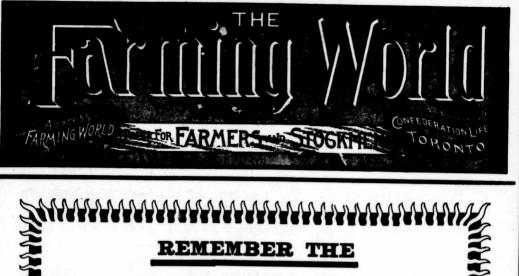
Every Week-\$1.00 a Year.

Toronto, July 8, 1902.



Central Canada Exhibition at OTTAWA

August 22nd to 30th, 1902

It's Canada's Great Show for the Breeder and Agriculturalist. Gold Medal Special Prize List bigger and better than ever.

Munificent Premiums in Live Stock Classes. Encouragement given to Breeders and Stock Raisers in every class.

New Prize Competitions to foster greater knowledge of Agriculture. If you have not attended either as exhibitor or sight-seer, try it this year. Prize lists and entry forms can be secured by writing the Secretary.

Entries Close August 20th.

EVENING SPECTACULAR

"The Burning of Moscow"

Choice List of Stage Specialties.

WM. HUTCHISON, President.

E. McMAHON, Secretary,

Always Mention THE FARMING WORLD when writing to Advertisers



The Farming World

For Farmers and Stockmen

Vn. XXI.

JULY 8th, 1902

Commuted Statute Labor

T will pay everyone interested in road reform to read the description given by Mr. D. R. Beaton, in our Correspondence column this week, of the working of the commuted Statute Labor system in Pickering township. While during the first year or two there was some dissatisfaction with the system, this disappeared as the peo-ple became familiar with the working of the system, and the commissioners became more familiar with their duties. This has been with their duties. This has been practically the experience of every municipality that has commuted the Statute Labor system. The new plan, after being in operation a few years, has the effect of doing away with opposition. People see how foolishly and at how great a cost they have wasted time and material in performing statute labor, which contrasted with the more economical and permanent way in which the roads are maintained by the commuted system, cannot but convince the most sceptical as to which is the more profitable one to adopt. The com-muted system makes for permanancy and efficiency in road-making and should be given a trial in every ununicipality.

.... Guaranteeing Breeding Stock

In these days of increased de-mand and higher values for improved breeding stock, the question as to what extent guarantees of an animal's usefulness for breeding purposes should be given, assumes added importance. This is a matter, however, that must be left largely to the individual buyer and seller to adjust as may seem fit. It would be difficult to formulate a set of hard and fast rules concerning the question of a guarantee, simply because there are so many different conditions entering into the business transaction between the buyer and seller. It is generally understood that where there is no definite contract or agreement between buyer and seller, that the latter is liable to the buyer for the amount paid for the animal above its value for ordinary commercial purposes at the time of the transfer is made, providing it turns out to be a non-breeder.

However, there is very little friction between breeders and their customers on this point as most breeders conduct their business in the spirit of justice, and are ever-ready to make good to a reason-

able extent any losses through animals not fulfilling the purpose for which they were sold. This is especially true where private sales are made, and to a greater or less extent where stock is sold by public sale. Men interested in live stock breeding as a business, are too jealous of their reputation and good name to permit any just cause for complaint of loss from a customer to pass by unsatisfied. Where the seller has so much at stake the buyer need have little fear of being misused or defrauded.

And yet there are two sides to every question, and this is no exception to the rule. Very often the seller of an animal is as much imposed upon as the buyer. We heard of one case recently, where a breeder sold a valuable young cow for a pretty high price. After the buyer had kept her a year, he reported that after repeated trials had failed to get the cow in he calf. The breeder promptly took the cow back and refunded the money he had received for her. But strange to say, on receiving the cow he bred her to his own bull, and we understand that she settled to the first service. This was evidently a case where the trouble was not with the cow, but with the bull, or bulls, to which she had been bred. And so it is not well to condemn the seller of the animal until there is positive proof that it is a non-breeder.

As we have already stated, there is little difficulty in adjusting matters of this kind, when the transaction is of a private nature, though it is well that the buyer should have a definite understanding in writing or otherwise with the seller as to the extent of the guarantee he will give. This will remove all future doubt and make after transactions more pleasant. It is generally considered that when a female is sold that proves to be pregnant at time of sale, that she is a breeder, and that the seller should not be liable even though she should be unfortunate, unless she had been what is termed a chronic aborter. A female sold as being bred, which proves not to be pregnant after six months trial, should be regarded as shy, if not a non-breeder. A bull of serviceable age that is given proper treat-ment should be able to get at least 60 per cent. of sound healthy, regular breeding cows in calf, if given service at their regular periods. The proper treatment of a bull means a great deal in this regard. With regard to public sales, it

will remove a lot of difficulty and

dissatisfaction il it is stated definitely in the catalogue announcement, whether a guarantee of future usefulness will be given or not. If a guarantee is to be giv-en it should be stated plainly what is meant by such a guarantee. This then becomes a law by which all questions arising thereafter may be We know there is a difsettled. ference of opinion on this point, but we believe breeders, as many of them now do, will gain more by taking the public into their confidence and stating plainly what they propose to give in the way of a guarantee. We should be glad to have the views of breeders and others on the points discussed.

Would Not Fewer Fences Do?

The fence problem is one that every farmer has to face. One way of solving it is to have fewer fences on the farm. Outside of the line or boundary fence there is no need for more than four cross fences on the average hundred-acre farm. At the Ontario Agricultural College a four years' rotation is followed and consequently the College farm of several hundred acres is divided into four fields. This saves much labor and worry in keeping up the fences and in addition there is less waste of land and fewer fence corners to keep clean.

In the old days when fence tim-ber was plentiful and land was cheaper the number of fences on a farm did not cut much of a figure though they were often the har-bingers of weeds that have left their imprints on many a farm till this day. But in these days of keen competition, when it is incumbent upon the farmer to make the very most of every foot of land he possesses, fewer and better fences have become a necessity. We ven-ture to say that on the average Ontario farm to-day fully one-half of the inside fences could be dis-pensed with without any inconvenience whatsoever. If farmers would decide upon the kind of rotation of crops best suited to their soil and conditions and fence their farms accordingly, they will find the fence problem very much simplified and fewer fences to maintain.

There are many who have the impression that it is necessary to have a field fenced for each kind of grain sown. Not so. One field for the grain crop, one for the hay crop and one for pasture are all that are necessary on the average farm. Of course, the orchard and garden should be fenced off separately

Nu 2

from the test. Such a division would admit of the hay and grain fields being pastured after the crops were off without interfering with each other or with the root or corn crop. By thus cutting down the number of fences, farmers would be able to build better and more substantial fences that would add greatly to the beauty and appearance of the farm. Is not this matter worth looking into? Even if no fewer fences are maintained it will pay to change the fences about every few years so as to have the old fence lands cleaned and renovated.

Rural Education in the East.

Prof. Robertson returned last week from a trip to the Maritime Provinces in the interest of the manual training movement and education in rural schools. Both these movements are attracting much attention in the Provinces down by the sea. At least eight new places in Nova Scotia will adopt manual training as part of the school course in September. The local government has provided a grant of \$600 to any school board that will give a full course in manual training or household science to not less than 100 pupils, or a grant of \$300 where the number is less than 50. The manual training movement is also going ahead in New Brunswick, and the Government has arranged to pre-sent a bonus of \$50 to any teacher who gives instruction on the subject in his school. The New Brunswick Government has also offered to pay half the cost of carrying children to a centralized or consolidated school. Prof. Robertson also conferred with the Secretary of Education for Quebec regarding a choice of places for the establishment of consolidated rural schools in that province.

Paris Exposition Medals

There arrived at the Parliament Buildings last week a score or more of medals, diplomas, etc., from Paris. These comprise the awards for Ontario's display at the Paris Exposition in 1900. A number of the diplomas are for Ontario's fruit exhibit, which received special mention. Among the arrivals are three bronze medals, or grand prizes, the highest awards given. These are sent to the Province of Ontario and to the Minister of Agriculture.

----At Washington

Prof. F. C. Harrison, Bacteriologist, Ontario Agricultural College, is spending a few weeks at Washington, D. C., taking up some ad-vanced work in bacteriological science. The United States Department of Agriculture is making some advanced bacteriological investigations and invited Prof. Harrison, with a number of other bac-teriologists, to join in the work.

Our Western Letter

Crop Prospects-Plowing Matches-Live Stock Exhibitors

Winnipeg, June 30th, 1902. Winnipeg, June sorth, 1995. Winnipeg, Manitoba, and the Ter-ritories will celebrate Confeder-ation and His Majesty's happy re-covery by the biggest, gayest and noisiest holiday that has been wit-nessed here for many years. Disappointed, under such unhappy circumstances, of our coronation holiday, we intend to-morrow to make things smoke in true earnest. What would the human race become without such times of public rejoicing! We are sure that young and old, in East and West, will equally enjoy celebrating the thirty-fifth birthday of our fair Dominion.

"What are the crop prospects throughout the West?" is the question that every letter from the East is asking and will be asking for the next month or six weeks. Will the granaries overflow as last year, will men be scarce and wages high, will farmers be obliged wait months for the thresher and months longer for cars to carry his grain? Will men be required by thousands from the east and west and south, to reap the prairie har-vest? All this and more is includ-ed in the question, "What are crop prospects?" The season has now reached a critical point. Up to the present there has been rain and sunshine in happy alternation, bringing the crops to a maturity that at this date has never been excelled, even in the most favorable seasons. Henceforth we wish for less moisture and more warmth, and if these are granted by a kind Providence all will be well, and last year's scenes of leverish activity will be repeated.

In any case we know that the harvest will be heavy. The straw stands very thick and whether ripening is hastened by dry weather or retarded by wet, the labor of harvest is certain to be immense. The supply of farm hands will not this year be supplemented by any striking section hands, as was the case last season, and there is little doubt that as many men as last season will be sought in the east. Will they be obtainable? When the call goes forth will the volunteers be found ready? Last year, we are told, the farmers of the east suffered much hardship through the western pilgrimage of their laborers. Will this affect our labor supply for the coming season? Are we to have a repetition of the "Labor Problem?"

The plowing match is becoming on exceedingly popular institution in Manitoba. There are now at least six big annual events of this kind and one, held at Brandon, offers the provincial championship. The matches are held under the management of the Farmers' Institutes and attract large crowds of interested spectators. The competition is always keen and the competitors numerous. In former

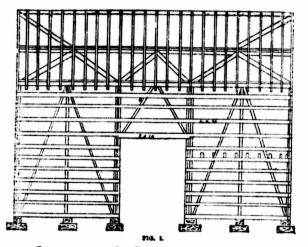
years the implement men have contributed the bulk of the prizes; this year, however, they have cut off all this class of advertising and cash prizes are now largely offered instead. Substantial prizes of \$50, \$40, \$25, such as were offered at one of the matches, are well worth trying for. Some five years ago the first of these matches was held and their present popularity bespeaks a large increase in their number in the near future.

Exhibitors of live stock at the Winnipeg Industrial Exhibition which will be held July 21st to 25th, will find a marked improvement in the accommodation in the stables and sheds. The feeding ar-rangements have been improved, and enlarged storage provided, while above the stables and sheds, rooms have been arranged as sleeping apartments for attendants in order that these may be constantly near their stock. There will be a splendid supply of city water in the live stock stables this year, and in other respects the accommodation has been improved to a marked degree.

Much interest is being shown by United States breeders and quite a number of well-known stock exhibitors from the "other side" are already making entries. The man-ager of the Industrial Exhibition has been advised by O. H. Swigart, the owner of the Avondale herd, of Galloway cattle, at Champaign, Ill., that he will attend the fair this year. Letters have been received by the fair management from live stock men in Minnesota and Dakota asking for information in regard to exhibiting here, and quite a number will no doubt try to carry off some of the handsome premiums offered.

By some mischance in our report of Mr. Walter Lynch's Shorthorn sale we were made to say that Rosette XV., sold to Hon. Thomas Greenway for \$415, was the only animal in the herd not bred by Mr. Lynch. The herd bull Scottish Canadian, imported in dam, was the animal referred to. It is a tribute to the breeder, though no disgrace to the animal, that the head of the herd sold for less money than some of his get.

A party of 206 Welshmen from Patagonia arrived in Winnipeg last week on their way to Saltcoats, in which locality they will settle. They are loyalists in every sense of the word, their object in making so long a trip being to once again live under the British flag. The party came via Liverpool from Chubut, on the East coast of South America. The blessing and protection of their patron saint has surely followed these travellers, for since reaching British soil numbers have been increased. There is rejoiciag in five families, and the omen is taken as auspicious for the new colony. St. David for ever !



