I am inclined to favor a combination of the systems of Bang and Ostertag with that of the Manchester men, accompanied by a closer supervision of infected herds than is recommended by either of the two first-named authorities, so far as I understand their methods. All clinical, or, if they can be detected, open cases of tuberculosis, should be destroyed; all the adults in herds in which such cases are found to be treated as if diseased, marked and segregated accordingly; all milk from such herds to be pasteurized, whether used for human food or for that of animals, the progeny to be effectively separated from the adults, regularly submitted to the tuberculin test, and kept by themselves until the disease has been eliminated from the premises by the death or removal of the affected parent-stock. Any animals added to the healthy herd would, of course, have to be tested on purchase, and retested after three months' careful isolation. I am free to admit that this plan is open to many of the objections which I myself have advanced against the other two already mentioned, but it appears to me to obviate the enormous economic waste and the tremendous popular opposition involved in the policy of compulsory slaughter, while it promises, if systematically applied, and patiently and carefully carried out, infinitely better results than can be hoped for from that of promiscuously testing the herds of only such owners as are willing to submit them to the action of the authorities. The presence of one or more actual clinical cases of tuberculosis in any herd would constitute a perfectly defensible and reasonable ground for official action; and by making notification by owners or veterinarians compulsory, as in other scheduled diseases, reliable information on which such action could be taken, would in most instances be forthcoming.

As has been well said by the editor of the Lancet, in commenting on the recent able paper of Dr. Overland, of Norway, the famous address of Dr. Koch, in 1901, has, after all, by stimulating others to investigation and research, been productive of good, perhaps to an extent sufficient to offset the hesitation and delay in actual practical effort which it undoubtedly caused.

(Continued on next page.)

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THE DOMINION RAILWAY SCHOOL,
Dept. C. Winnipeg, Man.

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported Pontiac Hermes, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented.

Putnam station, near Ingersoll.

H. E. GEORGE, Crampton, Ont.

Beaver Creek Holsteins

I have at present a few cows and heifers for sale, and three young bulls; all from good milkers. Apply to

ALBERT MITTLEFEHLDT, Etcho, Ont.

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.**

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.

FAIRVIEW HERD

offers you another son of the great Pontiac Korndyke, who has more high-testing daughters in Advanced Registry than any other living bull. We have four of his daughters that have seven days' records that average over 28 lbs. each, and over 4% fat. This young bull was born Nov. 2, 1907, is two-thirds white, and a beauty. His dam is sired by a son of De Kol 2nd's Paul De Kol, the sire of Aaggie Cornucopia Pauline. You cannot find better breeding than this. First check for \$150 takes him.

E. N. DOLLAR, Newellton, St. Law. Co., N. Y.
Near Prescott, Ont.

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.**

Only Bull Calves FOR SALE, HOLSTEINS and AYRSHIRES,

Of the best performing strains.

GEO. RICE, ANNANDALE STOCK FARM, TILLSONBURG, ONTARIO.

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.

Centre and Hillview Holsteins

125 head to select from. 35 in the R. O. M. Stock bulls Boncheur Statesman, high official backing, and in close relation 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. Priced right. **P. D. EDE, Oxford Centre, Ont.** Woodstock Station.

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.

MILK-FEVER OUTFITS.

Dehorner, Teat Syphons, Slitters, Dilators, etc. Received only award World's Fairs, Chicago, St. Louis. Write for illustrated catalogue. **Hausmann & Dunn Co., 392 So. Clark St., Chicago.**

SPRINGBROOK AYRSHIRES have been bred with a view to large milk and butter production, coupled with vigor of constitution, and being true to type. A few bull calves of 1908 for sale.

W. F. STEPHEN, Box 163, Huntingdon, Que.

Hillview Farm Ayrshires!

For sale: A number of first-class bulls and females of all ages, of heavy milking strain and show type, with large teats.

A. Kennedy & Son, Vernon, Ont.
Winchester Station, C. P. R.

Springhill Ayrshires!

A better lot of young cows and heifers we never had. They have only to be seen to be appreciated. "Deep milkers." "Good tests." Just the kind for foundation stock. Bull calves from best cows. Will leave for Scotland shortly to import. Order a choice yearling or bull calf or a female or two. They will be out of quarantine for spring service. Write for prices. Long-distance phone.

