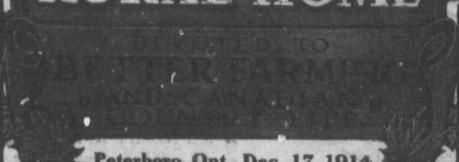
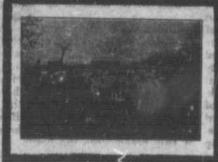


FARM AND DAIRY

&
RURAL HOME

Printed & Sold Separately
Dec. 17, 1914



Peterboro, Ont., Dec. 17, 1914



ISSUED EACH WEEK **Rural Publishing Co., Ltd., Publishers** ONE DOLLAR A YEAR

Our Biggest Manufacturing Concerns

Are always on the lookout for ideas and machinery that will increase their output and decrease the cost of production. That's why they make Money, and, as some think, "Make it hand over fist." But why should there be a difference in this regard between such firms and us farmers?



Note the heavy, compact construction and convenient height of supply-cans and discharge spouts. The top of the supply-can is only 3 1/2 ft from the floor.

The products of the farm eventually find their way to our cities where big prices are paid, especially for dairy products. But there's always room for more.

Now, why not take a tip from our Manufacturers, and while the cheese factories are closed down increase your cream production by installing a

Simplex LINK-BLADE Cream Separator

Our separator won't make your cows give more milk, but it will separate the milk you do get,—get you more cream— at a saving to you of labor,

time, and in the end these certainly mean money.

You may have had "harsh" experience with low grade machines but we can prove all we claim for the "Simplex."

Drop us a card to-night and we'll send you our literature. Remember that—

"The proof of the pudding is in the eating"

D. Derbyshire & Co.

Head Office and Works: BROCKVILLE, ONT.

Branches: PETERBOROUGH, Ont. MONTREAL and QUEBEC, P. Q.

WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

You Can't Sell Goods To a Man when He's Broke

But the great field of Canadian farmers are enjoying the harvest of a prosperous year. Dairy farmers alone will receive returns of over \$40,000,000 from dairy products, during 1914.

These are the people who will afford the best of farm and home equipment.

Plan your can paign to reach them.

FARM AND DAIRY is the direct medium to this great field of prosperous farmers. We've a proposition that will interest every man who sells in the farm field—a request will bring you full information.

Farm and Dairy, Peterboro, Ont.

Ontario Provincial Winter Fair a Success

Exhibits Unexcelled and Attendance Well Up to the Average

ONTARIO farmers are pressing business as usual. Ontario live stock breeders are optimistic and hopeful. This optimism found its expression in the wonderfully successful fair held at Guelph last week. In spite of the diverting interest of war the attendance was well up to the average of previous years, though not up to the record attendance of last year. During the first days of the week the crowds again demonstrated the inadequacy of the seating capacity in the judging arena. In spite of financial stringency and a natural slackness in business the live stock men of the province turned out with a record number of exhibits. There were distinct advances in the fat cattle, sheep and poultry departments. Swine and dairy cattle were on a par with last year's point of numbers, and horses

counties represented. Jersey men pointed with pride to the advanced position taken by their province. All breeds presented a uniform type that spells production. In this, too, this year's test scored an *ad hoc*.

Beef Cattle

Beef cattle coming back to their own in the fair that was first established for their benefit. All the available space was occupied this year. Shortage as usual predominated, and to this breed fell the honor of grand championship for the best beef animal of any breed, age or sex. The choice fell on a yearling steer in the finest of fit shown by Pritchard Bros., of Fergus, Ont., the constant in the classes of this breed were the herds of Kyle and Joubert Brothers. Drumbo; T. A. Russell, Downey; Adam Armstrong, Fergus; Jno. Brown & Son, Galt; D. A. Graham,

A Chance to Adopt Orphaned Children from Belgium

How many readers of Farm and Dairy are willing to adopt some of the poor orphan children of Belgium? We hope that a good many of you are.

A few years ago published on the front cover of Farm and Dairy an illustration of a number of children under the care of the Children's Aid Society of Peterboro, for whom it was drafted to find homes. Our appeal was successful. Some 70 applications for these children were received from all parts of the country.

In last week's issue of Farm and Dairy we announced our willingness to assist in bringing orphaned children from Belgium to their sufferings, and who feel that they would like to give them homes in Canada. This week's issue had gone to press before we had had an opportunity to hear from our readers in answer to last week's appeal. We are now corresponding with the Belgian Aid Committee, and with the Children's Aid Societies of Ontario, in the expectation of enlisting their cooperation. In next week's issue further announcements will appear. We would like to see the Women's Institutes of Ontario assist us in this movement. In the meantime we would like to hear from our readers as to whether any of our proposal, together with any suggestions they may offer for carrying it into practical effect.

showed a slight decline, although there was no lack of the keen competition of previous years.

The officially appointed lecturers and the men who discussed conditions in the domain of agriculture up and down the aisles of the fair building agreed that the splendid turnout of entries was a hopeful indication that stockmen are determined not to sacrifice their live stock in spite of the high price of feeding stuffs and the demand that the war may create.

Again and again was the belief stated that the ultimate effect of the war will be a greatly enhanced demand for all lines of pure bred live stock. Particularly was the advisability of holding on to all breeding cattle emphasized at the civic luncheon where national well-being was discussed by stockmen and statesmen. The same importance that attaches to agriculture during war time was probably responsible for the presence at the fair of Premier Hearst, Minister of Agriculture and also other members of the public life of the province.

Dairy Cattle

The dairy test filled the dairy stable and the annex in the main building. But both have been equally well filled in several previous years. Records, however, are of more importance in this section than mere numbers, and in this regard this year's fair established a new record. The sweepstakes cow made the highest score in the history of the fair. Even the second cow came higher than the grand champions of many previous tests. In another point, too, this year's test was notable—the great number of new exhibitors and the greater number of

Worming; A. Barber, Guelph; A. F. & G. Auld, Guelph; Frank W. Smith, Scotland; J. W. Duncan, Caldwell; and several others with a few entries.