Improved Barn Building

Barn building is an important problem with the Canadian farmer to-day. In many of the older parts of the country the buildings of twenty-five or thirty years ago need to be replaced by better and more up-to-date ones. Vears ago. when timber was plentiful and the farmer could supply the larger share of the material required himself, the building of suitable barns and outbuildings was not the problem that it is to-day. Besides. along with the advanced ideas in regard to the breeding and raising of live stock, has come the need of better built and better ventilated farm buildings than were thought necessary forty or fifty years ago. To secure these more up-to-date

buildings in the cheapest and best way is no doubt the aim of every farmer to-day. We reproduce herewith several diagrams taken from the Michigan Farmer, showing some improved plans for barn building. A few years ago we gave a description of the Shawner-Lockhart system of erecting plank frame barns. Fig. A shows the bracing of the inside bents in this system. The difference between this latter system and the one taken from the Farmer is only in the matter of detail. One advantage of the plank-frame system is that it can be readily adapted to all conditions which confront the individual builder. So long as the

given mechanical principles are followed the details of construction can be varied so as to make any desired form or dimensions of frame, style of roof or convenience of inside arrangement. The writ-er in the above journal describes his plans in detail as follows:

"The balloon and plank frame has for more than thirty years been before the building public. Its success and practicability have been fully demonstrated. The principle of construction that I show here in these illustrations warrants its use by all who wish to erect in a cheap and substantial manner, any kind of barn. The plank frame barn may be reckoned among the prominent inventions of the present generation, and must turn the attention of farmers of moderate means to these successful plans of construction, which have demonstrated economy in lumber and labor, and at the same time preserved the full strength and quality and security so generally accorded the "old fogy" principles of timber framing. Light sticks, uninjured by cutting mortices and tenons, with short bearings for each stick from foundation to rafter, constitute improvements introduced in my plank frame barns.

"If in erecting a barn we can so use the materials that the strain will come in the direction of the fiber of some portion of the wood-

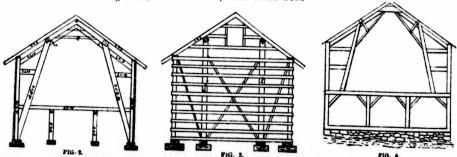
work, we can make inch boards answer a better purpose than footsquare beams. This application of materials is the reason of the strength of the plank frame barns. The invention of the plank or balloon frame belongs to no one person. No one has a patent on it, and no one claims it as an invention, and yet the art of construction is one of the most sensible improvements that has been made. A man and a boy can attain the same results that ten men could on

same results that the here in ame. an old-fashioned timber iname. "The illustration, Fig. 1, repre-sents a side elevation. The posts are 24 feet high, and the barn 50 feet long-two center bents. The posts are made of two 2x10 planks spiked together. The purline plate is made of three pieces, 2x12, spiked thoroughly together.

"Fig. 2 represents a section of middle bent. The false rafter cuts off at A after the raiters are in place. E is a 2 x 4 nailed on to rafter for a scaffold bracket, for convenience in putting up hay track and spiking points of rafters to-gether. The slanting posts are made of two 2x12's spiked togeth-The sizes of other timbers are er. marked on elevation.

"Fig. 3 shows end view of barn I usually use 8x10 square frame. timber for the purline posts. The nailing girts are 284, and should be spiked on with two 30-spikes at each bearing. two 30-penny This frame, as shown, is set upon stone abutments. Each pier should have a good stone footing, at least 20 inches square. A frame of this kind may have a joist and floor, put in each side of the barn floor. giving all the advantages of a basement barn, with quite a saving in labor and material.

"The modern basement barns that are being built in northeastern Ohio are well lighted and ventilated, and are not damp and gloomy. They are not set into a bank, as was the practice years ago, but are set on top of the ground with the whole basement storey above ground, with windows on all sides, letting in the sunlight. The approach to the upper part of the barn is placed about 10 or 12 feet from the building, with a bridge from it to the barn floor. These barns vary in cost from \$700 to \$5,000, according to the size and amount of work and finish put upon them. The basement barns are taking the lead in this section."



Correspondence

Commuted Statute Labor in Pickering Township

Editor The Farming World :-

In reply to your favor of the 6th inst., I beg to say that the commutation system for Statute labor was adopted in the township of Pickering in 1900, so that we are now having our third year's experience of it. Public opinion to the advisability of commutation as was very evenly divided at the time of its inception, and during the first year considerable dissatisfaction was created, due in part to prejudices and local jealousies, but also caused by the inexperience of the Road Commissioners and the lack of control by the Council of the Municipality. The system worked more smoothly during the second year, the Commissioners having gained experience and taking pains to make a more equitable distribution of the expenditure and work. Care was also taken not to grade any more on leading roads than could be gravelled that season, thus avoiding a mistake that had been made in some in-stances in the previous year. The Council also now exercises a greater supervision over the Commissioners than formerly. This year the Council raised the rates of pay for Commissioners, men and teams and no difficulty was experienced, as in former years, in obtaining them when required, and the work was more expediously performed than formerly.

Under the old system, the Township was divided into 119 road divisions, with an overseer for each. Under the present system we have 16 country divisions and 5 village divisions. It is much easier to obtain 21 men who understand road-making, etc., than 119 such. The Council can now exercise a supervision over the road commissioners, which was hardly possible when they numbered over one hundred. It is evident that the performance of Statute Labor under the old system is unlair, wasteful and expensive. Unfair in this, that while in some divisions good and faithful work is performed and under the supervision of competent overseers, in other divisions the work is done in a "go as you please" fashion. In drawing gravel the ratepaver can suit himself as to the quantity to be taken at a load, and any kind of an improvised box will answer for the purpose. Sometimes they forget to do any work at all. I have under-stood that this condition of affairs exists to some extent at least wherever the old system still obtains. It did exist here under the old system. The practice of passing the overseership around was not a good one, and resulted in a composite style of road-making and repairs, and sometimes the undoing one year that which had taken labor and pains to do in the previous one. The overseers were allowed an abatement of their statute labor for the time spent in discharging their duties. As they were not required themselves to labor, while the present road commissioners are, quite a saving has been effected in that respect.

In places where the statute labor was formerly put in in a haphazard way and sometimes not at all, the roads, of course, would get out of repair and have to be made right by larger grants from the Town-ship funds than required in the districts where the statute labor was properly and fully performed. Therein lies the great unfairness of the old system. The ratepayers, who with their statute labor keep their local roads in a good state of repair have to help keep up the roads where the statute labor has been wasted or left undone. They have to meet a double imposition. The commutation tax, however, cannot be shirked or slighted. All must pay alike.

In this township the rate for commutation is 60 cents per day, and the money collected therefor in each road division is expended in that division. The toad commissioners are appointed annually for the year, commencing on May 1st, and their first work is to make an inspection, in company with a member of the Council, of all the roads, culverts and bridges in their division, noting the needs of each. They then attend to the repair of all culverts, washouts, etc., requiring immediate attention, decide upon the places to be graded and gravelled, reports to the council respecting any repairs required to bridges, etc., and the member of the council and commissioner makes a recommendation as to the appropriations of money from the township funds required for gravelling, etc., to supplement the commutation fund of the division. The municipality has two road-graders, each being operated in a certain part of the township. The council sends two men and a team with each grader, the commissioner hires the extra teams required and pays therefor from the commutation fund. The appropriations made by the council from the township funds are now expended by the road commissioners and in the same manner as the commutation moneys are expended, viz., by hiring men and teams. Ratepayers having proper tools, vehicles and teams are given the preference, in their respective localities, in expending the commutation and grant moneys. Only bridge work is now done by contract. The abolishment of the contract system has resulted in much better work being accomplished than formerly, and at no greater ex-pense. The money expended is well distributed among the rate-payers throughout the township, and in that way lightens the burden of taxation. The rates 0

pay allowed are, for commissioners 15 cents per hour; team with driver, 30 cents per hour; man working under commissioner 12¹/₂ cents per hour. Faithful work is exacted and cheerfuly given. In drawing gravel a good load is required in every instance. The work is mostly performed in May and June. When the council now pays for a c. vard of gravel they are well satisfied that a full yard was placed on the roads. The commissioner keeps the time of each person employed and puts in a paysheet (on forms furnished for the purpose), to the council, certifying as to same. The whole amount is then paid to the commissioner, who disburses it to those entitled.

In the winter season, a number of overseets are appointed to assist the commissioners in keeping the roads free from snow blockades. This work is a source of great expense here, last winter costing the municipality about \$900. A bonus is paid for the construction of wire fences on the boundary lines of roads, and having recently been increased to 25 cents per rod, a great many such fences are being constructed, and will, no doubt, cause a material reduction in the future expense of keeping the roads open during the winter season. We find wire fences to be very effective in preventing drifting.

Public opinion is now strongly in favor of the new system in this township, in fact all opposition to it has died away. It is generally admitted that much more and better work is being accomplished than under the old plan. Although

FAITH IN WHEY

Few have any faith in whey, but there is really nutriment in it. Many ray it is death to calves, and so it is, generally, but this is not because of the lack of nutriment in it, but because of the inability of the calf to assimilate it, and as food that is not assimilated will invariably cause either scours or constipation it is death to the calf. A pure aromatic is not a food. Whey is a food but there is nothing aromatic about it. Now, by combining Herbageum which is a pure aromatic but not a food, with whey which is a food, but not an aromatic, a combination is obtained which is a food that can be assimilated, and in this way the trouble of scours and that of constipation may be overcome even while feeding whey. On this point Mr. David Osborne, of Arden, Ont., some time since stated that he used 20 lbs. of Herbageum with seven calves; fed it with fresh whey and they did splendidly. They ate the whey with a relish.

The Beaver Mfg. Co. of Galt are the sole manufacturers of Herbageum, and claim that in the preparation of this aromatic nature's lines are closely followed.

the commutation system in this township is by no means a perfect one, I think a few more years will see it very much improved. The purchase, by the municipality, of a stone crusher and a road roller, is being strongly advocated, and no doubt would be an excellent investment, as there is plenty of stone in most parts of the township, and although gravel is not by any means scarce, much of it is not of very good quality, and permanence in roadways cannot be attained by the use of inferior gravel. Some think the road di-visions could, with advantage, be reduced to six or eight-that is outside of the village divisions. but it is a matter that will stand consideration, as the township is large and has about 242 miles of roads (besides about 33 miles of townlines) to be maintained and kept in a sale state of repair.

Donald K. Beaton.

Tp. Clerk, Pickering. Whitevale, Ont.,

June 19th, 1902.

Exporting Pure Bred Stock to the United States

Editor The Farming World :

Breeders of pure bred stock, desirous of sending animals to the United States, frequently write me for information in regard to the regulations governing the importation of Canadian stock into that country. For the benefit of such breeders the following summary of these regulations is given

1. All animals imported into the United States from Canada must be accompanied by an affidavit made by the owner or importer declaring clearly the purpose for which said animals are imported. viz : whether for breeding purposes, for milk production, for work, grazing, feeding or slaughter. whether they form part of settler's effects, or whether they are horses entered for temporary stay as provided by the regulations. Said affidavit must be presented to the Collector of Customs at the Port of Entry, who will decide whether the animals are entitled to entry under these regulations, and who will notify the Inspector of the Bureau of Animal Industry in all cases where the regulations require an inspection to be made.

2. Horses for breeding, racing, show and sale purposes, for graz-ing or for work, must be inspected at the Port of Entry.

3. Cattle for breeding purposes. milk production, grazing or feed-ing, must be inspected, and must be accompanied by a certificate signed by a Canadian official veterinarian, stating that no contagious disease affecting cattle excepting tuberculosis and actinomycosis has existed in the district in which the cattle have been kept for six months prior to the date of impor-tation. The owner must present an affidavit that said certificate refers to the animals in question.

4. A certificate for cattle over six months old for breeding pur-

poses, and for milch cows must also show that they have been sub-mitted to the tuberculin test, and found free from tuberculosis, giving the date of testing, with a char of reaction, and a description of the cattle with age and markings.

5. Any animals may be required to be inspected at the Port of Entry, and any animal showing symptoms of tuberculosis may be subjected to the tuberculia test, upon instructions from the Chief of the Bureau of Animal industry.

6 All sheep imported into the United States for breeding, grazing and feeding must be inspected and must be accompanied by a certificate signed by a Canadian official veterinarian, stating that no contagious disease affecting sheep has existed in the district in which the animals have been kept for six months prior to the date of importation. The owner or importer must also present an affidavit that the said certificate refers to the animals in question.