ROBERT HUNTER & SONS, Maxville, Ont.

WARDEND AYRSHIRES!

I have now for sale 2 yearling and 3 bull calves from good milkers.

F. W. TAYLOR, Wellman's Corners, Ont.
Hoard's Sta., G. T. R. Telephone in house.

Ayrshires—Oldest-established herd in Ontario.

Average B. F. test for the whole herd, 4.2; milk yield, 40 to 60 lbs. a day. For sale: Females of all ages, and several young bulls, all by imp. sire, and some out of imp. dams.

JAMES BENNING, Williams Town P.O., Ont.
Lancaster station.

Burnside's Champion Ayrshires

My 1907 importation of 75 head being about all disposed of, I am preparing to import again. Mr. And Mitchell, the world's most extensive dealer and breeder of Ayrshires, is at present securing for me the best young bulls from the best herds in Scotland. Send in your order now for a choice bull and a female or two. Bulls will be out of quarantine in time for spring service. Correspondence solicited. Long-distance phone in house.

R. R. NESS, Howick, 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, Dundas Station and telegraph.

N. DYMENT, Clappison, Ont.

DR. WOOD'S NORWAY PINE SYRUP

Is A Remedy Without An Equal For COUGHS, COLDS, And All Affections Of The THROAT and LUNGS.

Coughs and Colds do not call for a minute recital of symptoms as they are known to everyone, but their dangers are not understood so well. All the most serious affections of the throat, the lungs and the bronchial tubes, are, in the beginning, but coughs and colds.

Too much stress cannot be laid upon the admonition to all persons affected by the insidious earlier stages of throat and lung disease, as failure to take hold at once will cause many years of suffering, and in the end that terrible scourge of "Consumption."

Dr. Wood's Norway Pine Syrup is not sold as a Cure for Consumption but for affections tributary to, and that result in, that disease. It combines all the lung healing virtues of the Norway pine tree with other absorbent, expectorant and soothing medicines of recognized worth, and is absolutely harmless, prompt and safe. So great has been the success of this wonderful remedy, it is only natural that numerous persons have tried to imitate it. Don't be humbugged into taking anything but "Dr. Woods." Put up in a yellow wrapper; three pine trees the trade mark; price 25 cents.

SLIGHTLY MIXED.

Two correspondents wrote to a country editor to know, respectively, "The best way of assisting twins through the teething period," and "How to rid an orchard of grasshoppers."

The editor answered both questions faithfully, but unfortunately got the initials mixed, so that the fond father of the teething twins was thunderstruck by the following advice:

"If you are unfortunate enough to be plagued by these unwelcome little pests, the quickest means of settling them is to cover them with straw and set the straw on fire."

While the man who was bothered with grasshoppers was equally amazed to read:

"The best method of treatment is to give them each a warm bath twice a day, and rub their gums with bonaset." —[Exchange.

A CASE OF MISTAKEN IDENTITY.

Mother (viciously scrubbing her small boy's face with soap and water)—Johnny, didn't I tell you never to blacken your face with burnt cork again? Here I have been scrubbing half an hour, and it won't come off.

Boy (between gulps)—I—ouch—ain't—your little boy—ouch! I's Mose, de colored lady's boy.—[Judge.



As a result of that address, we veterinarians to-day know, or, perhaps I should say, have the proofs, conclusive and satisfactory, of many things which we knew before, but were scarcely able to prove, regarding the transmissibility to man of bovine tuberculosis, and vice versa.

BOVO-VACCINE.

And this brings me to vaccination, a subject on which I have nothing to say, beyond that, up to the present, the published results of inoculation with bovo-vaccine are, from a practical viewpoint, singularly confusing, inconclusive, and discouraging. The immunity acquired under the most favorable conditions appears to be of short duration, and any advantage which may be gained is, to my thinking, more than offset by the danger of spreading the disease.

Where cultures of the human type are used, the risks appear to be, if possible, even more serious. Weber and Tirze, working under the direction of the German Imperial Health Office, report, according to Theobald Smith, that the udder of a cow vaccinated with a human culture shed human bacilli into the milk for a period of fifteen months.