Hereof were well represented by the herd of Jas. Page, Wallacestown, but competition was limited to a couple of entries by Henry Reed, Orton, and one each by Adam Armstrong and Jas. Bowman, Guelph. The last exhibit to be contested honors, with Jno. Lowe, Elora, in the Angus classes. Winning the championship on a heifer that to some looked good for the sweepstakes as a beef animal. The same heifer, who never succeeded in the pure-bred classes were also most prominent with grades and crosses with the name of Jas. Leask & Sons added.

The Horse Department

In this section of the show the emphasis was again on the draft classes and the Scotchman's horse most prominent in the ring. Although there have been no important changes in the usual exhibitors were out as strong as ever, so far as quality is concerned, and in many classes with over a dozen of entries. Canadian bred were out in force. Among those with long strings were Graham Bros., Clarendon; Smith & Richards, Columbus; Goodfellow Bros., Bolton; Jno. A. Bogg & Son, Queenville, and W. W. Hog, Thamesford. Most splendid animals were shown by long list of exhibitors, with only a entry or two for the consideration of Judge H. Starr, of Nova Scotia. Preliminary in the Ontario-bred class judged by Wm. Grant, were The

(Continued on page 7)

verage
by men
Advanced
ives. All
pa that
oo, this
ng back
was first
All the
his year.
ed, and
of grand
animal
e choice
finest
ron., of
to classes
of Kyns-
Downs-
us; Jno.
Graham,
en
ome
many
and
this
these
with-
fell
ed by
them
we
last
elief
the
furn-
er's
time
sur-
ving
A. J.
Smith
ou, Cal-
h a few
nted by
not down.
to a
eed, Or-
matrong
The last
th Jno.
classes,
a heifer
for the
The
useful in
so most
& Sons
the em-
t classes
most pro-
ough the
his year
his stron-
concern
over
n bre-
loss of m
Bro
hardo
Holte,
R. Ma-
n by
only a
ation a
ia. Pro-
e The

FARM AND DAIRY

& RURAL HOME



We Welcome Practical Progressive Ideas
Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham.
The Recognized Exponent of Dairying in Canada

Vol. XXXIII. FOR WEEK ENDING DECEMBER 17, 1914 No. 51

Marketing Fruit from the Middleman's Standpoint*

A Good Portion of the Consumer's Dollar is Required for Legitimate Distribution Charges

There are people under the impression if a grocer buys an article for ninety-nine cents and sells it for a dollar, he is making a profit of one per cent. Such is not at all the case. I have been in the grocery business in Toronto for over thirty years, and from my own experience, and the experiences of others in the trade, the expenses of a grocer reach from twelve to eighteen per cent on the turnover. So that if a retailer sells a basket of fruit for one dollar he must figure from the time that basket entered his store until it was handed in at the door of the consumer, it cost him anywhere from twelve to eighteen cents. Suppose it cost him the average fifteen cents—you can see that if the first cost of the article was eighty-five cents, and he sold it for one dollar, he is actually just breaking even, and no net profit whatever has been made.

The overhead expenses of a retail grocer include many items. There are wages to be paid the manager or proprietor, and the selling staff; there is rent or interest on investment, light, fuel, the up-keep of delivery horses and waggons, and drivers' wages; taxes, insurance, store equipment and fixtures; depreciation on everything; stationery, stamps, etc.; bad debts, which frequently necessitate the writing off of considerable money; and sometimes unforeseen occurrences, such as the death of a horse or the smashing of a delivery wagon in a runaway. Goods which we purchase and stock in our stores so as to have them convenient for the consuming public, must each and all bear their share of these inevitable overhead expenses. In the case of fruit and other perishable goods, there is always an additional expense of waste to be added, for no merchant, no matter how careful he may be, can gauge his purchases and sales correctly at all times.

Retailers Promote Consumption
I think you will all agree with me that the consuming public would not buy as much fruit and vegetables if they had to get their supplies direct from the country. The attractive displays of the retailers of Toronto every season are responsible for the great majority of sales, and if there were no displays to tender suggestion to

D. W. CLARK, RETAIL GROCER, TORONTO
the people, and if the consumers were left upon their own initiative to write or wire to the country for supplies, there would be a large amount of stuff go abegging. I would just like to see the retailers of the country give up the sale of fruit and vegetables for one year, and allow the consuming public to send to the country for everything they wanted. You can depend upon it

mission merchant. It seems to me to be the only fair way for you to market your goods. My reason lies in this: When the merchant buys from one party at a distance he has no choice in appearance and quality. The goods may be satisfactory today and to-morrow they may bring all kinds of complaints from consumers, and you must remember that we make good to our customers anything that is not right. Melons may arrive too ripe or too green; peaches may be off color, etc.

and as we are the final distributors we get the blame. If we purchase goods we cannot conscientiously recommend, we must lose in the price.

Methods Compared
But, on the other hand, when goods are bought from the wholesale market when competition is keen, we have our choice from scores of growers. If a retailer has a market for only one kind of fruit, he can personally select what he wants from all the offerings on the open market. A merchant, too, soon gets to know the shippers who send in the most reliable fruit and vegetables, and at the commission houses he has an opportunity of obtaining his daily supplies from one or another.

The dealer must also protect himself from the standpoint of price. Should he purchase direct from one shipper, he pays the one price. But on the commission market the prices are up to-day and down to-morrow, so that if the price a merchant has paid to his own shipper happens to be higher than the ruling commission market quotation—as it would frequently be—he must cut his retail price and lose his net profit. It is, therefore, much the safer method—despite the recommendations of many of the daily papers, and others, ignorant of the situation—and surely the most satisfactory method to buy our fruit and vegetables. Some of you will probably be able to point to instances to the contrary, but for the best interests of the larger section of the growers and retail dealers, the marketing system I have outlined must prove the generally accepted one.