7. All swine imported for breeding purposes, grazing or leeding shall be accompanied by a certificate signed by a Canadian official veterinarian stating that no contagious disease affecting swing has existed in the district in which the animals have been hept for six months prior to the date of impor-The owner or importer tation. must present an affidavit that said certificate applies to the animals in question.

8. All cattle, sheep and swine tor breeding purposes, graing or feeding, when not accompathe required certificate and affidavit must be detained in quarantine for one week at the expense of the owner or importer, under the supervision of the inspector in charge. Animals found free from disease at the end of this time will be released.

9. All cars used in the transportation of animals must be first thoroughly cleaned and then disinfected by whitewashing with a mixture of lime and carbolic acid before the animals are placed therein. Shippers must see that this is done before the animals are loaded, as unless these regulations are complied with the cars will not be admitted into the United States.

The regulations of the Treasury Dept. of the U.S. direct as follows :

10. No animal for breeding purposes shall be admitted free of duty unless the importer furnishes a certificate of the record and pedigree in the form hereafter given, showing the animal to be pure bred and that it has been admitted to full registry in the American Book of Record established for that breed, and that its sire and dam and grandsires and grand dams were all recorded in a book of record established for the same breed. An affidavit by the owner or importer that such animal is the identical animal described in the said certificate of record and pedigtee must be presented. Unless the cer-tificate of record and pedigree is

produced the animal shall be considered dutiable. In case such cer-tificate is not at hand at the time of the arrival of the animals, duties shall be estimated thereon and deposited, and the animals delivered to the importer, who may within ten days file a written stipulation with the collector to produce the requisite certificate within six months from the date of entry, whereupon final liquidation of the entry will be suspended until the production of the certificates, or the expiration of the six months. Upon the production of the certificate in due form within six rionths from the date of entry, the amount deposited shall be refunded.

Form of record and pedigree to be used for imported animals : Pedigree of

DN

sire	Sire
io	No
	Dam
	No
am	Sire
o	No
	Dam
	No

I hereby certify that the above bred and has been duly registered in the which is the book of record controlled by this Association for the . breed of

Dated at

No

Sgd.....

Sec'v of..... None of the Canadian stud herd or flock books are recognized by the United States Government, and in order to secure free entry for breeding purposes, all animals must be registered in the American books or in the European books of record.

> F. W. Hodson, Live Stock Commissioner.

Breeding Polo Ponies

BECOMING THE WORK OF SPECIALISTS TO RAISE THEM

The rapidly increasing popularity of polo, says Country Life in America, has made a good demand for polo ponies. The requisites of a good polo pony are so rare and unusual that really first-class ones are worth a great deal of moneymore than an equally high-class hunter. In England the majority of the good ones are thoroughbreds, but it is rarely that a thoroughbred can be found of the requirements of size and endurance. breeding of polo ponies has become a recognized industry in Texas and elsewhere, and wherever such an end is sought a thoroughbred or Arab sire is kept. Thus considerable breeding has been infused into the polo pony of to-day. Hardly one animal out of a car load shipment ever turns out to be fitted for the play. A prominent pony may be worth several hundred dollars, while a first-class pony may be sold for one or two thousand dollars, or frequently whatever their owners will take for them.

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially Representing the Farmers' Interests

Edited by JAMES FOWLER

Sugar Beetlets

Use your cultivator freely, and keep down the weeds.

Remember you can hoe the sugar into the beets. Five times are better than four.

Mr. W. H. Gilbert, of Bay City, has 2,200 acres of sugar beets under contract this year.

A deputation from Galt visited Michigan recently, looking up capitalists to built a sugar factory.

Hill planting, if successful, will be a large saving in seed and labor, and the results should be good.

Hill planting is being tried on a larger scale this year, one party having too acres under experiment.

We do not believe that a single barrel of all-cane sugar has been put upon the Canadian market for months.

Seven capitalists from Michigan have investigated the Ontaria Sugar Co.'s proposition at derlin, and taken stock in the company.

Some difficulty has been experienced by the farmers this year in using an ordinary seed drill in sowing their beet fields. They now see where their mistake has been.

Many inventors are at work, trying to perfect a beet puller and topper. Within a short time, all the work upon the beet crop will be done by machinery.

Labor saving devices is the one thing needful to satisfy the beet growers, but it is natural to expect if the growing of sugar beets is made too easy the price of the crop will be reduced in proportion to the cost.

The fruit preserving time is on, and great quantities of sugar are being used. You will please bear in mind that 90 per cent, of the sugar imported into Canada is beet sugar, and the reports that beet sugar is not suitable to preserving purposes, is entirely wrong, and circulated for a purpose.

Farmers who have had to replant their sugar beets this spring should remember that such a necessity might not arise again for years. The season has been uncominonly backward with the cold, wet weather and a great many other crops have had to be replanted as well as the beet crop.

The Crops

The few days of fine warm weather has made a wonderful change in the beet crop, and one can almost hear the beets grow. A trip through the different sections where beets are now under cultivation would convince the most skeptical that beets

can be profitably grown in this province. At Berlin the thinning has been finished for some time, and the farmers are busy with the cultivator, the indications are that more than an . . will be secured, and Prof. Shuttleworth, the agriculturist in charge of the acreage for the Ontario Sugar Company is confident that all the beets that can be worked up at that point will be secured. At Dresden the work of blocking and thinning is under way the wet weather having delayed the work somewhat. and there has been some difficulty in obtaining the help required to do the work. On the whole the crop is a fair one. In some of the outlying districts the farmers have not given the attention necessary for a successful demonstration of the soil and conditions surrounding the district and this will have a depressing effect on next year's contracts. At Dunnville where several hundred acres are being grown for the Dresden factory, the farmers have suffered by the amount of rain fallen and in most cases where the crop has been drowned out it has not been researed, so that some farmers have been discouraged and will not grow beets another year, especially for a factory away from home. At Wiarton the same conditions prevail, too much rain in some places, but generally a very fair average tonnage is looked for. The season so far has been rather unfavorable, but with warm weather, what has until now appeared to be a backward crop, has taken such a start as to fairly surprise the farmer, who has had very little experience in raising sugar beets. As a whole, the farmer is delighted with the prospects, and will largely increase their contracts next year.

Berlin

The factory at this point is rapidly being installed; large quantities of machinery are on the ground and 200 men are at work, commencing on the 14th of the month at least 300 more will be at work. As soon as the electric light plant is installed three shifts of eight hours each will be worked upon the plant and will be worked to the utmost capacity. Another engineer has been sent on by the contractors in order to accomplish this work. The Directors, with some of their larger shareholders, visited the works last week and decided to increase the capacity by adding certain additional machinery and the plant will be the finest that money can secure. The contrac-tors say there is not a shadow of a doubt that the factory will be completed and slicing beets by the 4th day of Oct.

Mr. G. S. Dver will be the Technical Superintendent this season. All the expert sugar workers have been engaged and ready to take over the factory, as soon as completed. The beet crop is a magnificent one and the factory will have sufficient quantity of beets to give them a long season's work. It is expected at least 15,000,000 pounds of sugar will be turned the first season.

The farmers who are growing beets this summer are thoroughly satisfied with the out-look and the prospects for the crop, and are now ready to increase their acreage and contracts for next season, as they have found it so far very much less work and easier handled than they anticipated. The treatment the farmers received from r company, has satisfied them that the farmers' interests are the company's interests, and that there will be no difficulty in any way arising between them.

The success of the sugar factory at Berlin is assured.

Dresden

The work upon the factory at Dresden is progressing very rapidly, a large force of men have been at work there. Some contractors for Sebawan, Michigan, have been brought there and put to work on this factory. Nearly all the machinery is upon the ground and the work of installing it will proceed very rapidly.

The acreage for this factory is satisfactory for the first year, but a large additional acreage will have to be secured the following years to run the factory to the fullest extent.

The American Construction Company, who are building this plant, are determined that this plant will be the best in the province, and quite a rivalry exists between the three concerns erecting plants at three different points. It is expected that this factory will be completed and ready for operation by the 1st of Oct.

Wallaceburg

The work at the sugar factory is almost completed and the factory will be ready for operations as soon as the beets are ripe.

In some respects the Wallaceburg Sugar factory has an advantage over other factories, as they have had more time in which to complete their factory, the foundations having been put in last year and a good deal of the work been done during the winter, there being no necessity for hurrying the work, it may perhaps be better done than when crowded for time. The reports are very favorable in the immediate vicinity, but some difficulty is being experienced in getting the farmers in the extent of territory covered by this factory, to follow the directions of the agriculturist or inspectors. The territory covered by Wallaceburg Sugar Company extends from the St. Clair river to Galt, acreage contracts being taken at nearly every port on the G.T.R. line, between these two places.

It is expected that at least 75.ooo tons of beets will be worked up by this factory.

Wiarton

Work is progressing rapidly and contractors are satisfied that they can complete the factory by time of working the crops of 1902.

The difficulty experienced earlier in the season has changed the plans to a certain extent and has delayed the work, but the engineer in charge is satisfied with the work being done.

The beet crops in some respects are unsatisfactory at the present time, but with the advent of warmer weather, will no doubt take a decided change, the season being several weeks later than in other parts of the province. The beet crop is not quite so far advanced and the rainy weather has drowned out the crops.

The territory covered by the Wiarton Sugar Company extends over a wide area, and it is much more difficult for the agriculturist to supervise this, but satisfactory work is being done by a corps of inspectors and a sufficient quantity of beets is expected to carry out the factory for the entire season.

Strathroy.

Strathroy is in the field for a factory for 1903 if results of this year's operations in sugar beets prove successful. Upwards of 250 acres are under cultivation in the neighborhood of the town and to show that the farmers went at it cautiously most of them have only taken one acre. There are two syndicates of 10 acres each and one very progressive farmer, Mr. Geo. Shepherd, of Adelaide, has put in 3r acres, 29 of which the assistant manager of Wallaceburg Beet Su-Board of Trade took the subject up last fall and all winter kept the subject a live one by holding meetsubject a five one by notating meet-ings and distributing literature among the farmers. The continued wet weather has had its effect in many places but it is hoped that on the whole the damage will not be serious.

Pointers for Beet Growers

MARKETING THE BEETS

The beets furnished a factory are generally produced within a radius of between 50 and 75 miles, those coming by wagon being always more d-sirable than those brought in by car, owing to the fact that they are fresher, and slice better. The wagons employed are built large enough to hold several tons and are generally drawn by four to six horses. Frequently eight to 10 horses are used, bringing in several wagons, one trailing behind the other.

Before loading, the farmer places in the bottom of the wagon a large rope net, which he fastens at one side. Arriving at the factory, the wagons are weighed, then taken to the beet shed, where the process of unloading is accomplished in about half a minute. Hooks attached to a beam are caught on the loose end of the net which hangs over the side of the wagon, the net is drawn up and the beets go tumbling out on the other side into the beet shed. The wagons are then weighed again and the net tons of beets delivered by the farmer are placed to his credit.

As these beets tumble out of the farmer's wagon, a boy catches a basketful, which he takes to the beet laboratory. This basket is weighed to tip the scale exactly at 50 lbs. Then the beets in the basket are dumped into a machine and thoroughly washed, and when taken out are examined to see if they have been properly topped, and if not, a boy tops them correctly. The beets are then put back in the basket and weighed on the same scale, and the difference in weight is the tare that is charged up to the particular load of beets.

Five or six of the beets are taken out and ground into a mash, which is folded in a cloth and put under heavy pressure. The juice taken from these beets, after being purfied, is put into a polariscope, which indicates the saccharine contents. The farmer then receives for this particular load the price set as specified in his contract for a load of beets of such a test in sugar.

The farmer, if he desires, may employ an experienced tareman to see that the weights and tests of the factory are correct.

IN THE BEET SHEDS

The sheds of the larger 'eet sugar factories are about 300 feet in length, having V-shaped bottoms, with slats on the sides to provide perfect ventilation. Underneath is a water-tight canal about two and one-half feet wide and two feet deeps



which has a gradual fall from the further end of the shed to the washhouse of the factory. Movable slats cover the canal, and when it is desired to empty the shed and send the beets into the factory the water is turned on, the slats removed and the beets are floated into the wash-house.

After all the dirt has been taken off the beets are thrown into an endless chain elevator, which carries them to the top of the house and dumps them into an automatic scale, which opens and shuts itself and registers their weight as they pass through into the slicer. Here the beets are cut up into "cossettes," which are pieces about as long as a lead pencil and cut in a V-shape, so as to open up all the little octagon cells in the beet, which are full of the sweet substance going to make sugar.

From the slicer, the cossettes are carried to iron receptacles, somewhat resembling large bottles. These receptacles are 14 in number and are called the "diffusion battery." They are arranged either in a circular form or in a straight line and cach receptacle is so made that it can be opened at both the top and the bottom, which is covered with a wire sleve.