Let us make haste slowly in work of this kind, and be sure of our ground before we issue any more of these definite pronouncements which make nasty swallowing later on.

I have now briefly and inadequately placed before this Congress my views regarding the various methods recommended by scientists for the control of bovine tuberculosis. While these views may to some appear pessimistic, they are at least honest, and have been carefully considered, with due regard to the responsibility which the veterinary sanitarian entrusted with large interests owes to humanity at large, as well as to those interests. Dogmatize as we may, we are still groping, and in this, as in other matters of a like nature, those who have delved the deepest are the least sure of their ground.

In the meantime, while we are waiting, as I fear we will for some time yet have to wait, the discovery of a certain and satisfactory scientific method of dealing with bovine tuberculosis, let us, as practical men, carry on an energetic campaign of education among cattle-owners and the general public. Bovine tuberculosis will be stamped out when individual owners realize that it pays much better to keep sound cattle than to lose money and feed in maintaining herds tainted with disease.

IMPORTANCE OF STABLE VENTILATION.

In this campaign of education there should first be taken up a question in regard to which veterinarians have hitherto, in most cases, been culpably negligent. If there is one matter to-day in which veterinarians are behind the age, it is that of failing to insist, at all times, in season and out of season, on the importance to live stock of thorough and effective stable ventilation. Having before us the object-lesson afforded by the medical profession, and the marvellous results which its members are achieving by open-air treatment, not only helping, but actually curing advanced cases of tuberculosis, to say nothing of checking the disease, as is now daily done in its early stages, it is nothing short of disgraceful that we are yearly permitting thousands of valuable animals to become infected, owing to the unsanitary conditions under which their owners insist on keeping them. Of the truth of this contention, which is, perhaps, at first sight, rather sweeping, there is no lack of proof. In northern countries, where cattle are generally closely housed, and where a proper system of ventilation is the exception, and not the rule, we almost invariably find bovine tuberculosis rampant. In milder climates, where animals have free access to fresh air, as, for instance, among the Hereford cattle in England, it is a rare thing to find a case of that disease. On the ranges, tuberculosis is unknown, except where it has been introduced by some pampered, stable-bred individual, and even such a one is more likely to recover than to die, provided the malady is not too far advanced and the first winter can be endured. To put the case

(Continued on next page.)

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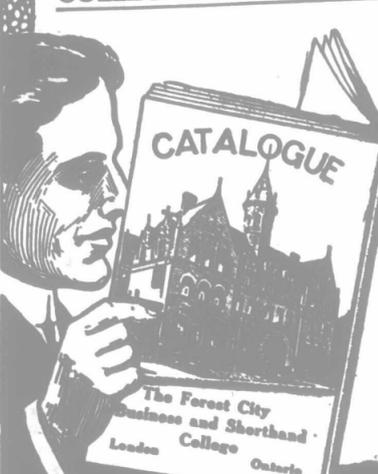
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BRAMPTON JERSEYS

CANADA'S PREMIER HERD.—Strengthened regularly by importations from United States, England and the Island of Jersey. We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from. Write for prices and particulars. Long-distance telephone at farm.

B. H. BULL & SON, BRAMPTON, ONT.

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.

SHROPSHIRE

Flock of the most approved type. We offer good animals at reasonable prices.

W. D. MONKMAN, BOND HEAD, ONT.

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CONSIGNMENTS SOLICITED. HIGH PRICES.

SHIP DOWN TO 1 SKIN. BEAR US IN MIND. SHIP FROM 1 SKIN UP.

E. T. Carter & Co., St. East, Toronto

FOR SALE Pure Shropshire Ram and Ewe
Lambs, born from 20th March to 1st of May. Price ten dollar each, including pedigree. Shearing rams and ewes at reasonable prices. 130 to choose from. Also fine St. Lambert Jerseys. All ages. Prices right. H.E. Williams, Sunny Lea Farm, Knowlton, P. Q.

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.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Harrison, Ont.**



Belmont Shropshires!

THE CHAMPION FLOCK OF CANADA.

Just arrived at the farm: We believe, the best selection of Shropshires ever imported from Britain. If you want flock headers, show rams, field and show ewes and lambs at moderate prices, visit the Belmont Farm and inspect our flock. We import Welsh cobs and Shetland ponies.