There are too many disturbing influences in the trade. Supporting a man goes out to the country to visit a friend, and brings home with him what fruit he wants. He usually gets it at a lower price than the retailer can buy in
(Concluded on page 14)



This Test Winner Combines Production with Desirable Conformation
Roxie Peach, seen herewith, established a new high record this year for the Winter Fair Dairy Tests at Guelph. Her production of 234 lbs. of milk with 21.3 lbs. of butter fat in three days entitles her to the score of 277 points. Note, too, that this cow is of fine type, lots of substance, good conformation and attractive lines. Her owner is W. H. Cherry, Hagersville, Ont.
—Photo by an editor of Farm and Dairy.

there would be very little fruit consumed this year.

If, then, the retail grocer is a necessary link in the chain of fruit and vegetable marketing to secure the maximum turn-over, the next question to decide is the cheapest and best way for fruit and vegetables to reach his store. You growers, who obtain the maximum benefit from your crops, appreciate the fact that the harvest you produce should all find its way into consumption, and at prices that will bring you a reasonable net profit. If you produce more than a market can be found for, you lose. If the prices you receive do not pay you a net profit, you lose. Your aim is quite clear.

My opinion is that fruit can be bought to the best advantage by the retail dealer from the com-

*A paper read at the recent convention in Toronto of the Ontario Fruit Growers' Association.

Winter in the Dairy

By Elmer P. Woodworth

ON the general farm winter is the time of ease. When the worthy proprietor has attended to his few chores and got his supply of wood in from the bush, he has much time to himself. On the dairy farm the winter months are a time of comparative ease only. There may be more time for neighborhood visiting, reading, or just plain loafing, which is good for any man at times, but the good dairyman will keep fairly busy giving his cows every attention. He will realize that the cold climate of Canada is not the natural environment of the cow, and that in return for being kept in this climate she must be given the best of housing conditions, along with the right kind of food, in cold weather. Good cow keepers do not "rough" their cattle through the winter.

Feeding is the winter work of most importance. Of all qualities in feeds I would put palatability as of most importance, and in palatability, juiciness or succulence is the most important element. Dry feeding seems to dry up the whole system of an animal. Their hair and hide become harsh and hard. Both young stock and mature cattle assume a thriftless look when succulence is lacking from the ration. Juiciness on the other hand seems to regulate the digestive system for finest health and maximum production. Roots take first place for imparting succulence to a ration. Ensilage is a good second. A combination of the two is the ideal succulent ration for dairy cows. Lacking these, palatability may be imparted to a certain extent by sprinkling the hay or straw feed with a mixture of cheap molasses and water. We dairy farmers have not yet come to realize the full value of molasses for feeding purposes when succulent feeds are absent. The first winter that I kept cows the basis of the ration was very dry clover hay. This was made quite acceptable when liberally sprinkled with molasses that was purchased at 19 cts. a gallon.

Winter Feeding of Short Milkers.

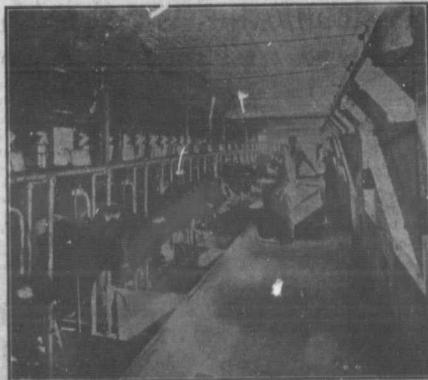
Summer dairying is still the system most commonly followed in Canada and most of the cows in our barns are either dry ready to freshen in March and April, or are giving very little milk. Will we feed a grain ration to cows such as these? Decidedly yes. For one thing it is surprising how well these cows supposed to be almost dry will milk if they are fed a fairly liberal ration of milk producing foods, such as bran, cotton seed, oil cake, gluten, or oatmeal. Even if the cows are entirely dry, however, liberal feeding is advisable. Through that feeding they are enabled to store up vitality and put on flesh, both of which will help them to do better on the pail than they have ever done before when finally they do freshen. In my experience, I have dealt with herds freshening in both thin and good flesh, and invariably the best results were obtained when the cow had been given a chance to store up vitality and nourishment through good feeding when she was thin and dry.

How shall the dairy cow be watered in winter? This is still a disputed point. I believe that the best system is inside watering. I am equally sure that cows are healthier and better able to resist disease when they are given daily outdoor exercise, and this they seldom get unless it is necessary to turn them out to water. It is decidedly beneficial for a dairy herd to be out in the fresh air, even if it is cold, on all but the

stormiest days. Of course, a windy yard is a poor place for this daily exercise. No better investment can be made on many dairy farms than the erection of a shelter fence, tightly boarded, 10 or 12 feet high. Better still it is to lay out the farm buildings around a sunny courtyard, which is the ideal exercise ground for dairy cows. I would not allow the cows to stand around long after filling up on icy water.

Stabling For Comfort and Health

Winter stabling should be designed for comfort and for health. The two do not necessarily go together. I would much prefer a well-ventilated, comparatively cool stable than one that was close and warm. The cows prefer the latter, but are healthier in the former. Light that reaches every corner of the dairy stable is the



A Stable Up-to-date in all its Appointments

In this stable is produced certified milk for Price & Sons, Toronto. The stable is designed to be sanitary and healthy. Notice how the windows are hinged to act as ventilators, the sanitary steel equipment and the permanent and cleanly cement mangers with their swinging partitions. Stables such as this are becoming more common as the importance of good stabling in profitable milk production becomes more fully understood.

best germicide and additional insurance of healthy dairy cattle. When we add to comparative warmth good ventilation and light, cleanliness and plenty of bedding, we have the ideal housing for the dairy herd in winter.