After the battery has been filled with cossettes, the tops are securely lastened. Pure water, which is forced in at the top of the first cell is carried down through the cossettes and through the sieve at the bottom, where it is forced through a steam coil into the top of cell same process, and passes through the same process, and passes through all the 14 cells into a receiving tank.

The Button Brush

A SHRUB WITH SWEET SCENTED FLOWERS IN JULY.

In July and after, you still find in full blossom one of the most curious and interesting of all our flowering shrubs-the button-brush. This is a plant growing thick along the borders of streams and deep swamps, and in still bays and lagoons of lakes. It grows practi-cally in the water, on tussocks built up of its own roots, often covering acres of swamp. The striking thing about the plant is its blossom; the single flowerets ar? massed together into a perfectly spherical head with a mist of delicate, protruding stamens-the kind of flower a Bohemian glass-blower might invent in his sleep. The separate flowers, white, though not quite a pure white, are slender, sug-gesting in shape a honeysuckle. These feathery balls, often an inch and a half in diameter, are very sweet, especially towards night, with a fragrance much like that of the golden lily. All day they swarm with butterflies, and after dark the returning angler is met and guided by wave after wave of sweetness, the breath of some perfumed swamp .- Country Life in America.



Will Contract or complete Plants in any part of the world or Brewers, Distillers, Best bugar Factories, Reflueries, Glucose Works, Etc., Etc.

The Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep and Swine Breeders' Association, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHBEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees :--Cattle Breeders', \$1 ; Sheep Breeders', \$1 ; Swine Breeders', \$2 BENEFITS OF MEMBERSHIP.

BENEFITS OF MEMBERSHIP. Tach member receives a free copy of each publication issued by the Association to which he belongs, turing the year in which he is a member. In the case of the swine Breeder's Association this includes orgo of the swine Breeder' Association is allowed to register pigs at 50c, per head; non-member of the swine Breeder's Association is allowed to register sheep at 50c, per head; while non-members are charged \$100. The name and address of each member, and the stock he has for sale are published once a month, one opies of this further to an advantage of the stock in the second and probable buryer resident in Canada, the United States, also to prominent breeders and probable buryer second in the state of the same and address of the second and the stock in the the bonnine threeders and probable buryer second in the state of the states and elsewhere. tion to which he belongs; that is at only reallowed to advant be stock corresponding to the Association, the second of cattle, sheep, and swine for sale will be published in the finate the second in the other is the sociation of cattle, sheep, and swine for sale will be published in the finate stock are required to month. The first of cattle, sheep, and swine for sale will be published in the finate stock are required to month, the moment by letter on or lefore that they may be included in the finate stoce, are, and set of the published in the most condensed form. As a proving the store of the bound of the bound the store of the bound of the bound the store of each will be published in the most condensed form. As a proving the store of the bound that the store of each month, the mane by letter on or lefore that they may be included in the finate store. The store of the bound the bound the store of the bound the bound the store of the bound the sto

Domestic Help Wanted

FARM HELP EXCHANGE.

PARM HELP EXCHANGE
The Farm Help Exchange has been started with the domestic labor and the employees. Any performance of bringing together employees of farm of any person wishing to employ help the following: the probability of the

Help Wanted.

Wanted .- At once man and wife, without children, to work on a dairy farm, 85 miles south of St. Paul, Minn. The man must be competent and kind to stock his wife to keep house and board men. Wages \$300 a year, more the second year if adapted to the work. Furnished house and table supplied, The milk is sold, not manufactured on place. Two single men that are temperate and like this kind of work can secure places at \$200 per annum. No. 115. a.

Wanted .- A young man to work on a farm in Simcoe County. Every facility for giving any young man, willing to learn farming, opportunity to obtain a practical knowledge of farm work in all its branches. No. 111. b.

Wanted .- A young man to work on a farm near Woodstock. One having experience in taking care of stock preferred. Wages from \$16 to \$20 a month. No. 112. b. b.

Wanted .- A man for two months to work on farm near Toronto. Wages \$20 to \$30 a month according to ability. If satisfactory will engage by year. No. 113. b.

Wanted .- A boy over 18 years of age to work on farm near Toronto. One with some experience preferred. No. 113. h

Wanted .- A girl to work in a farm house in Halton County. Farm situated 21/2 miles from town. No outside work, good wages. Four in family. Permanent situation if satisfactory. No. 114. b.

Wanted .- A housekeeper, a thoroughly good woman, middle age preferred, to take charge of the work on a 100 acre farm where dairying is done. Woman will not be expected to do milking. Must be an economical housekeeper, with first-class references and must be willing to work. May come on trial for one or two months, and if satisfactory will be engaged by the year. House very comfortable, heated with hot water and supplied with all modern conveniences. Three men employed all year. No washing to do except for the Manager. Methodist, Presbyterian and English churches within two miles of farm. Neighborhood good. Permanant home to sight party. No. 107. b.

Situations Wanted.

Wanted .- A position as herdsman or looking after stock by a man who has had experience in this work. No. 603.

N.B.-Where no name is mentioned in the advertisement, apply to A. P. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.

Farmers' Institutes.

Farmers' institutes. We have a send the superintendent of Farmers for any send other other send the send the superintendent of Farmers for any send other others, general informa-tions to determine the publishe attraction information of the publishe send the send to any the send the send the send to any send the send the send the send to any send the send the send to any send the send to any the send the send to any send the send to any the send the send to any send the send to any the send the send to any send the send to any the send the send to any send the send to any the send the send to any send the send the send the send the send to any send the send the send the send the send to any send the send the send the send the send to any send the send the

Annual Meetings of Women's Institutes.

WEST BRUCE.

This annual meeting was held in the Town Hall, Port Elgin, at 1.30 p.m., on June 11th. The secretary and autitors read their reports which were adopted.

After discussion it was decided to hold the future meetings at the same points as last year, unless by special arrangement. With the ex-With the exception of the president, an entire change was made in officials, the officers now being as follows:-

Treas., Miss M. Elliott; Directors, Mrs. Powell. Mrs. Cummings, Mrs. McEwing, Mrs. F. Elliott, Mrs. Lo-vell, Miss Black, Mrs. Wismer, Auditors, Mrs. Campbell and Mrs. Wismer.

At 4.30, after the business session, upwards of 120 members and invited guests enjoyed the luncheon provided. The addresses of the president and secretary were followed by a programme of music given by the Misses Black, and complimentary speeches by a number of the gentlemen present.

SECRETARY'S REPORT.

I have the honor of submitting the second annual report of our organization. Considering that we are still a young organization I think we may congratulate our-selves on the progress we have made during the past year.

In order to show you how our work is appreciated by our Superintendent, I will quote from one of his letters in which he says :- 'You are now in a better condition than many Farmers' Institutes were a few years ago, and you are doing better work than some of the Farmers' Institutes in the province now

During the past year the Port Elgin Branch held 14 meetings, including the annual, and the attendance, interest and amount of va-luable information gained, must be considered very satisfactory. Three prepared papers have been given, thirteen extracts on various subjects were read, and four addresses delivered

On the 13th of January last, I accompanied Mrs. C. Campbell to Goderich and Tara, where we were successful in organizing a branch Institute of 22 members, in charge of Mrs. B. Sinclair as president, Mrs. W. R. Hilborn, first vice, Mrs. G. Hooper, second vice, and Miss C. Smith, secretary, Miss Brunton, treasurer, and Miss Aggie Douglas, as librarian.

On the 2nd of May, the president and I visited this branch, and found it in a very flourishing condition, the membership having been increased at each meeting held, un. .

President, Mrs. McTavish; Vice-President, Mrs C. Nicholson; Sec.-

til now they number 36. The Port Elgin membership being 51, makes a total of 8; an increase of 14 over last year.

Our financial statement is as follows:--

Bal. on hand at last audit. \$13.40 County Council Grant...... 10.00 Legislative Grant..... 10.00 Farmers' Institute Grant ... 10.00

Our expenditure has been \$43.22. leaving a balance on hand of \$21.93

ADDRESS BY MRS. JANET S. M'TAVISH, PRESIDENT WEST BRUCE WOMEN'S INSTITUTE.

The wheel of time rolls swiftly on. Another year has passed, and we are met for our second annual meeting.

Our Institute has now been organized for a year and a half, and we have great reason to congratulate ourselves on the success we have already achieved, and hope we may progress in the same way in the future. At our last annual meet-ing, I think there were fifty-two members on the roll, while we have now eighty-six. A branch has been organized at Tara, and with very gratifying success. A number of the ladies there seem to be very much interested in the work, and all seem to enjoy the meetings.

We have continued throughout the year to hold our monthly meetings, and find an increasing interest and attendance; and although there are still a number who do not come out regularly those who do attend find them beneficial and cheering. That we have latent talent in our midst, which only needs to be developed, is evidenced by the fact that two of the papers read at our meetings were embodied in the Superintendent's report for 1901, as being worthy of a place there.

I would like to mention a mistaken idea which seems to prevail in some quarters, which is that we want people to join our Institute in order that we may instruct them or tell them something which they do not know. Now this is very far from the real state of the matter. We want you to come out and talk over matters, and give us your ideas and experience, and also to share in the benefits to be derived from our library. There is no one who knows so much that they cannot learn more, and we generally find that it is those who know the most that are the most anxious to learn, and how can we increase our knowledge more than from good books? In addition to our library there is the literature sent to each member from the department, all of which will be found profitable. We find that ministers, lawyers, doctors, and every other man who wants to keep abreast with the times, and with his profession, reads and studies everything connected with it, and if we want to make progress we must do the same. It has also been found that discussing any subject is a benefit to those interested in it, and serves to broaden our

ideas and give us new and useful views. What makes the Egyptian farmer cling to his crooked stick for cultivating the soil, or the Indian woman to her primitive methods of cooking? It is simply the lack of contact with other minds which would have helped to develop their thinking powers, and to show them other and better methods; in a word, it is because they never enjoyed the benefits of either Farmers' or Women's Institutes.

We have also during the past year, added a number of books to our library, all of a useful nature, and whatever department of household economy you may be interested in, I think we can supply you with some book which you will find helpful. Are you interested in gardening? Then we have "The Vegetable Garden," and "Flowers and how to grow them." Is it in the household? Then we have "First Principles of Household Management," "Home Sanitation," "Dust and its Dangers," and "Diet, in Sickness and in Health," with others bearing on the same subjects. Are you interested in cook-ing? If so we have "The Chemistry of Cooking and Cleaning, "Practical Sanitary and Economic Cooking," "The Kitchen Magazine" and "Good Housekeeping." Do your tastes lie in cutting and making garments for yourself and your family? Then we have "Long-man's Complete Course of Needle-work," and others of the same nature; so that although our library is not yet as large as we expect it to be, you will at least find something which will both interest and instruct you.

I have to thank the directors for their hearty co-operation, and I am exceedingly sorry to say that I hold in my hand the resignation of our very efficient and pains-taking secretary, Mrs. Wismer, who owing to domestic duties, wishes to be relieved. I have also to thank Mr. Creelman, the Superintendent, for his courtesy, and desire to aid us in every possible way.

I hope that the year on which we are now entering may be even more successful than the last, that our watchword will still be Progress, and that each member will try to do all they can to make our Institute a success.

NORTH GREY INSTITUTE.

The annual meeting was held at Kemble, June 6th, when the fol-lowing officers were elected:---

President, Mrs. James Gardner, Kemble: Vice-Pres., Mrs. D. Davidson, Kemble; Secretary, Mrs. Wm. McGregor, Kemble; Treasurer, Mrs. Beckett, Kemble.

The affairs of the Institute are on a very satisfactory basis, and the members are looking forward to a successful year.

PRESIDENT'S ADDRESS.

As it falls to my lot to preside over another annual meeting of the North Grey Woman's Institute, it may be expected that I should say a few words about the work of the institute during the past year; but

as the secretary's report will probably deal fully with the subject, I will only say that its usefulness becomes more apparent as the years go by. The Woman's Institutes have not had the opposition and discouragements that the Farmers Institutes have had to contend with. There was a time when the idea of teaching farming was poohpoohed at. Now we know that our best and most progressive and prosperous farmers are those who take the greatest interest in our Farmers' Institutes. So it is with the women. We are beginning to learn the "Greatness of even one thing." We read and hear from time to time of women entering into and occupying nearly every trade or occupation followed by men.

The successful business man centres his mind upon one thing and makes a success of it, and we who have married farmers and settled down to rural home life, have chosen one profession or occupation as surely as any artisan, tradesman or mechanic.