J. G. Hanmer & C. Hodgson, Props. Belmont Stock Farm, Box 92, Brantford, Ont.

OXFORD DOWN RAMS
For sale. A choice lot of yearling rams and ram lambs at close prices.

W. A. BRYANT, CAIRNGORM, ONT.

POPULAR LODGE SOUTHDOWNS 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.

CLAYFIELD STOCK FARM! Buy now of the **Champion Colts-wold 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.**

Locust Lodge Leicesters. Bred for size, wool and quality. Breeding stock for sale. All ages and both sexes. Write for prices. **C. & E. WOOD, Freeman P. O., Ont.** Burlington Jct. station.

MAPLE SHADE FARM

Will sell 24 excellent shearing **SHROPSHIRE EWES**, also 6 thick shearing rams. All are by an imported ram and from imported ewes, and would be splendid sheep for foundation of new flocks. They are offered at a reasonable price, either in one lot or in smaller flocks. Come and inspect, or write.

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

plainly, stockmen are BREEDING TUBERCULOSIS a great deal faster through neglect of this important subject of ventilation than it would ever be possible to stamp it out by the promiscuous use of tuberculin and the slaughter of diseased animals.

OPEN-AIR TREATMENT OF A TUBERCULOUS HERD.

I may be pardoned if, while on this subject, I refer briefly to an experiment which I have been carrying on for the last three years. A herd of forty-three (43) cattle, twenty-one (21) being dairy cows, twenty-eight of which had reacted to tuberculin, the remaining fifteen being apparently free from disease, has been kept under open-air conditions since the fall of 1905. The objects of this experiment, which is of a purely practical nature, are threefold: firstly, to ascertain the effect of open-air treatment upon the diseased cattle themselves; secondly, to ascertain to what extent healthy cattle, kept in contact with diseased cattle, under open-air conditions, are subject to infection; thirdly, to ascertain what percentage of healthy calves it is possible to rear from diseased cows, kept without any precautions under open-air conditions. The experiment is not yet concluded, nor have its results been properly tabulated for publication. I may say, however, that of the 28 reactors, only one has broken down from generalized tuberculosis during the three years which have elapsed since the experiment began. One other has been killed, owing to tuberculosis of the udder. Of the healthy animals kept in contact with them, feeding from the same racks, grazing over the same ground, drinking from the same pool, not a single one has become affected, and this in spite of the fact that from time to time animals suffering from acute, generalized tuberculosis have been introduced to the herd, and allowed to mix freely with its original members.

The results in the rearing of healthy calves, however, remind one somewhat of the Irishman's pigs, which, you will recollect, when killed, did not weigh as much as he expected, and he never thought they would. Of the calves dropped and reared by reacting cows, seventy-five per cent. have so far entirely failed to react, while twenty-five per cent. have reacted, at various ages, ranging from four months to one year. One calf died at six weeks old from generalized tuberculosis, this case being probably congenital.

The results of the various tests of the original reactors, made at intervals of about six months, and in the last case after a lapse of twelve months, are exceedingly interesting, and will, when published, together with the post-mortem notes, merit the careful perusal of those who believe in the absolute reliability of tuberculin as a diagnostic agent.

I might add that the cattle have had no shelter but open sheds, and have, with the exception of a few of the weaker individuals, been fed nothing but hay for the three winters during which they have been under observation.

It should be mentioned that, through an error in judgment on the part of an over-zealous herdsman during the first winter, our calves began to arrive in December of 1906, the first being dropped when the thermometer was 29 below zero, the others following at intervals, sometimes very short, until the middle of March, 1907, and that, in spite of this, both dams and progeny thrive well in the open air.

The results are very interesting, in view of the present tendency to consider the digestive tract the most frequent and certain channel of infection. While the experiment above outlined assists in proving that young animals can be and are most frequently infected through the digestive system, it also, to my mind, shows that, in the case of adults, infection through the air passages plays an important part.

I feel satisfied, and I think all practical men will agree, that had the healthy cattle in this experiment been kept under ordinary stable conditions with their diseased companions they would not have escaped as they have done.

GET CLOSER TO NATURE.