Shall we feed twice or three times a day? It depends on the cows. Where cows are milking heavily, it is advisable to feed three times a day. Cows giving a moderate quantity of milk to no milk at all will do equally well, better, I believe, on two feedings. If left to themselves through the middle of the day they will lie down, chew their cud contentedly, and make extra good use of two liberal feedings. The saving in labor is a considerable item.

Danger in Not Currying

Don't neglect to curry the cows regularly. Particularly is it important where we are producing city milk or cream, but it has significance from the standpoint of the cow herself. At certain times in the winter the hair on the body becomes very loose. This is licked off by the cow, and will form hair balls in the stomach, which greatly derange digestive processes. I never hear of this trouble, one that is well known to veterinarians, in any herd where the curry comb and brush are used at frequent intervals.

Winter is a most important season in the dairy barn, whether we practice winter dairying or not. If we practice winter dairying we will give our cows first attention for present results. He who is in summer dairying will see to their comfort and nourishment, knowing that the milk flow of the following summer will depend largely on the care given the herd now.

Advertise Your Live Stock

By E. L. McCoskey

THE modern business is started by advertising, kept going by advertising, and all real progress in it is made through advertising. The modern breeding business is almost as dependent on advertising as is the manufacturing business. Just stop for a minute and let us think of the five most prominent breeders of the particular breed that we favor. Almost instinctively the names that we see most frequently in the advertisement columns of our farm journals will come to our mind. This is true in at least nine out of 10 cases. The breeders who are best known are big advertisers. They do not advertise because they are prominent. They are prominent because they advertise.

The local market is the only market available to the man who depends on the casual buyer to get rid of his stock. By advertising, he can reach the national market, he can greatly increase the number of possible buyers, and hence his chances of selling at something more than a local price. Some breeders would never have received a decent price for the good stock they had to sell had they not made their needs known to national publications. Here are some cases in point.

A Calf For \$350.

A young farmer living 13 miles from a railway station had invested \$300 in a pure-bred Holstein cow. None of his neighbors were particularly interested in the Holstein breed, and locally he could not have sold the first bull calf that came from his pure-bred cow for more than \$50 or \$75. He decided to give advertising a trial. He got many inquiries, but did not realize a sale from the first ad. He persevered, and finally sold the calf for \$350. Altogether he did not spend over \$10 or \$12 in advertising.

Another young man somewhat similarly situated found himself last spring with three bull calves to dispose of. Locally they were worth little more than they would bring for beef. Through advertising they were all sold in a distant province, and all sold at remunerative prices.

The best results in advertising are not secured by intermittent advertising, but by the one who keeps his name before the public all the time. The grocer who boarded up his windows and locked his doors for several months in the season would obtain but little success in building up a trade. The breeder of live stock who places his name before the buying public for only a few weeks in the year will never build up the best kind of a connection. Better to run an ad. that you have nothing for sale at present, but telling about the fine stuff that you will have in the month of April. The medium to select for advertising is, of course, the one that seems to reach the largest number of people who naturally want the thing you have for sale. With the medium properly selected and an advertisement properly worded, the breeder is well on his way to realizing profitable prices for his surplus stock.

War is never justifiable in itself. It is the end that justifies the means. If the great struggle of the present results in disarmament and the end of autocratic authority in Germany, it may prove a blessing in disguise. But why should such a terrible means be required to attain such a desirable end among so-called Christian nations?



A Comfortable Home and Substantial Buildings Characteristic of the Best Dairy Farms of Eastern Ontario

These buildings are the centre of activity on the 100-acre farm of Mr. J. White, Peterboro Co., Ont. The milk produced on this farm is retailed in the city of Peterboro — Photo by an editor of Farm and Dairy.

When to Breed the Mare

J. R. D., Renfrew Co., Ont.

SPRING foals arrive at a time when horse labor is greatly in demand for seeding operations. Is it any wonder, then, that the foal dropped at this time does not get a fair start in life? In the past, practically all of our foals have arrived in the spring, and the disadvantages of the system are now clear to us. The fact that the intervals between the foal's meals are so long makes best results impossible. The hard work that its mother must perform decreases her milk flow, and her foal is apt to be decidedly underfed.

We have found this system to be hard on our mares. Working steadily and attempting to suckle their foals pulls them down in flesh, to say nothing of the effect caused by worry at the separation. Another advantage we hear chalked against the prevailing plan is found in lost time. Coming in from the fields at short intervals to allow the foals to drink, and separating the horses from one another before meals and from their foals after meals uses up energy that is needed in preparing the seed bed. We have fully decided that our old system is hard on the foal, on the dam, and on the teamster. A few farmers of our acquaintance have commenced to raise autumn colts. They claim many important advantages for this method. The mare's services, as we all know, are seldom required during the winter, and she need not be separated from the foal during the suckling period. The owner has also more time to devote to the youngster, and it receives better care than its spring-dropped brother or sister. Then, too, it escapes the worry of flies during the first months of its existence.

The reason that we have not adopted this plan sooner was lack of proper housing accommodation for fall or winter foals. Recent experiences of our neighbors have shown us, however, that a little fixing up will put us in possession of suitable quarters. Another disadvantage of fall foaling at present is that the choice of sires is considerably more limited in the fall of the year. We are planning to give the newer system a try-out this fall.

Our advice to the farmer who can not or will not raise fall colts had better have them come after the greater part of the spring work is done, say about the middle of May. The mares can then be given a couple of months' run on the grass before having commences, and the foal causes little bother, and acquires the habit of looking out for itself before it is necessary to separate it from the dam for even short periods.

The slow work of putting in the crop is not as hard on a mare carrying a foal as on a mare suckling one.