But it is rare to find a woman who can put one great thing first in her life and make all other things secondary to it. A man does this. He puts his business first and other things are subservient to it. In that very adjustment of things lies his success. If a woman has a home, for example, that home and its proper study in all its phases should be the very first thing in her life. In proportion as a woman studies that home and its wisest management, she brings leisure to herself and comfort to her family, exactly as a man by systematic management brings leisure to himself. To know one thing thoroughly and to do that one thing in the very best way that it can be done is no small achievement creditable to the best of us.

The really clever woman is she who is clever enough to know that it is given to each of us to know one thing well, and strives to set in action every faculty given her to find out that one thing and then to master it. The modern woman's master it. The modern woman's anxiety to acquire knowledge is verv great. It is so great that as a rule it ends in anxiety rather than in actual acquirement. Most women wish to reach success at a bound. We lack the patience to make haste slowly. We sometimes forget that success, like the top of the ladder, must be reached rung by rung. We also forget or have never learned that great results depend on small beginnings.

The comfort of the home rests largely in the hands of the women who make it: the more humble the home and the smaller the income, the greater the importance that attaches to the practice of economy by the wife and mother. Domestic Science is not the teaching of cooking and sewing alone. Domestic economy is learned by woman in the hard school of adversity; she may not know much of theory but much of practice. She is the woman who takes care because she must.

In France the women of the country are its backbone, in Germany its drudges, yet none the less its mainstay. Here, where women rule their own homes and are accounted first importance, they have a great work to do. On them devolves the duty of inculcating the spirit of thrift, each one in her own little realm. Thrift, properly de-fined, means care and prudence, making the best of things in the best sense; such importance is now attached to thrift in the household, that it is said that if the endeavors of the head of the house are not seconded by the inmates, he might about as well give up the game with destiny as hope to succeed unless his exertions are seconded by the efforts of a frugal housewife.

Women's Institutes will open up a wide field of uselulness for women on the farm, so many subjects that relate to the well-being of that which makes life not only profitable but enjoyable as well. There is something about the Woman's Institute that brings us in common touch with one another: it seems to be a means of bringing about the old time sociability by removing that spirit of jealousy or gossip and giving them something else to think about.

If we do not make it a means of broadening and enlightening our minds it is useless to keep it up. I had the pleasure, the last time I was in town, of meeting Mrs. Hoodless, founder of Woman's Institutes, and she told me it had been proved beyond a doubt that the more intelligent a neighborhood the easier it was to keep up a Woman's Institute. We must not forget that our own little sphere and our own little neighborhood is all the world to us. We have now a brighter prospect, as I understand that Owen Sound Board of Education are about to introduce Domestic Science into their schools. If so, we no doubt will be able to sometimes secure very efficient assistance.

It is customary to appoint officers at every annual meeting, and as I have served my time as president and my term is out, you now have a president and a vice-presi-dent and Board of Directors to elect. I can assure you I feel more than obliged to you for your kind helpfulness and sympathy for the past year and a half. The work was new to me and I may have made mistakes or even blundered, but most of you have borne with me and given me every encouragement that could be desired. I sav most, as in a large membership there are always some who are inclined to find fault and grumble, thinking that much should be accomplished and that they should receive great benefit, although they will not contribute any help themselves nor accept any responsibility, yet even they are helpful in their own small way, often stimulating us to greater activity ourselves.

In justice to myself I can conscientiously say I have at least tried to do my best and all that might be expected of me; but if I have failed I thank you again for your forbearance and I can assure my successor, whoever she may be, that she may ever rely upon my deepest sympathy, willing assistance and earnest helpfulness in anything she may undertake for the promotion or benefit of our Institute.

SOUTH WENTWORTH INSTITUTE.

ANNUAL MEETING HELD AT THE MOUN-TAIN VIEW HOTEL,

The annual meeting of the South Wentworth Woman's Institute was held in connection with the Farmers' Institute at the Mountain-view hotel on June 18, the president, Mrs. F. M. Carpenter, in the chair, the Carluke branch being re-Calder, the secretary. The meet-ing opened, as usual, with the Lord's Prayer. The secretary, Miss M. E. Nash, read her report for the year, which showed the S.W.W. I. to be in a very prosperous condition, numerically and financially, and continually advancing in popularity and usefulness under the able leadership of the enterprising president, which office Mrs. Carpenter has virtually filled for the last two years, having been vicepresident during the presidency of Mrs. Melson, who was away in England, and being elected a year ago to the president's chair. Mrs. Carpenter has been a most conscientious worker, but firmly refused to be nominated for another year.

During the year the Institute was favored with papers on The Chemistry of Foods, Sanitation and Hygiene, Horticulture and other interesting and entertaining subjects, carefully prepared by members, and read before the Institute from time to time, which have been very helpful to home-makers. It also had three demonstrative lectures on Scientific Cooking, by Mrs. Torrance, of Quebec, and Miss Agnes Smith, of Hamilton, which were most interesting and instructive.

The Carluke secretary read a very excellent report of the work of the Institute in her locality. The Carluke branch is in a very flourishing condition. Jerseyville branch was not represented.

The election of officers resulted as follows:

Mrs. J. H. McNeilly, president. Mrs. Erland Lee, first vice-presi-

dent. Mrs. J. K. Lottridge, second vicepresident.

Miss M. E. Nash, secretary.

Mrs. Wm. H. Rogers, correspond-

ing secretary. Miss Lucy King and Miss Fannie

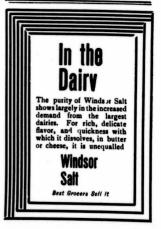
Pettit, auditors. The last four were re-elected by acclamation. Here the business of the meeting closed rather abruptly, as the genial Major Carpenter

as the genial Major Carpenter made his second appearance at the door with a hurry-up call to join the Farmers' Institute in the upper hall, where Prof. Reynolds waited

When washing greasy dishes or pots and pans, Lever's Dry Soap (a powder) will remove the grease with the greatest case. 38 to begin his lecture on Cold Storage of Apples, Pears and Grapes for Home Consuming, as well as for Exportation. The professor had been most careful in his experiments, and kindly gave his interested audience the benefit of his labors, for which he received a hearty vote of thanks, and replied in a very happy manner.

Mange in Cattle and Horses, and Lice on Hogs.

Bulletin No. 74 of the Nebraska Experiment Station treats on "Mange in Cattle and Horses, and Lice on Hogs." It gives the his-tory of cattle mange in the State, with illustrations of affected cattle and the mite causing the disease. The bulletin describes minutely the symptoms found in herds affected with mange, quoting also a number of authors who have observed animals affected in this country and in Europe. The treatment is described at length, giving the methods that were first used, when this disease did not extend over such a large area, which usually consisted of hand applications of disinfectants. It also describes some of the popular remedies that were used at that time, and gives the more modern way of treating the disease, namely, by the construction of dipping tanks and the use of various dips. The bulletin gives the results of dipping with coal tar preparations, which have been used with satisfactory results on over 7,000 head of cattle that were badly affected with mange. Failures after thorough dipping are explained as being due either to the solution not having been sufficiently strong or to reinfection after treatment. The bulletin also states some of the advantages to be derived from dipping. The author thinks that the liberal use of dips will materially aid in lessening the loss from abortion, believing that a large percentage of the abortions occurring among cattle on the range are due to a weakened condition resulting from mange. The bulletin gives description of cattle and pig dipping tanks, together with plates showing construction.



THE FARMING WORLD.

The Farm Home

The Elder and the "Caff."

Oh, Old Widder Bugg was a-weanin' her caff-Took a ha'f for herself an' gin him

a ha'f Had a nice leetle tro'f an' the caff

et there As calm as a sassige, I dew declare Parson he called on the Widder one

day: Offered to help her pitch daown

hay; "An' the dear lettle caff," says he

with a la'f. "I reely must feed that dear leetle caff '

Oh, there's work for me an' there's

work for you, Hi-deedle-deedle, there's work for

to do; But it seems to me that each man's

hands Better stick to the job that he best understands.

"Laws," savs the Widder, "yew'll mess your clothes!

Better let me"-but the parson goes,

Pours the nice warm milk in the nice little tro'i, But, drat his hide, that caff hangs

off. Parson he pokes that lettle caff's

nose Down in the tro'f, an' the caff he

blows---Whoosh! an' the parson, I vum an'

declare, Was a river of milk from his toes

to his hair. She told what he said, did the Wid-

der Bugg. Au' the church has fited him out, ker-hug!

Oh, there's work for me an' there's work for you.

Hi-deedle-deedle, there's work for to do:

But it seems to me that each man's hands

Better stick to the job that he best understands.

-Holman F. Day, in Saturday Evening Post.

Romance of a Red Apple.

Owen Conkling was in that unenviable frame of mind in which idle young men begin to fancy that they are already blase. During the three years that had elapsed since he left college he had done nothing more laborious than travel. He had an old-fashioned reverence for women, but he began to be conscious of an involuntary heresy that included the whole sex except his mother. Equipped by nature and training to shine in society, he had begun by running the whole gamut of its possibilities and ended by believing that there was "nothing in it." His healthy imagination and romantic spirit were dominated by his disciplined mind, and, though he didn't admit it even to himself, he was coming to the belief that the only satisfying occupation for

a wise man of vig r and ambition is work. He was . ming to regard himself so seriously that it became quite impossible for nim to think of women without a smile of deprecation. One by one he had put a hundred to the test-his test-and his well-considered verdict in each case had been "There's nothing to her.

He had now spent a whole summer in Clare, a quasi-fashionable resort in the fruit region, and had catalogued and "double crossed" every woman he had met there. Then, just as he was about to wo-for the city, he saw a young wo-thinking. She man who set him thinking. was brune and beautiful without the aid of any tricks of fashion. Her personality so dominated both milliner and modiste that Owen, connoisseur that he was, didn't know how she was attired. He saw her walking along the street with a speed that was swift without haste and as he watched her face he felt something of the old adoration of his salad days coming into his eyes. At the corner she stopped to talk. to a brown-faced countrywoman, perhaps a farmer's wife, and as Owen passed them he heard her say: "I'm going tonight, Mrs. Krauss. Will you see me off? Oh, thank you. It's the 11 o'clock. I'm, so disappointed"-That was all he The voice was as gentle heard. and penetrating as the luminous eyes. He moped all alternoon, but eyes. He moped all afternoon, but took the bus for the 11 o'clock train.

She was in it with Mrs. Krauss when it called at the hotel. Conkling sat in the far corner and tried to see her face in the half-light. She to see her face in the harright, one was talking. "I just hate to leave without those apples," she was sav-ing. "They're out at Shafer's place-seven miles-the best, the only good crop I've seen this trip. But the hateful old thing wouldn't sell them or even give me an op-tion unless I planked down \$50. No: Monday will be too late. I saw Peale & Seed's buyer up at the hotel to-day. He's scouring Michigan for apples, and he'll have Shafer's before I could get back."

"Don't worry, Miss Pauline," said the other woman. "I'd loan you the money if I had it. Perhaps if you hurry back"-

"Oh, no! I know how quick that other buyer is-I could just cry.

And as they neared the depot Conkling saw her crushing her little handkerchief into a ball between her hands. He got out first, aware of an absorbing desire to be of ser-vice to Miss Pauline. She had alighted and said good-by to her friend before he had collected his wits sufficiently to help her out of the bus. He was awed by this fascinating woman, because he now knew that she had a better excuse for living than lawn parties and cotillions. He knew her name was Pauline, that she was "in trade" and in trouble. As he stood there watching her she suddenly gasped

"My valise!" and ran to the end of the platform. He was quickly beside her, his hat in his hand.

"I left my valise in the bus," she said. "Would you, could you"-

He was gone like a lackey, and in two minutes she was taking the little traveling bag from his hand. Thank you very much, Mr."----"Conkling," he said.

"My money was in it. I don't know how to thank you. Goodness here comes our train. Are you go-

"Is this yours, too? I found it in the bus." And he held out a little the bus." And he held out a little red apple. But she laughed a little sally and said: "You may keep it, Mr. Conkling. Are you going out this train?" she raised her voice and spoke close to his ear so that he might hear above the hissing

engine. "No," he said, putting the apple in his pocket and helping her up the steps as the train groaned away. She bowed again, and he held his hat in his hand till he was out of sight, then he went to the hotel, counted his money and got the night clerk to cash a draft. In 15 minutes he was sitting in a hired buggy driving through the night to Shafer's farmhouse, seven miles away. He got there at midnight and roused the Dutchman, who came to the door with a light in one hand and a shotgun in the other. Conkling explained that he had to leave town in the morning and had come to buy apples. The Dutchman chuckled. The price was $S_{3.50}$ per barrel for the whole lot, 500 barrels. The fashionable young man haggled, argued, simulated for the first time in his life. He began to realize that there was a chance for eloquence, wit and mental activity even in apple buying. He "Jewed down" the farmer till the price was agreed at \$2.90, and congratulated himself on having probably done better than Miss Pauline or any woman could have done.