The highest medical authorities are nowadays advising—and with the very best possible results—our modern hot-

house humanity to get "closer to nature" in every possible way. The advantages of adopting a similar policy in the handling and housing of domestic animals are too apparent to admit of discussion. Nature has furnished our animal friends with every conceivable requisite for protection against ordinary climatic conditions, and most of the diseases and disabilities to which they are subject have been caused by and owe their continuance to the irrational artificial conditions imposed upon them by well-meaning but ignorant, or, rather, unthinking owners and attendants.

I am here, however, to learn, and not to teach. The problem of the control of bovine tuberculosis is undoubtedly the most serious confronting the veterinary sanitarian of to-day, and if the labors of this section of the International Congress result in its solution, I for one will be forever grateful.

GOSSIP.

WILLOWBANK HORNED DORSETS.

The unqualified success in the showings at Toronto, London, Ottawa, Sherbrooke and Chicago, of the Willowbank Flock of imported and Canadian-bred Horned Dorset sheep, the property of Messrs. James Robertson & Sons, of Milton, Ont., is proof-positive that they have no superiors as a flock of high-class show sheep in Canada—a tribute to the excellent judgment of the Messrs. Robertson in the selection of breeding stock, and to their skill as expert feeders and fitters. The flock is now about seventy strong, the greater number of them imported. For sale just now is a bunch of imported shearing ewes, bred to this year's Toronto and London champion ram; also a pair of three-shear imported ewes, bred to the same ram. This is a very choice pair of show ewes. Besides these there are a number of Canadian-bred ewes for sale. In youngsters, there are 12 ewe lambs, six of them out of imported ewes, and all of them got by last year's grand champion all around the circuit, Imp. Romulus 2nd, said to be the best ram of the breed ever imported. In rams for sale, there are several shearings, imported and Canadian-bred, and three ram lambs sired by Homestead H., the ram that in 1906 headed the first-prize Canadian-bred flock at Toronto. Without doubt, this is the choicest offering of Dorset sheep in Canada, and parties wanting anything in that line would do well to look them up. Parties from a distance may place perfect confidence in whatever Mr. Robertson says about his sheep, as he represents things exactly as they are. This fall the flock won the highest honors, including the open flock prize, wherever shown.

LAST CALL FOR THE GUELPH SALE.

In last week's issue was a short synopsis of the excellent breeding of the twenty-eight head of Scotch Shorthorns to be sold at the Winter Fair Building, in Guelph, on Wednesday, November 4th, 1908. The seven young bulls to be sold are a really good lot, some of them bred on show lines, and bred fit to head any herd. One of them, an English Lady, is sired by that excellent, big, thick bull and splendid sire, Imp. Pride of Scotland. Another, a Crutskhank Belona, is sired by one of the greatest sires in Canada, Imp. Scottish Hero, and his dam is also imported. The others are all sired by the Lavender-bred bull, Trout Creek Wonder, a bull that is not only a choice individual, but is proving a capital sire, on blood lines. One is a double-cross Missie, another a Village-bred, another a Princess Fairy, another a Roan Lady, and the other a Cinderella. The females, in age, are: Two four years old, six two years old, and thirteen one year old. Among them are several likely candidates for show honors. All are a big, good lot of the thick-fleshed, good-doing sort, bred on the most fashionable lines, some of them already prizewinners, and nearly all eligible for registration in the American Herdbook. Without doubt, this will be one of the very best offerings for sale this year, and should be a drawing-card to all breeders interested in Shorthorns from both sides of the line.

Cooper's Fluid

For dipping SHEEP.
For washing CATTLE, HORSES and DOGS.
Cures Mange and Ringworm.
Cures Maggot wounds in Sheep.
Cures Ulcers, Sore Udders, etc.

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Cooper's Worm Tablets

A sure cure for worms in CATTLE, HORSES and SHEEP.
Write for free Booklet P.

At the Royal Show England, 1908

In the following breeds of sheep, EVERY PRIZE-WINNER used

COOPER'S DIP.

CHEVIOT, COTSWOLD, HAMPSHIRE, HERDWICK, KENTISH or ROMNEY MARSH, LINCOLN, LONK, OXFORD DOWN, RYELAND, SHROPSHIRE, SOMERSET and DORSET, SOUTHDOWN, SUFFOLK, WELSH MOUNTAIN, KERRY HILL, SOUTH DEVON.