Fertility Values

L. M. E., Colchester Co., N. S.

THE value of barnyard manure can be determined by watching results the first season after application. On a farm in the Stewiacke Valley in this county, with which I am intimately acquainted, are some eight or 10 fields. One of these fields is always expected to outyield the others at least two to one. The difference in yield is explained by an application of 48 loads of manure to the acre, almost 10 years ago. This inordinate application was the result of a hired man misunderstanding his orders, but it has certainly given a splendid example of fertility values. Such an application was a foolish one, but it has been bearing results for 10 years.

I have a gravelly field on my own farm. Four years ago I dressed this with 15 loads of manure to the acre, and planted with potatoes, mangels and turnips. The part of the field that has received manure yielded at least 50 per cent. more crop than the acre or so that had been missed.



"A Fence Corner Pastoral"

We were quite satisfied that the superior crop of roots had paid for the manure and that that would be the end of it so far as any noticeable results were concerned. Last year the field was in oats and the manured portion yielded ever more favorably in comparison with the untreated portion than had been the case the year before. Since then I have taken one big crop of clover and one of mixed hay off the manured portion and a very slim crop off the rest.

If I were to take into consideration the extra crops received in the last four years, the manure applied has been worth a good deal more per ton than it has been credited with in the most optimistic government bulletins. It has shown me, above everything else, the value of conserving every pound of fertilizer produced on the farm.

Winter Feeding of Sheep

"Ontario Shepherd," Ontario Co., Ont.

THE most successful shepherd I have ever known never made less than 100 per cent. profit on his flock over and above all expenses, including labor. He owed his success to splendid natural conditions for sheep husbandry. He had abundance of well-shaded pasture for the sheep in summer. Not far from the buildings was a natural swamp quite densely wooded, and in which the grass grew very long in summer. In the winter the mucky ground froze solid, and here the sheep ran all winter, with only a cheaply constructed shed for shelter in damp weather. In this shed they were fed a very little clover hay and some grain. Quite a bit of their feed they obtained for themselves in the swamp.

Many of us lack these ideal profit-making conditions, but that is no reason why we should not make a profit from sheep. We are well satisfied with the profits that we are making at Spring Farm, although our conditions are no better than the average found on farms in Ontario. The winter quarters of our flock consists of a cheap shed on one side of the barnyard, which the sheep can enter at will. The roof is waterproof, but otherwise the construction is of the cheapest. This shed is always well bedded, as sheep must be kept dry above all other things. The yard, too, in which they run in winter is bedded in dirty weather with wheat straw to keep their fleeces clean. In this shed we do all the feeding.

Alfalfa Ideal Roughage

We have found that the ideal roughage for sheep is second crop alfalfa. Lacking that, we would feed the best clover hay we have. Corn stover is also appreciated by the flock, but they have not got much of that since we built our silo. Silage, fed in limited quantities, is better than the stover, and at the same time affords suc-

cellence. There was a time when we considered that we could not winter sheep without turnips, but the silage has been giving such good results and is so much cheaper than turnips, that we have almost given up feeding roots. Mangels, when obtainable, are good for the ewes but dangerous for the rams.

When we have good alfalfa or clover hay along with ensilage or roots for succulence, we find that very little grain is needed. What we do feed is fed in the sheaf, and in this way threshing bills to some extent are avoided and the straw affords some slight variation in the diet of the flock.

Part of our market lambs are carried through the first winter. If the market is strong we
(Concluded on page 18)

Consignment Sale



OF
60 HEAD OF PURE-BRED 60
Ayrshire Cattle
From the Herds of the
Southern Counties' Ayrshire Breeder's Club
To be Held at
Builer's Sale Barn, Ingersoll, December 30th
AT ONE P.M.

Offering consists of show cows, record cows, dairy test winners, high-class young bulls and heifers with breeding that spells production.

Come and see these beautiful animals. Select one or more and keep close your interest on the farm.
We are going to make this an annual event, and invite all interested in dairy cattle to attend whether you want to purchase or not.
Every animal pledged to absolute sale. Low rates on all railroads.
Terms—Cash or credit up to six months on bankable paper, interest at 4%
Catalogue ready. Send for yours today.

JOHN McKEE, President J. L. STANSELL, Sec.-Treas.
Norwich, Ont. Straffordville, Ont.

MOORE AND DEAN, Auctioneers

Splendid Scores in Guelph Dairy Test

The Dairy Test of 1914 at the Ontario Provincial Winter Fair will long be remembered. The keen competition that characterized every class, the high records made, and the unusual number of new exhibitors indicate that dairymen are progressive and their industry thriving. The herds that were represented at Guelph last week were mostly from western Ontario. Some sections of the east, however, were well represented, as the list of exhibitors proclaims. Dairy breeders in this test proved that they are conducting "business as usual," and even "unusual."

The premier honor of the test fell to a pure bred Holstein cow, Rosie Posch, owned by W. H. Cherry, Hagersville, Ont. Her splendid production of 263.6 pounds of milk testing 3.6 per cent. butter fat in the three days, entitled her to 207 points of score, believed to be the highest ever awarded to any cow of any breed at the Guelph Fair. Rosie Posch is more than a producer; she is a cow of beautiful conformation, broad behind, deep-bodied, and does not look too much daylight showing underneath. The same compliment may be extended to the Holstein exhibit taken

as a whole—they were bigger-bodied, lower set, stronger constituted animals than have represented the breed in some previous years. Gradually the breed is becoming of more uniform type.