"Was there a lady here this afternoon?" he asked as the farmer scrawled a bill of sale.

"Yah. A laty dere vas vich mein epples all vould py von tree dollar forty, aber she didn't hef dose feety tollars cash monig."

"Did you get her name?

"Ach nein, I did nit got id. She vas von Sheecago by de eppel pizness."

Conkling was disappointed. 110 had hoped to get Miss Pauline's name. But he paid \$250 as an earnest and told the Dutchman to ship the apples to his Chicago address with a bill-lading and draft to follow.

He had almost reached the Union Station next day before he could figure out a feasible plan to get his apples to Miss Pauline. But he was inspired with an unwonted enthusiasm, and when he got into his cab he told the driver to take him to a newspaper office. There he wrote out this advertisement: "For sale; 500 barrels of perfect winesaps from Shafer's farm, near Clare Mich. Quick bargain. K 89."

He got 50 or more answers the next day and threw all but one in the waste basket. It read. "K 89. Dear Sir: If you can call with sample at any office, 814 Futurity Building, I will make an offer. Pauline Davis, agent."

She was sitting at her desk, more radiant than ever, when he walked in with the little red apple in his extended hand. He saw her blush furiously as she stood up, but she said:

"Why, Mr. Conkling! You didn't buy those

"Yes, Miss Davis, I bought them. You see, I wanted"

"But you're not in the apple busitiess?

"Oh, no. I just happened to overhear your conversation in the bus that night and I wanted to help you out."

"But I know you must have been swindled. Did you pay more than two fifty? Honest, now, Mr. Conkling?" She smiled ingenuously, then laughed with delight as he lied:

No, miss. Only two forty. Will you take them off my hands at once

"Take them off your hands? Why,

I'll share the profits with you." "If you are pleased, I have al-ready collected my profits." he said, and she blushed as her bright eves smiled again.

Owen Conkling didn't leave till he had fixed up his first business deal to the eminent satisfaction of Miss Davis, but he went like a somnam-bulist back to the depot and took a train for Clare. There he repeat-ed his journey to Shafer's, and when he came away he had an in-voice made out to Miss Pauline Davis in which the apples were billed at \$2.40.

"I'm out just two hundred and fifty," he smiled to himself as he drove back to town, "but she'll never know it. I'd give a million rather than lose her.

And when he came back to her with that apple bill and she had complimented him on his "first

complimented have buy," she added: "Why, Mr. Conkling, you ought to go into the business." "I will, Miss Pauline," he an-tradictive seriously, "if you'll swered, quite seriously, " take me into partnership."

And she looked surprised but not displeased as he whispered: "Life partnership, Pauline."-John H. partnership, Pauline."-John H. Raftery, in Chicago Record-Herald.

Hints by May Manton

WOMAN'S TUCKED SHIRT WAIST, 4172.

To Be Made with Elbow or Long

Sleeves, With or Without The Stock Collar and Fitted Lining.

Shirt waists made with fine tucks and with elbow sleeves and collarless necks are among the features of the season and are daintly charming. This very pretty model as shown in handkerchief lawn with a finish of Valenciennes lace and beading threaded with black velvet ribbon but is suited to all lawns, batiste, dimity and the like and to the many soft wools and silks. As illustrated it is made with the round or English neck and the popular elbow sleeves and is unlined, but the collar can be added and long sleeves substituted whenever preferred, and the lining is advis-able with silk and wool fabrics.

The lining is smoothly fitted and extends to the waist line only. The fronts of the waist are tucked in



4172 Tucked Shirt Waist, 32 to 40 bust.

groups that extends for their entire length with a single wider tuck to yoke depth, between each two groups that gives needed fulness over the bust. The backs are tucked from shoulder to waist and give the desired tapering effect. The elbow sleeves are tucked and finished with straight frills, but the long sleeves are plain and in bishop style.

To cut this waist in the medium size 314 yards of material 21 inches wide, 3⁴ yards 27 inches wide, 3¹/₄ yards 32 inches wide or 2 yards 44 inches wide will be required when tucked elbow sleeves are used; 3¹/₂ yards 21 inches wide, 3³/₈ yards 27 inches wide, 2⁴/₂ yards 32 inches wide, or 2 yards wide, or 2 yards 44 inches wide when plain bishop sleeves are used. The pattern 4172 is cut in sizes for a 32, 34, 36, 38 and 40 mch bust measure.

The price of above pat tern post-paid is only 10 cents. Send orders to The Farming World.Confederation Life Building.Toronto, givingsize wanted.

The Philosophy of It.

Write it down ez gospel-No matter what dev say : De airthquake never hurt vou Less you in de airthquake way !

De Lawd, he made de country-Man 'low de country his ; But de fire never burn vou Ef you don't go whar he is.

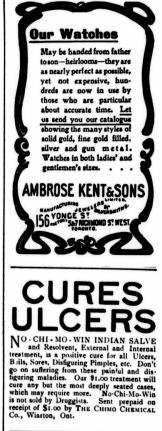
You 'bleeged ter rickernize it En know what makes a load ; Ef you ain't a-wantin' trouble, Give trouble all de road !

-Just From Georgia.



How to Get Rich.

Take a quantity of silica costing one-fourth the price of oil; mix it with oil, and sell the compound to the public at the price of pure oil; offer "prizes" with the compound to make it sell. It is such a compound the public get when they buy common soaps. In Sunlight Soap-Octagon Bar-the public buy Soap—Octagon Bar—the public buy a pure and well-made soap. Sun-light Soap reduces expense by prolonging the life of the articles washed with it, which is much more profitable to the public, than com-mon soaps with "prizes." 204



When writing to advertisers always mention THE FARM. ING WORLD.

THE FARMING WORLD.

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

D. T. MCAINSH, D. T. MCAINSR, J. W. WHEATON, B. A PUBLISHER - Epiron

The Parming World is a a paper for farmers and stockmen, published weekly, with illus-trations. The subscription price is one dollar a year, payable in advance. **Portage** is prepaid by the publisher for all sub-scriptions in Canada and the United States, For all other countries in the Postal Union add fifty cents for postage.

Shange of Address — When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

week before the change is to take effect. **Seciefs are only sent upon request.** The date opposite the name on the address label indi-cates the time up to which the subscription is puid, and the change of date is sufficient acknowledgment of payment. When this change is not made promptly notify us

Olscontinuances. — Following thegeneral desire of our readers, no subscriber's copy of THE F area ING WORLD is discontinued until notice to that effect is given. All arrears must be paid.

tion energy is given. All arrears must be paid, fow to Remit.—Remitances should be sent by cheque, draft, express order, postal note, or money order, payable to order of THE F AMING WORLD. Cash should be sent in registered letter.

tenar. Advertising Rates on appursum. Letters should be addressed : THE FARMING WORLD, CONFEDERATION LIFE BUILDING, TORONTO.

QUESTIONS AND ANSWERS 101010101010101010

Ring-Worm in Pigs.

J. F. C. writes: "I have some pigs two weeks old. About a week ago I noticed a small wound on the side of their jaws. From this wound a scab forms that spreads over the eyes so that they cannot see."

The first thing to do is to remove all the well from the sick Then remove all the crust pigs. over the sore places with soap and After this rub well into water. the sore a little of the following ointment:-Iodide of potash one dram; crystals of iodine, two drams; vaseline, two ounces. Mix well before using. If necessary repeat the operation in one week. If necessary,

Cribbing.

A subscriber, Huron County, writes: "I have a horse seven years old that is a cribber. He takes hold of the manger with his teeth and sucks wind. He acquired this habit about a year ago. Is there any cure?'

We know of no cure for this habit. Some veterinary surgeons perform an operation by dividing the muscles and nerves that gives some relief, but it is not a sure cure. A strap around the neck sufficiently tight will stop them for the time being.

Expert Agriculturists Wanted.

Mr. C. C. James, Deputy Minister of Agriculture, returned last week from Washington, D. C., where he attended the convention of the American Association of Farmers' Institute Workers. The convention was very successful,

there being many good papers, and an attendance representing nearly all the States of the Union. It was decided to meet in Toronto during the last week of June in 1903. Mr. James was convinced from the papers and reports presented that the Ontario Institute system is as workable and as successful as any in operation in the United States. The American delegates emphasized their difficulty in finding enough suitable men to impart expert agricultural knowledge to the farm-ers, and Hon. James Wilson, U.S. Secretary of Agriculture, in his address, spoke of the wonderful growth of agricultural, experimental and investigation work, which, he said, had far outstripped the supply of experts. With the growth of scientific agriculture, Mr. James thinks, there will be a place for almost a new occupation along this line. The U. S. Department of Agriculture was found to be a most extensive exterprise, with an annual expenditure of \$5,000,000 or \$6,000,000. Mr. G. C. Creelman, Superintendent of Farmers' Institutes in Ontario, who also attend-ed, was re-elected Secretary-Treasurer of the association Both he and Mr. James took part in the programme.

Nova Scotia Institutes.

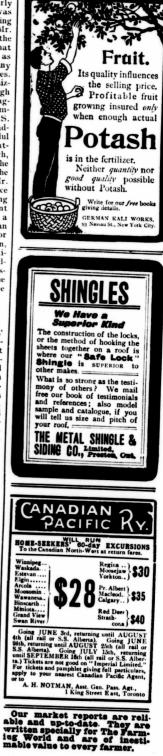
Mr.D. Drummond, of the Farmers' Institute staff of the Dominion Department of Agriculture, has just completed a series of very successful meetings in Nova Scotia, and will spend the month of July on similar work in Prince Edward Island. The meetings in Nova Scotia have been well attended, and Mr. Drummond has been appreciated all along his route. Expressions of au-proval have reached the local aualong his route. Expressions of apthorities from several places. meetings are said by Mr. Drummond to have been as good as any he has attended outside of Ontario.

Country Life in America.

Country Life in America for July is a vacation number, with sugges-tions of many things to do and see in midsummer, articles on dogs and horses, summer homes, garden-making, camping, and varied topics of the outdoor world in July, forming a superbly illustrated number of this splendid magazine. The number is timely throughout and is a remarkable issue of a magazine which is both very useful and very beautiful.

" Kno-Bug."

The Maine Agricultural Experiment Station has issued a special bulletin dealing with a new insecti-cide fraud called "Kno-Bug." This is a preparation to destroy potato bugs and all other bugs that eat leaves, plants or vines. This substance contains 87 per cent of land plaster, 4 of saltpetre, 2 of ochre and 2.5 per cent of Paris green. The remaining constituents are sand, clay and a little water. This substance retails at from 5c to toc a pound. With 2% pounds of



Paris green and too pounds of land plaster mixed together the farmer would have a material for practical purposes identical with "Kno-Bug" at a cost of less than 1 cent a pound.

Fog-Fruit.

They have been experimenting in the West, particularly in Arizona, with a new plant called "Fog-Fruit." This plant is a perennial, herbaceous, much-branched, creeping plant, the stems of which root extensively in the nodes. The thickened, opposite leaves are one inch long or less, mostly blunt at the tips, and rather sharply saw-point-ed above. The roots become greatly thickened below during the autumn, and this reserve food supply undoubtedly enables the plant to begin growth in the spring with little or no rain, and also to maintain itself during long adverse periods. This plant is not a forage producer, but is specially valuable as a sand or soil binder. When set two feet apart in favorable situations, it was observed that wellrooted plants of the fog-fruit covered the surface completely during one season's growth ; and there is every reason to believe that it will do equally well in moist, sandy washes, since it favors such locations. It should be set in those situations which are not liable to excessive erosion and in all the smaller rapidly-growing washes. As the surface of these washes becomes covered over with a carpet-like mat of Lippia, cutting will inevitably decrease.

Wheat vs. Bananas

Under the above caption the Porto Rico Trade and Agricultural Journal, a new publication that has recently come to our exchange table, publishes a rather significant article dealing with the future demand for these articles of trade. It will be some time, we think, before the sturdy wheat grower of the North countries will be convinced that the luscious yellow fruit of the tropics will altogether replace the old standby on the tables of the hungry consumer. The farmer will keep on growing wheat and the consumer will look for his bread and butter for many years to come. The article reads thus:

"Science again brings a new paradox to the front. It contains the staple food supply of half of the entire human race—wheat. Long before the discovery of the Chaldean ovens, ages before Tyre's bread bowls were hewn out of the solid rock, man raised wheat, and ground and baked it for his daily sustenance.