We hold written evidence of the above in every case.
Why use any but COOPER'S.
Write for prices to:

WM. COOPER & NEPHEWS
506-507 Manning Chambers, Toronto, Ontario.

Shropshires, Cotswolds Oxford Down Sheep

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.
Claremont station, C. P. R.

AT FARNHAM FARM.
We are at present offering a number of superior yearling rams and ram lambs, by imported sire and partly from imported dams. Some splendid yearling ewes and ewe lambs. Also a few imported yearling and ram lambs. Price reasonable.
Henry Arkell & Son, Arkell, Ontario.
Arkell, C. P. R. Guelph, 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.

IMPORTED HORNED DORSETS
My importation for 1908 will arrive in a few days. Look me up at Toronto Exhibition. I have for sale a few of both sexes, the get of last year's champion all round the circuit, Imp. Romulus 2nd. Canada's banner flock of Dorsets. JAS. ROBERTSON & SONS, MILTON P.O. and Sta., C.P.R. and G.T.R.

HAMPSHIRE DOWN SHEEP!
Yearling rams and yearling ewes. All bred from imp. sire and dams. Price reasonable.
L. E. MORGAN, MILLIKEN, ONTARIO.
Bell Phone. P. O. and Sta. (G. T. R.)

SOUTHDOWNS AND COLLIES.
Long-distance Telephone.

10 good yearling rams, including the first and third prize winners at London. Also some good breeding ewes, which must be sold, as the flock is being reduced.
ROBT. McEWEN, Byron, Ont. Ry. Stn., London, Ont.

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. Wilton P.O., Ont.

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.

CHESTER WHITE SWINE AND SHROPSHIRE SHEEP.
Write for prices.
W. E. WRIGHT, GLANWORTH, ONTARIO.

Maple Villa Oxford Downs and Yorkshires
For sale: Sunset, imp., 2 yrs. old—a grand ram and a grand, good sire; 15 shearing ewes; 4 shearing rams; this year's lambs of both sexes. A high-class lot. Yorkshires of both sexes and all ages. Satisfaction is guaranteed.
J. A. GERSWELL, Bond Head P. O., Ont. Beeton or Bradford Sta.

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 Campbell & Sons, Norwich, Ont.

Large White English Yorkshires

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.

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.

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.

Interesting School Pupils in Agriculture.

It seems that a few of the county superintendents in various States of the Union have of their own accord been endeavoring to introduce into the rural schools, not so much the study of agriculture, but the spirit of agriculture, without which the study is comparatively useless. Among these is Cap. E. Miller, of Keokuk, Iowa. Our esteemed contemporary, Wallace's Farmer, asked him to furnish a statement of the methods he has adopted. This he does in the following communication, which we commend to all who are interested in the vitally-important and pressing problem of rural education reform:

"The teachers and pupils in the schools of this county have been interested in agricultural education for a number of years. Each year our boys and girls have planted seeds, watched the plants grow, have cared for the plants, have studied the plants, keeping notes on growth and tendencies of the plants. These notes have been used as the foundation for composition and language work in our schools. The products and seeds from the plants have been brought to school, and have been studied and examined in connection with language work. Many of the teachers have arranged for school fairs, where these products are placed on exhibition, and where the best compositions and essays are read. The parents have taken a keen interest in this phase of education, for it makes them feel that our teachers are interested in farm work and life.

"When our boys and girls study a plant for a whole summer under the direction of their teacher and county superintendent, they are able to write a life history of the plant which is astonishing to adults. They learn many things not found in books. It teaches them to rely on their own figures and investigations. There is a logical order in the study of plant life which has a good influence. Our boys and girls have received the benefit which comes



DOMO, \$15 and \$25.

A CREAM SEPARATOR AT A PRICE ANYONE CAN AFFORD.

Guaranteed as well made, and equal in close skimming to any other. Write for further particulars.