Competition for first place was between Mr. Cherry's fine pure-bred cow and a grade shown by G. B. Ryan of Courtland, Ont. Mr. Ryan will be remembered as the exhibitor of the grade Holstein, Cherry, which won the championship honors in the same test two years ago. His entry this year showed little of her grade breeding. The high score that she made, higher than the score that entitled "Cherry" to the championship two years ago, is a tribute to the value of the pure-bred sire in improving the producing powers of grade stock. This same cow made Mr. Ryan an income last year of \$900.
Ayrshire classes numbered some of the old-time breeders back again after a year or more of absence and some new ones. Jno. McKee's Scottie's Victoria headed the Scottish breed with 540 points made on 171.6 pounds of milk testing 4.5 per cent. butter fat. H. C. Hamill had an entry that added additional evidence to the

Ontario Provincial Winter Fair Dairy Test Awards

AYRSHIRES—Cov. 48 Months and Over.	Lbs.	Lbs.	%	Tl.
milk.	fat.	fat.	pts.	
1—Scottie's Victoria—John McKee, Yorkville	171.6	7.73	4.5	540
2—Dew Drop of Manie-W. Stewart & Sons, Campbellville	155	6.25	4.1	499
3—Violet of Craigleas—H. O. Hamill Box Grove	130.4	4.36	3.35	446

Cov. 36 Months and Under 48.	Lbs.	Lbs.	%	Tl.
1—Craigleas Peach—H. O. Hamill	159.9	6.38	3.9	496
2—Fairmount Beauty—John McKee	123.5	5.26	3.75	448
3—Scottish Victoria—John McKee	129.2	2.42	3.5	448

Heifer, Under 36 Months.	Lbs.	Lbs.	%	Tl.
1—Billhouse Blossom—F. H. Harris, Mt. Elgin	108.7	4.55	4.2	449
2—White Lady of Craigleas—H. O. Hamill	118.5	4.20	3.9	445
3—Dorcas Bess's Scotch-John McKee	107	4.35	3.8	425
4—Sarah Douglas—John McKee	107	4.12	3.85	415
5—Craigleas Gem—H. O. Hamill	97.9	4.11	4.2	417
6—Duchess of Tilmore—F. H. Harris	108.3	3.90	3.5	417

HOLSTEINS—Cov. 48 Months and Over.	Lbs.	Lbs.	%	Tl.
1—Bodie Posch—W. H. Cherry, Hagersville	263.6	9.13	3.6	957
2—Concieve Butter Gem—Jas. G. Currie, Ingersoll	229.8	7.92	3.46	859
3—Madam B's Aida Alma—W. F. Walker, Port Perry	200.6	7.65	3.8	844
4—Netherland Schilling—W. B. Siger, S. Jarvis	223	6.52	3.9	829
5—Sarah Douglas—John McKee	179.9	6.23	3.4	792
6—Craigleas Gem—H. O. Hamill	154.6	5.58	3.6	720
7—Silent Calamity—Henry, Walsh, Weston	214.6	6.54	3.05	820
8—Maries Helen De Kol—J. K. Moore & Son, Peterboro	156.6	4.30	3.05	809

Cov. 36 Months and Under 48.	Lbs.	Lbs.	%	Tl.
1—Midnight Comet De Kol—J. G. Currie	213.7	8.50	4	909
2—Highland Lancelot Merceus—J. G. Currie	222.9	8.16	3.65	943
3—Madam Pauline—W. B. Siger	182.7	6.26	3.4	825
4—Iantha Jewel Franco—Lettie Bro, Norwich	169.9	5.67	3.3	807
5—Maries's Francy De Kol—J. K. Moore & Son	203.4	3.20	3.1	811

Heifer, Under 36 Months.	Lbs.	Lbs.	%	Tl.
1—Pontiac Aline Franco—Lettie Bro., Norwich	168.4	6.97	4.1	816
2—Mutual Pauline Pasti—H. E. Holtby, Port Perry	151.4	4.69	3.65	811

SHORTHORNS—Cov. 48 Months and Over.	Lbs.	Lbs.	%	Tl.
1—Gipsy—A. Stevenson, Atterton	147.7	5.04	3.5	476
2—Kentucky Rose—Wm. J. Beatty, Guelph	108.5	3.68	3.4	430

Cov. 36 Months and Under 48.	Lbs.	Lbs.	%	Tl.
1—Butterfly Bloom—W. J. Beatty	97.3	4.58	4.7	450
2—Heifer, Under 36 Months				
1—Branche Beauty—W. J. Beatty	69.1	3.22	4.75	416

JERSEYS—Cov. 48 Months and Over.	Lbs.	Lbs.	%	Tl.
1—Brampton Bright Bramson—H. H. Bull & Sons, Brampton	149.3	7.017	4.7	819
2—Sadie Mae of P. F. H. H. Gee, Hagersville	148.8	6.994	4.7	812
3—Clara-Ira Nichols, Woodstock	90.3	5.603	6.1	474
4—Brampton Patriotic—H. H. Bull & Sons	99.4	5.528	6.3	469

Cov. 36 Months and Under 48.	Lbs.	Lbs.	%	Tl.
1—Springham Bitter Girl—D. A. Boye, Woodstock	130.7	4.804	4.9	494
2—Brampton Bright Kathleen—H. H. Bull & Sons	121	5.554	4.6	474
3—Brampton Bright Betty—H. H. Bull & Sons	85.9	4.75	5.5	413
4—Brampton Bright Gladys—H. H. Bull & Sons	92.6	3.34	4.75	446

Heifer, Under 36 Months.	Lbs.	Lbs.	%	Tl.
1—Golden Lady's Dot—Wm. V. Nichols	90.4	4.885	5.4	449
2—Brampton Stockwell Red—H. H. Bull & Sons	83.4	4.90	4.7	428
3—Brampton Bright Kathleen—H. H. Bull & Sons	96.1	4.137	4.3	430
4—Brampton Bright Gladys—H. H. Bull & Sons	93.1	4.15	4.5	430

GRADES—Cov. 48 Months and Over.	Lbs.	Lbs.	%	Tl.
1—Becky—D. B. Ryan, Tillsonburg	227.5	8.637	3.8	877
2—Bonks—W. J. Beatty	111.3	6.009	4.5	450
3—Mona—J. K. Moore & Son	149.7	4.41	2.9	102