"To-day science affirms that wheat as a general food product is doomed: that not only is the supply utterly inadequate for the maintenance of the increasing races, but that wheat has by no means the highly nutrient qualities that it has long been supposed to offer to hungry humanity, and that-mirabile dictu ! the unprepossessing, yel-



41

Health Resorts and Attractions.

There is no region in America richer in mineral springs than Colorado, while throughout the State there are pleasure resorts and splendid places of attraction of various kinds in great numbers. It has been truly said that all of Colorado is a health resort, and this statement is sustained by the most eminent physicians of the country. What with its beautiful cities on the plains, its gorgeous mountain peaks and lovely valleys, its awful canvons and their rushing torrents its forests and streams, its broad green parks and charming crystal lakes amid the mountains, what more could nature provide or man desire for his welfare or his delights. Not only the health-giving mineral and thermal springs which gush spontaneously from the mountain sides invite the invalid and the weary, but in all the rest of these charms of nature is found a panacea for the ills and cares of body and mind diseased.

To enable persons to reach these favored localities without unnecessary expenditure of time or money, the Union Pacific bas out in effect very low rates and splendid train service, three trains leaving Missouri River daily for Denver, one of which is "The Colorado Special" which is the finest train in the west. Accommodations are provided for all classes of passengers, the equipment including free reclining chair cars, dining cars, buffet, smoking cars, drawing room sleepers and day coaches.

Full information cheerfully furnished on application to G. G. Her-Ting, G. A., 126 Woodward ave., Detroit, Mich., or. H. F. Carter, T.P.A., 60 Yonge st., Toronto, Ont

ANNUAL MEETING YOUNG PEOPLE'S CHRISTIAN UNION SOCIETY

OF THE

UNITED PRESBYTERIAN CHURCH Tacoms, Wash., July 23 to 27, 1902.

From July 11th to 21st inclusive the Union Pacific will sell round-trip tickets from Missouri River to Tacoma, Seattle and Portland for \$45.00, and to Spokane, Butte and Helena for \$40.00.

Correspondingly low rates from intermediate points.

Nearly 200 miles along the Columbia River by daylight.

For time tables, pamphlets descrip tive of the territory traversed, apply to your nearest agent, or address G. G. Herring, G.A. 126 Woodward Ave., Detroit, Mtch ; H. F. Cartier, T.P.A., 60 Yonge St., Toronto, Ont.

DRAINAGE.

FARMERS SHOULD ORDER A SET OF OUR I ARMERS SHOULD ORDER A SET OF OUR moulds for manufacturing concrete pipe. All the leading municipalities are adopting them and farmers can make their own bridges and drains of concrete, which lasts a lifetime. Write for prices of moulds. All sizes. Sawyer & Massey Co., Limited, Hami ton, low skinned, finger shaped, despised banana of the tropics promises utterly to supplant it in the estimation of the world.

"Not only is the banana twentyfive times as nutritious as wheat but it is one hundred per cent more prolific.

"In every sense the banana has the cereal conquered and with more attention to the proper cultivation of the banana in Porto Rico, a repetition of the heartrending scenes of famine recently witnessed in India and Russia can be forever made impossible. It costs, approximately, \$12.00 to cultivate an acre of wheat in North Dakota and not over \$8,00 to cultivate an acre of bananas in Porto Rico. North Dakota, South Dakota and Minnesota produced last year 227,000,000 bushels of wheat on 14,996,617 acres of land, or about 900 pounds to the acre and an average banana crop in Porto Rico vields 1800 pounds per acre.

Bananas have forty-four times the nutriment of potatoes and thirty times the nutriment of rice, the staple fare of more than a billion of the inhabitants of the clobe.

"The fact that Porto Rico can be more important factor than North Dakota as a world's food producer should revolutionize the banana industry of the Island. An acre of bananas-nothing but fruit considered-will net its owner \$40,oo per year, and with a co-operative paper mill, using the leaves and pruned trunks of the banana for the manufacture of wrapping paper-there is nothing better-an addit-ional \$40,00 could be made ; and it is not impossible to double these figures with careful attention to crop and mill. With more bananas will come better facilities for transportation "

Ferns in a Tree

Ferns usually grow in deep, cool woods, and not in trees, as does a dainty little fern called the scaly polypody, which is found in beds high on the sides or branches of trees. They grow in a thick mat, completely hiding the bark, plant entwining plant. The roots pene-trate the heavy outer bark of the tree, rot it and feed upon it, while the mass catches falling leaves and twigs and holds them until they have added to the bit of soil to contend with many dry summers. Each plant has only a scant bit of foliage, the beds containing a great number of plants, covering often twenty or more square feet .-- Country Life in America.

At Pittsburg

Prof. Wm. Lochhead, of the Ontario Agricultural College, and Mr. Geo. E. Fisher, of Burlington, San Jose Scale inspector for Ontario, attended the meeting of the American Association of economic eutomologists at Pittsburg, Pa., last week. This is an important organization of American scientists, which discusses questions of vital importance to agriculturists.

STOCK

DAVID McCRAE, Janefield, Gueiph, Canada, Im-porter and Breeder of Galloway Cattle, Ciydesdale Horses, and Cotswold Sheep. Choice animals for sale.

British Columbia Farms.

If you are thinking of going to the Pacific Coast try Bruish Columbia: No extremes of temperatures No droughts, No blitzards, Fertile land, and the **heaviest** crops per acree in Canada, we make this statement without fear of contradiction. The land is statement without fear of contradiction. The land is the basel the makets and prices for farm produce the basel the Statific Coart Wite for Farm Pamphets to the Settlers' Association. Bots 30, Van-covere, R.C. When writing please refer to this paper.



FOR FARMERS AND STOCKMEN.

PURE-BRED STOCK NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breaders of pure-bred stock and pointry. Any information as to importations made, the sale and pur hase of stock and the condition of berds and flocks; that is not in the nature of an advertisement will be welcomed. Our desire to to make this is not in its norm numer of an autoretisement with or without of the order of a source of the make this is the medium processing information as to the transfer of purchored animals and the condition of live stock throughout the country. The co-operation of all breeders is assumetily solicited in making this department as useful and as interesting as possible. The existor reserves the relation colliminate any realized he may consider butter using a distribution columnation and the reserves the relation columnate any realized he may consider butter uside to our advertising columns.

Cartle

Attention is directed to the auction sale (an announcement of which appears elsewhere in this issue) of Shorthorns, the property of J. F. Davis, Tempo, Ont., to be held on July 16th next. The stock which Mr. Davis is offering are from the Roan-Duchess, Royal Duchess and Fillagree tribes, and it will pay parties looking for a good line of breeding stock to write for a catalogue.

At Mr. Rich Gibson's auction sale of Shorthorns, held at Dela-ware, Ont., on June 24th last, a number of valuable Shorthorns were sold at good prices. The Belvoir herd is a noted one, and the announcement of a public sale was sufficient to attract a large number of buyers from all parts of the country. Among those offered were representatives of the wellknown Charmer and Waterloo tribes of Shorthorns. The Charmer branch of the Sylph tribe has always been a creat favorite in Britain, but few of them have found their way to America. This branch is derived from Royal Charmer, imported in 1876, by the late John Hope, for Bow Park The Waterloos were bred farm. by Mr. Bates and further comment in regard to them is unnecessary. The following is the list of animals sold with the price paid and the purchaser:

Fame-32115-Calved June 26, 1895. Sold to W. D. Flatt, Hamilton, for \$95.

BelvoirFame-Calved Nov. 9, 1901 :

W. D. Flatt, \$65. Mina 5th-30593-Calved June 16, 1899 : A. J. C. Shaw, Thamseville, Ont., \$180.

Belvoir Mina-Calved January 11, 1902 ; James Wilson, Innisiail, Alta., SIIO.

Roan Lorne 3rd-32118-August 17, 1893 : Thos. Kelly, Union, Ont., \$105. Lady Minto-39756-Feb. 5, 1899 ; James Wilson, \$130.

Petted Lorne-39759-Dec. 21, 1899; James Wilson, \$180.

Belvoir Lorne-Oct. 24, 1901; J. Tristain & Son, Strathburn, Ont., \$125.

Queen of Scots-April 28, 1901; A. W. Smith, Maple Lodge, Ont., \$80, Charming Archeress-39750-Jan. 30, 1900; J. T. Gibson, Denfield, Ont.,

\$150.

\$150.
 Charming Svlph 4th-32111-Jan 2, Charming Svlph 9th-39752 - Nov.
 20, 1900; Thos. Kelly, \$95.
 Charming Sylph 9th-39752 - Nov.
 20, 1900; Thos. Kelly, \$125.
 Famous 5th-32116-April 7, 1894;
 Mr. Docker, Wallacetown, Ont., \$80.
 Famous 6th-Oct. 21, 1902; J. Tristian & Son, \$80.

tain & Son, \$80. 5th Barrington Lady-Nov. 17, 1893;

Thos Kelly, \$150. Wimples Lass-James White, St. Mary's, Ont., \$200, Scottish Bowman-Sept., 1901; A.

J. C. Shaw, \$130.

Soldier's Bride-39764-April 7, 1894,

Queen of the Tournament-39761-July I, 1898; R. II. Harding, Thorndale, Ont., \$115. Oueen of the Bar-Dec. 10, 1901 ; R.

H. Harding, \$40. Scottish Archeress-39762-April 21,

1899; W. G. Pettit, Freeman, Ont., \$110.

Scottish Maiden - 39763 -- Oct. 10. 1900 : Geo. Hill, Delaware, \$100.

Princess 4th-38982-Dec. with bull cali, Percy Sea-Waterloo 1895.

brook, Delaware, \$100. Rose of Middlesex-34700-Oct. 17, 1897 ; James Wilson, \$80.

Rose of Scotland-April 1, 1901;

Thos. Kelly, \$60. Charming Sylph 6th-32113 -Dec. 17, 1896, \$160.

Christmas Card-Dec. 25, 1901; W. Flatt, \$110. D

D. Flatt, S110. Queen of the Links-39760-Calf-Oct. 1, 1899 : Thos. Kelly, \$125. Charming Sylph 8th-39751-and bull calf : J. A. McKillop, West Lorne, \$100.

Fair Rosamond-39754-May 1, 1900; W. J. Evans, Lawrence Station, \$65.

Raising Young Pigs off the Sow

Mr. George Martin, manager of the Waterloo County House of Refuge, sends us his plan of raising young pigs when from any cause they cannot be raised by their mother, as follows :

"In the month of April a sow gave birth to a litter of ten pigs. She disowned them and we at once set to work to feed them, and thinking that cows' milk was too strong for them we gave them equal parts of water and new milk, fed it to them from a bottle with a rubber nipple on it, but the food did not agree with them and they all got diarrhoea. A veterinary surgeon told me to give them equal parts of cows' new and skim milk, which I did, and also put with it a half teaspoonful of International Cattle Food, and they began to get better at once. When they were a week old we taught them to eat out of a small trough, by putting a rag around the end of a small stick and dipping it into the milk and letting them suck it and gradually got their noses down into the feed in the trough. Although they were very much stunted at first they are now a fine thrifty lot of eight pigs. Since then another eight pigs. sow had a litter of nine and has been so sick that we are raising them on the bottle and they are doing finely. Of course to raise pigs this way it requires some attention. We feed them about ten p.m. and then feed them at three or four o'clock in the morning for about two weeks, then the extra trouble is over excepting that we feed them oftener in the day than we do after





And now they are using the refuse molasses from a sugar factory Not a thing in connection with a sugar factory will go to waste in a year or two.

try Life in America. •

LADIES, WHY SUFFER ?

Dr. Jones' Restorative, restores health and vigor to the generative organs, \$2,00 per bottle.

BROXIDE CHEMICAL CO., Tereste

Years of CAREFUL BREEDING have made the OAK LODGE YORKSHIRES the Standard of Quality for IDEAL BACON HOGS.



Far in Advance of All Competitors Harvesters to suit all kinds of mowers, and every machine warranted. Our Motto-" Not how Cheap, but how Good." Price on application to any of our local agents, or send direct to-TOLTON BROS., Guelph, Ont.

ty-four hours.

go, and frequently die.

the vards.

seeded down.

Market Review and Forecast

Office of The Farming World. Toronto, July 7th, 1902.

Though this is the quict season in general trade and the speculative element in business is too strong to be altogether healthy, there is a firm confidence in the business outlook and in the future of trade. Crop prospects on the whole are good. Money keeps ample for all legitimate purposes at about 5 per cent. on call.

Wheat.