J. H. Morrow, Brighton, Ont.

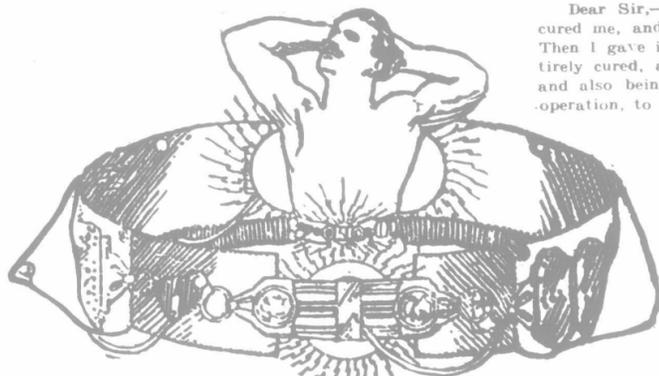
LOVELY DRESSED DOLL

Given for selling Colored Picture Postcards, 6 for 10c.



This Charming Fairy Princess has flown thousands of miles over land and sea from the far-away famous Black Forest of Germany, and is now here in Toronto stopping with us till some nice little girl invites her to her home. Like all fairies, she is as pretty as a picture, and, being a Princess, she is the prettiest of all the fairies. She is 20 inches tall, and is beautifully dressed from top to toe. Has a straw hat, edged with white lace and trimmed with a pink rose and pink ribbons; curly hair; a sweet, little face with a peach bloom complexion; laughing eyes, and lips just parted, showing a row of pearly teeth. Her dress is made in the latest fashion from a delicate pink material, with an overdress of sparkling, gauzy silver veiling, trimmed with pink satin ribbons and bows and pink roses, and she has white stockings and dainty white slippers, with little silver buckles. She is exactly like her picture, which was drawn by a fine artist. She will come to you on one simple condition, which is that you sell for us only \$3.00 worth of the loveliest picture postcards ever seen in Canada—views of famous places, noted buildings and beautiful scenery, all colored. In the stores these cards sell at 4 for 10c. At our price, 6 for 10c, they go like hot cakes. Here is your chance to have a Fairy Princess of your very own, to live with you all the time, to play with you, sleep with you, closing her eyes just as you do. She will make you happy and contented all day long. You may never get another chance like this, so don't miss it. Send to us for the cards right away. Write your name and address plainly. The Gold Medal Premium Co., Card Dept., 13 A Toronto.

Dr. McLaughlin Talks About His Electric Belt



Dear Sir,—I write to let you know that your Belt has cured me, and I am entirely satisfied with your treatment. Then I gave it to my sister to wear, and she, too, was entirely cured, after being treated by many different doctors, and also being told that she would have to go under an operation, to which she would not consent. She used your Belt, and was entirely cured.—JOHN W. THIBAULT, Bruce Mines, Ont.

When your stomach, liver or digestive organs get out of order it is because they lack the necessary electricity to enable them to perform their regular functions. The breaking down of one of those organs nearly always causes other trouble. Nature can't cure them, because your body hasn't enough electricity to do the work, so you must assist Nature by restoring this electricity where it is needed.

My Belt does this while you sleep. It saturates the nerves with its glowing power, and these conduct the force to every organ and tissue of your body, restoring health and giving strength to every part that is weak.

Electricity is a relief from the old system of drugging. It does by natural means what you expect drugs to do by unnatural means. It removes the cause of disease, and after the cause has been removed Nature will do the rest.

If you are skeptical, all I ask is reasonable security for the price of the Belt, and you can

PAY WHEN CURED

Get my 80-page book, describing my treatment, and with illustrations of fully-developed men and women, showing how it is applied. This book tells in plain language many things you want to know, and gives a lot of good, wholesome advice for men. If you can't call, I'll send this book, postpaid, free, if you will mail me this coupon.

Consultation Free. Office hours: 9 a.m. to 6 p.m. Wednesdays and Saturdays to 8.30 p.m.

DR. M. S. McLAUGHLIN, 112 Yonge St., Toronto, Can.

Dear Sir.—Please forward me one of your books as advertised.

NAME

ADDRESS

Ever since the beginning of civilization, the man who made a new discovery or invention was jeered or laughed at. When Morse, the inventor of the telegraph, claimed that he had a means of transmitting messages by electricity, nearly everybody thought he was crazy.