Cov. 36 Months and Under 48.	Lbs.	Lbs.	%	Tl.
1—Valentine Bel—Wm. S. Shaver, Lidwood	126.4	6.021	5.1	506
2—May—J. K. Moore & Son	173.2	3.954	3	476
3—Fagg—Ira Nichols	108.5	3.809	3.05	416

Heifer, Under 36 Months.	Lbs.	Lbs.	%	Tl.
1—Bar—G. B. Ryan	123.3	4.191	4.4	447
2—W. J. Beatty	112.6	4.128	4.2	434
3—Polly—J. K. Moore & Son	108.5	3.809	3.05	416

SYDNEY BASIC SLAG

THE FERTILIZER FOR ONTARIO FARMERS

A Word to Those who are Already Using Fertilizers

Our advertisements have been appearing week after week with a view to getting you to use Sydney Basic Slag on your farm. If you have already used Fertilizer you know their value and no argument is needed to prove that they pay to use. All that concerns you now is to discover where you can buy the article that will give you the best return at the lowest cost and that is where we come in.

Sydney Basic Slag applied pound for pound against any other Fertilizer you have been using will give you at least as good results at a cost of about \$10 per ton less money.

Is it not worth your while to put this statement to the test? Hundreds of the best Ontario farmers who have used Sydney Basic Slag for the last two seasons can testify as to its truth. Perhaps if you write us we can give you the name of a farmer in your own neighborhood who has used our goods.

A Word to Those who have Not Yet Used Fertilizers

Now is the time to begin. The food production of Europe will be seriously curtailed in consequence of the war, and high prices are bound to prevail for the next few years. Here is an opportunity for the Ontario farmer to combine profit with patriotism. He can render valuable assistance to the Motherland and her allies by increasing his production of food all his crops. If we have no agent in your district, I think you could place an order from the factory, or better still, if you like, you could have a ton or two of 30 tons among your neighbors, write us at once and we will instruct our General Sales-Agent to give you a call and talk the matter over.

GENERAL SALES AGENTS

We need a man in each County in Ontario capable of appointing agents to sell these goods. The right class of man, that is a man with a personal knowledge of the leading farmers in his County, will find this a profitable proposition for about six weeks' work twice a year.

Descriptive pamphlet giving all particulars on application to:

The Cross Fertilizer Co., Ltd.
SYDNEY, NOVA SCOTIA

value of
of prod
bul F
money.
were mi
but will
Jersey
anted, H.
had to r
son Bris
point of
A. Bow
extrastr
turing
classes
were a
Dairy
represent
the reco

Ontario
McMich
son & S
owners F
The C
Assott, J
Baron A
best hor
same fir
Bloomer
bred sta
party of
Canadian
Miller, I
Percho
stronger
may be
supply of
this year
have a le
Canada,
cidedly i
pion man
and exhib
dale, Be
was exhib
ton. An
R. Ham
Porter, J
Markhan
Light
the galle
bers and
the prod
broods a
strongly v
as were
cess Win
Bills,
Laddis,
bred sta
Stock B
Mary I
Farm.

Never
the shor
year. A
decline i
province
Canada
Drummo
lamb, at
pen of S
Bramton
was from
son, H. M
Rhine
hibitors
wells bro
Litt.
Ridgston
ford; Sa
J. Lloy
were con
by H. I
Guelph;
Jno. S.
Joc. Lir
& Son;
Jas Cla
Roy, Mich
Oxford
Witham
foot. All
A. Cora
& Sons,

FARM AND DAIRY

AND RURAL HOME
PUBLISHED EVERY THURSDAY



SUBSCRIPTION PRICE, \$1.00 a year. Great Britain, \$1.50 a year. For all countries, except Canada and Great Britain, add for postage. **ADVERTISING RATES.** 15 cents a line for an inch an insertion. One page 40 inches, one column 12 inches. Copy received up to Saturday preceding the following week's issue.

UNITED STATES REPRESENTATIVES
STOCKWELL'S SPECIAL AGENCY
Chicago Office—Peoples Gas Building.
New York Office—Times Building.

CIRCULATION STATEMENT
The paid subscriptions to Farm and Dairy amount to 15,000. The actual circulation of each issue, including copies of the paper sent subscribers who are absent in the army or navy, and sample copies, varies from 15,700 to 17,000 copies. No subscriptions are accepted at less than the full subscription rate.

Signed detailed statements of circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

Refunds shall not ply their trade at the expense of our subscribers, or their friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company Limited
PETERBORO, ONT.

"Read not to contradict and to refute, nor to believe and take for granted, but to weigh and consider."—Bacon.

Get-Together Meetings

Why does the middleman refer the consumer to the producer when the former complains of the high cost of farm products? Why does the producer refer the customer back again to the middleman on the same question? Is it not because neither producer nor middleman knows of the problems of the other? The two do not get together often enough. Get-together meetings might be mutually beneficial in getting to the bottom of that ever-pressing problem, the high cost of living.

A start was made towards such a meeting at the last convention of the Ontario Fruit Growers' Association. Mr. D. W. Clark, a retail grocer of Toronto, was invited to present the retailer's side of the question at a convention of producers. Mr. Clark's address in full is given on pages three of Farm and Dairy this week. He proved to the satisfaction of his audience that the retail middleman is not making immense profits, but on the contrary works on a small margin. The producers who heard him knew that they had a hard enough time to make ends meet. And yet the paradox remains—that the consumer pays much and the producer gets little.

At the conclusion of the meeting we ascertained that Mr. Clark pays \$1300 rent yearly for his store. He told us that his employees generally calculated that it would take one week's pay each month to square them off with their landlord. Do not these figures throw light on the problem? If Mr. Clark had to meet only one-half of his rent out of his profits in the apple business, he would have to sell six hundred barrels at a profit of one dollar a barrel before he could pay his landlord. He would then have to sell many barrels more to meet the overhead charges of the business before he would have a

cent of profit for himself or wages for his time and superintendence. The wages that he must pay his help are increased by the high rents that they pay to Toronto landowners. In addition to this the wholesale dealer, from whom Mr. Clark purchased his supply of apples is a heavy rentpayer, and his rent must come out of the same apples that Mr. Clark retails to the consumer.