The weather has been the dominant factor in the wheat situation during the week. Early in the week there was an excited and much firmer market at Chicago, owing to reports oi the crop being badly damaged by the weather. At the end of the week there was an easier feeling owing to damage not being as great as was at first supposed. At present the prospects for a good average crop are good and though some damage is reported in certain localities the average condition is not much lower. Of course a week or two of dry weather is needed to help matters along. The Price Current has this to say of last week's crop prospects:

"The past week, which is in the midst of winter wheat harvest time, was very unfavorable for harvest work. Rains have been wide-spread and excessive over the winter wheat belt. In limited localities there has been material damage by winds and rain; on the whole, however, the damage done was slight, but the crop is threatened with setious loss by spoiling, if the weather does not become drive quickly.

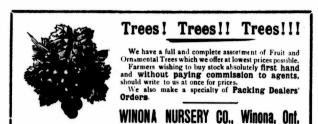
"The spring wheat section is having plenty, but not too much moisture; the wheat is beginning to head and the condition is bractically as good as heretofore, although there is a little complaint of rust in Minnesota.

"Late mail advices on foreign crop conditions suggest that the world's wheat crop prospects are equal to or better than two weeks ago, although possibly hardly equal to the promise of a month ago. A full average crop may be expected however."

The local market rules steady at 76c to 77c for red and white, 68c for goose, and 75c for spring at outside points. On Toronto farmers' market red and white bring 8oc to 85c, goose 68c to 70c, and spring file about 80c a bushel.

Uats and Barley

There are reports of damage to the oat crop in many parts of the



States owing to rain, but if it should clear now these will not amount to much. Trade is somewhat quict here, but the market is steady at 43c for No. 2 white. On the farmers' market oats bring 43c to 50c per bushel.

On Toronto farmers' market malt barley brings 53% to 60%, and feed barley 53c to 54c per bushel.

Peas and Corn

The pea market is quiet here at 76c middle freights. Peas bring 74% on Toronto farmers' market.

74% on Toronto larmers market. The American corn crop is not in as good condition as it was a week ago owing to wet, but if dry weather sets in it will be well up to the average crop. Canadian yellow is quoted here at about 58c in car lots, Toronto.

Bran and Shorts

Ontario bran is quoted at Montreal at \$17.50 to \$18.00 and shorts at \$22.00 in car lots on track. City mills here sell bran at \$18.50 and shorts at \$22 in car lots 1.0.b. Toronto.

Potatoes and Beans.

The season for old potatoes is about over and new ones are beginning to appear. Still the market keeps firm. At Montreal during the week, jobbing lots sold at 51.00 to 51.20 per bag. Old stock is selling here at \$1.25 per bag in a jobbing way, and new ones at \$1.25 per bushel.

The bean market is easier. Montreal quotations are \$1.10 per bushel in car lots and \$1.15 to \$1.20 in a jobbing way.

May and Straw

The hay trade is quict and is reported easier, but buyers, especially at Montreal have found it difficult to get hay at lower levels. Canadian hay continues in good demand in England at the recent decline. Montreal quotations for baled hay in car lots are No. 1 timothy, \$9.00 to \$9.50, No. 2 \$8.25 to \$8.50; clover mixture, \$8.00 and clover \$7.50 to \$7.75. Here car lots of No. 1 timothy are quoted at \$10000 on track, Toronto. On the local farmers' market, timothy sells for \$1100 to \$12,50, clover, \$8,00 to \$9,00 and sheaf straw \$8,00 to \$9,00 per ton.

Free and Poultry.

The receipts of eggs have fallen off considerably during the week though prices remain about the same. At Montreal sales of straight lots have been made during the week at from $13\frac{1}{5}$ to $13\frac{1}{5}$ cand No. 1 candled stocks at 14c to $14\frac{1}{5}$ cin case lots. Eggs are in good demand here and sell readily at about 15c in case lots. On Toronto farmers' market, new laid bring 14c to 15c a dozen.

There is nothing doing in dressed poultry as it is entirely out of season.

Fruit.

The warmer weather of the past few days has brought the strawberries in in larger quantities and if the rush continues lower values may be looked for. At Toronto fruit market strawberries sell at from 3¹/₂ to 4¹/₂c a box and cherries at 8⁵/₅ ct o 51.25 a basket.

Cheese

There was a slight decline in the cheese trade during the week but the market has ruled lairly steady. Montreal quotations are $9\frac{1}{2}$ to $9\frac{1}{3}$ co for finest westerns and $9\frac{1}{2}$ to $9\frac{1}{3}$ co for finest easterns. At the local markets during the week there has been a decline of from $\frac{1}{3}$ co $\frac{1}{3}$ co spices have ranged from $9\frac{1}{3}$ co $9\frac{1}{3}$ co per Ib. Cable reports show a good demand under the recent decline. Exports from Montreal from the beginning of the season to July 2nd, are 432,322 boxes as against 309,476, for the corresponding season of last year. The total exports from this side, however, including New York and Portland for the same period are 515,019 as against 481,915 boxes for the same



We will be pleased to receive ahipments of Poultry (dressed or alive), Butter and Eggs in any quantity, and will forward, upon application, empty crates and egg cases. Payments weekly by Express Order.

Toronto Poultry and Produce Co. - Office, 470 Yonge St., TORONTO 31,104 boxes. The make of cheese is likely to be heavier from this on.

Butter

Butter exports from Montreal from May 1st to July 2nd, are 109,674 pkgs. as compared with 77,905 pkgs. for the same period of 1901. The total exports from Canada and the United States, however, show a decrease of 777 pkgs. The export market is casier though there is a good business doing in the old country at the recent decline. The Trade Bulletin's summary of last week's trade is as tollows:

"The market is decidedly easier and 'se to 'se lower on the week, sales having transpired to-day of a little over 1,000 pkgs. of choice Lastern Townships creamery at 194c here, of which one lot of 150 pkgs. was said to be as fancy a lot as was possible to find; also 500 boxes of finest at 19%c, and several factories classed as time sold at 19c to 194c. A lot of between 80 and 90 pkgs. of good Western creamery sold at 18½c. Western cream-ga-thered creamery is not worth as much as fancy Eastern Townships by 1c per lb. nor as much as finest Eastern Townships by ac per lb. In Western dairy butter sales of finest selected have been made at 16¹/₂c to 16¹/₂c which is ¹/₂c under sales of a week ago. Medium goods are offered at 15c. Sales of finest Western at points of production have transpired at 15½c to 15%c; but buyers expect to get what they require next week at 15c to 15 c i.o.b. The stocks of creamery butter in store here on the first of July were 40,000 pkgs, against 22,000 pkgs. on June 1st. The stocks of dairy butter on the 1st July were 26,000 pkgs. against 1,-408 pkgs. on June 1st."

The market here keeps steady with a good demand for choice dairy and creamery. Choice cream-ery is quoted at 19¹/₂e to 20¹/₂e for prints, and 19c to 1912c for solids. Choice dairy tubs, large and small rolls sells at 15¢ to 16¢ in jobbing lots. On Toronto farmers' market pound rolls bring 15c to 17c and crocks 12'c to 14c a lb.

Wool

The wool market is about the same. Owing to the unfavorable weather the clip has been late in arriving. Canadian pulled is quoted at Montreal at 17c to 18c, unwashed fleece 8c to 10c and washed 13c to 14c. Quotations are unchanged here at 13c for washed and 7¢ for unwashed.

Cattle.

The cattle situation is not so strong as a week ago. There has been a general lowering of values especially for medium and lower grades. Everything of prime qual-ity has held its own. Speaking of last Wednesday's market for beef

"NEW ENERGY" Makes New Men \$1.00 Per Bottl BROXIDE CHEMICAL CO., Toronto steers at Chicago, Clay Robinson & Co. say:

"The market opened steady for the choice grades, but demand was indifferent and later in the day even the best beeves had to sell fully 15 cts. lower. The greatest drop, however, was on the class selling between \$7.00 to \$7.85, which lost to to 25 cts., while the sorts below \$7.00 were 10 to 15cts. lower. This leaves strictly prime cattle selling in about the same notches as a week ago, but the lower grades are considerably lower.

"A year ago to-day we quoted extra prime beeves at \$6.25 to \$6.40, with bulk of the good to choice dressed beef, shipping and export steers at \$5.00 to \$6.00, and common to medium grades at \$4.25 to \$5.00."

The receipts of live stock at Toronto cattle market on Friday, were large, comprising 1,240 cat tle, 900 hogs, 2,000 sheep and lambs and 164 calves. The fat cattle were not nearly as good in quality as earlier in the week. Prices for all classes of butchers and exporters were easier with the exception of the best butchers which were scarce and firm. A few feeders and stockers are coming forward but the quality might be better. But all are readily picked up. Steers 900 to 1,000 lbs. each sell at \$3.90 to \$4.50 per cwt. Stockers of good quality are scarce and more both of light feeders and stockers would find a ready marstockers would find a ready mar-ket, especially if the quality is good. Choice milch cows and springers bring good prices but common stuff is slow of sale.

Export Cattle .- Choice loads of heavy shippers are worth from \$6.25 to \$7.00 per cwt., medium exporters \$5.85 to \$6.10. Heavy export bulls sold at \$5.25 to \$5.90 and light ones at \$4.50 to \$5.00 per cwt., choice export cows sold at \$4.85 to \$5.75 per cwt. Butchers' Cattle.—Choice picked

lots of these, equal in quality to the best exporters, weighing 1,100 to 1,150 lbs. each, sold at \$5.85 to \$6.12% per cwt. Choice picked lots of butchers' heifers and steers, 925 to 1,025 lbs. each sold at \$5.35 to \$5.60, good cattle at \$5.00 to \$5.25, medium at \$4.40 to \$5.00 and inferior to common at \$3.00 to \$4.00 per cwt. Loads of butch-ers' and exporters' mixed sold at \$5.50 to \$5.70 per cwt.

Feeders.-Light steers, 900 to 1,000 lbs. each, sold at \$4.25 to \$5.00 per cwt.

Stockers .- Well bred young steers weighing 400 to 850 lbs. each sold at \$3.50 to \$4.75, and off colors and those of inferior quality at \$2.75 to \$3.50 per cwt.

Calves .- At Toronto market good to choice calves bring \$4.50 to \$5.00 per cwt. and \$2.00 to \$8.00 each.

Milch Cows .- These sold at \$25 to \$51 each.

Sheep and Lamba

Owing to the large run of sheep on Friday, prices were easy at quo-tations. Spring lambs sold at \$2.50 to \$4.25 each and sheep at

\$3.50 to \$3.85 per cwt. for ewes, and \$2.75 to \$3.00 for bucks. Spring lambs are quoted at Buffalo at \$6.50 to \$7.25, and year-lings at \$4.50 to \$5.00 per cwt.

Hogs

Hogs advanced a little during the week as we intimated last week. On Friday prices ruled firm at \$7 per cwt. for select bacon hogs and \$6.75 for lights and fats.

For the week ending July 12th, The Wm. Davies Co., Toronto, will pay \$7.25 for select bacon hogs, \$7.00 for lights and \$7.00 for fats. The Montreal market is steady.

The Montreal market is steady. Packers there are paying \$6.75 to \$7.00 per cwt. for bacon hogs. The Trade Bulletin's London cable of July 3rd, re Canadian bacon reads thus:

The market is firmer and higher, at an advance of 3s during the past two weeks.

Horses

Owing to moving operations very little business was done at Grand's last week. Friday's sale was withdrawn. Mr. Smith expects to be permanently settled in his new repository on Simcoe street this week. General trade in horses, however, keeps up well for this season of the year.

Vacation on the Farm

With the first hot blasts from summer's furnace, thoughts turn to the old hill farm. The house it-self, low-eaved, weather-beaten, with history written in every timegray shingle, spreads and clings to the hill-top. Under its low roof you will watch the dawn redden the window-panes, and drowsily listen to the whistle of the quail and the impatient lowing of the cattle, or sometimes to the steady patter of rain and the drip, drip of the eaves-trough. There is Brindle to be given an apple, the old sow to be scratched with a stick into grunting contentment, and the whinny of old Dobbin warns that he must not be forgotten. There are delightful drives, rare woodland retreats, woodgirt ponds to fish, old back pastures blue with berries, rare bits of scenery to be ad-mired anew each day in the belief that you are the first to discover them, rides up from the meadows on big loads of hay, your nostrils filled with the sweet odor the old farm knows. There are long, lazy hours in the orchard, and in the gloaming the drive to the village in quest of the mail, where you realize anew the spice of honest gossip, if only about the weather and the crops. The lover of golf will find natural hazards and bunkers enough to make his favorite game of interest, even though greens be lacking.-Country Life in America.

School teacher: Now, Bobby, spell needle.

Bobby: N-e-i-d-l-e, needle. Teacher: Wrong. There's no "i"

in needle. Bobby: Well, 'taint a good needle then .- Exchange.

FOR FARMERS AND STOCKMEN