To-day people are almost as skeptical about any new invention as they were fifty years ago. When a doctor comes forward with a new remedy, or a new method of curing disease, their first cry is, "show me." I can do it.

I have invented an electric body battery for the cure of chronic and nervous ailments, and for weakness in men and women. It gives vigor, health, new vitality to your blood, nerves, organs, or any other part of your body that may be weak.

My Electric Belt generates a powerful current of electricity, and can be made as strong or mild as you like, by the adjustment of a regulator.

Scientists tell us, and I have proven, that the native power of the body is electricity. When you are full of it you are strong and healthy. When you lack it you are weak, stupid and nerveless. Electricity cures by restoring to the body the power it has lost. When I say that electricity cures, I don't ask you to take my word for it. I back up my statement with the testimony of hundreds of honest men who have found health and strength in this life-giver, and who were just as skeptical as you before they tried my treatment.

from this study. We have used these life-histories in place of orations, and the scheme works well.

"Our boys have an organization known as the Agricultural Club, and our girls have an organization known as the Home Culture Club. These boys and girls hold township and county meetings from time to time. They have secured the help and co-operation of some of the most able and noted speakers in the State and nation. These speakers have talked to them on various subjects connected with the home and school. The parents are always glad to get a chance to attend these meetings. These speakers have brought messages of instruction and enthusiasm and inspiration to the meetings, and, in turn, a new spirit is found in our rural schools and in our farm homes.

"Our teachers have used bulletins from the State College of Agriculture, and from the United States Department of Agriculture, to good advantage. These bulletins, together with the outlines from the county superintendent, have given them the source from which to work. It would take a volume to tell of some of the unique things which have been done by some of our teachers in connection with agricultural education. This phase of education has furnished a means in a number of cases for teachers to get hold of the bad boy. It has helped to do away with truancy, for it has made our schools and school-work interesting and attractive. It has helped to connect the home and school more closely than ever before.

"One of our most successful plans is to arrange each year for a few visits to prominent, but attractive and up-to-date farm homes. Here we meet, and, under instruction of teachers from the College of Agriculture or other institutions of learning, we study live stock, soils, buildings, machinery and products on a real farm. On this great day we study weeds, and conduct judging schools or contests in domestic science, corn, and live stock. Hundreds and thousands of our farm people turn out to see the boys and girls take part in these annual short courses. Parents, teachers and pupils all go home with new interest in farm work, farm life, rural schools, and farm homes.

"Agricultural education has been a wonderful factor for good in making our boys and girls realize that the farm is not a place to be dreaded, but a place for growth and progress, a place for comfort and happiness, a place for freedom and liberty, a place of opportunity and possibility."

GOSSIP.

SUNNYMOUNT BERKSHIRES.

Years of judicious selection of breeding stock has brought the Sunnymount herd of Berkshire swine, the property of Mr. John McLeod, of Milton, Ont., to the high standard of type and quality of this herd, which easily ranks among the best in Ontario. The stock boar is the splendid quality hog, Imp. Diamond Cutter, a boar that, for ideal bacon type and superb quality, would make many of the best of the other bacon breeds look cheap. Among the dozen or more brood sows, two or three deserve special mention. Imp. Kingston Maid is now suckling a litter by Imp. Lord Monmouth. Imp. Stratton Lizzie is also suckling a litter got by Lord Roberts; also, out of her are several young sows, got by Imp. Lord Monmouth. Another of the extra-choice sows is Nellie 2nd, a daughter of Premier Longfellow 3rd. Out of her, and got by Imp. Lord Monmouth, are two six-months' sows. She is now suckling a litter by Lord Roberts. All these young sows mentioned as well as a number of others, are for sale. In boars for sale, are four yearlings, two of them got by Imp. Lord Monmouth, and out of Imp. Kingston Maid; the other two, sired by Kingston Lad, and out of Imp. Kingston Rose. Here are a quartette of stock boars fit to head any herd of Berkshires, being large, smooth, even, and possessed of lots of quality. Parties wanting something choice in Berkshires should write Mr. McLeod.

The Laird—Well, Donald, I met the pastor in London. He seemed to be benefiting by the change. Donald—Sae are we, sir; sae are we!