There is a steadily growing conviction that, as in Mr. Clark's business, the landlord is the great middleman. His exactions are based chiefly on the value of the land which he holds, which value owes its existence to the people themselves. If a greater proportion of the annual rental of these community values were turned into the state in the form of taxes each year, not only would city land values decline to their true level with a consequent reduction of rents, but taxes on improvements would be removed, making business still less costly. This desirable end can be accomplished by adopting the suggestion now endorsed by the organized farmers of Canada, that of placing all the burden of taxation on the unimproved value of land.

Poor Land Conservation

THE State of Minnesota is showing much wisdom and foresight in dealing with the poor and barren lands that are still in its possession. A recent amendment to the constitution provides that all state land unfit for farming shall not be sold, but preserved as state forests. In the state there are one million acres of these lands, which would become a barren waste if cut over under ordinary conditions. Under the new dispensation they will become a permanently profitable resource, profitable not only to the state as a state but to the people who inhabit it. These large forest areas will supply raw material for wood-using factories, which will employ many men. All of these people will be consumers of the products of Minnesota farms. All of this means greater prosperity.

Canada has much land of the same class that Minnesota is now dealing with so effectively; much more infertile land, in fact, than we are generally willing to admit. Where this land has been cleared, it either remains a barren waste, or is cultivated by people who get such scanty returns for their labor that some of them have drifted into a state of semi-savagery. Much of this poor land, however, is still covered with natural forests. Now is the time to deal with it in a business-like way before additional areas have been denuded by the lumber men. Ontario has great areas of such land in the older counties, and also in the new north. Quebec, the Maritime provinces and British Columbia, have even greater areas. Why should not our provincial governments follow the wise lead taken by the state of Minnesota? The first step would be a complete soil survey; the next, the reservation of all land shown by the survey to be unsuitable for profitable agriculture.

The Profitable Farm

THE basis of successful and profitable farming is a fertile soil. Nature's way is to return to the soil just as much as is taken from the soil. The leaves of the forest trees fall to the ground immediately beneath, carrying back the fertility extracted through the roots. The grasses of the prairie rot back each year, and the rich prairie soil is the result.

The pioneer refused to learn from nature. He took liberally from the bounty of the earth, but returned nothing. At first he harvested splendid crops. Ultimately nature shut down on him, and to-day we find ourselves obliged to return to nature's ways in our treatment of the land.

First and above all things, we must maintain the fertility of our soils. The dairy farm, on which the crops raised are consumed on the farm and returned to the soil, is going a long way towards maintaining the balance of fertility. The dairyman who buys concentrated feeding stuffs in addition for the feeding of his herd, may actually enrich the soil.

Lop-Sided Management

IN all our surveys we have found that the quality of cows is not at all the most important factor in making a profit. This is especially true of dairy farms, where we have found that the quality of the cows kept is by far the most important item. If the cows are poor it is impossible to profit no matter how good the crop yield. The cows are the customers for the farm crops, and if they don't pay good prices the farmer loses money.

So said Dr. W. J. Spillman, of the United States Bureau of Farm Management, in a recent interview. Dr. Spillman speaks with authority. His department has made thorough surveys of two thousand seven hundred and thirty-one farms and his conclusions are not apt to be far astray. In the survey of these farms the investigators probably came across many instances similar to the one that particularly interested us this summer.

We were visiting a young farmer in Halton County. The farm was well laid out, the crops were splendid, and there was evidence of good management in everything that we saw. The home, however, bore all of the evidences of hard and necessary economy. Milking time revealed the flaw in the management. The cows were of the kind that are good for neither milk nor beef, a type that is altogether too common even in some of the best farming sections of Canada. It was on these cows that this farmer was depending for the conversion of his crops into marketable products; in his case cream for shipment. He did not recognize the importance of good cows, and he is paying dearly for his indifference.

The model dairy farmer is the one who, when he has produced good crops, takes care that he feeds them only to cows that can handle them profitably. The farmer who neglects either end of his business is a lop-sided manager.

Leadership from Within

THE rural districts of Canada will reach their highest development only under their own rural leaders. Our leaders must be men brought up on the soil, men who have earned their living from the land and know from first hand experience the problems that confront the farmer. We have a tendency in America to attribute to the man who has made a success in some one line, a wide knowledge in all lines and look to this successful one for advice in lines of industry with which they have had no experience. As a most widely advertised success has been made in the city, we have been turning to the city for leadership in the solution of rural problems.

Prof. Dean never spoke a truer word than when he said that what was needed in Canada is an "agricultural Moses." City leaders are not even remotely fitted for rural leadership. We must learn to set greater value on those men of organizing genius who stay with us on the farms. And they are with us already. What leaders in Canada have done more in the way of rural constructive work than Crearer or McKenzie of the farmers' movement in the West, or Good, Morrison or Drury in the East? Let us get behind these leaders, who are men of our own calling, and work together with them for a better and more prosperous rural Canada. Let us show our faith in our leaders who come from within.

The Dairy Meeting at Guelph

The creamery men and the makers of cheese of Western Ontario may be rivals in a business sense, but this rivalry is not present in the atmosphere of their general meeting at Guelph. Each December the dairy-men gather to thir one meeting of the year, devoted entirely to a discussion of the problems of the factory. This year there was no flagging in either interest or attendance. Some of the universally perplexing problems were discussed frankly and a solution brought nearer. Without any set speeches discussion filled every minute of the afternoon.

For the Cheese Men

The patrons' interest in good milk for the cheese factory was made abundantly evident in a report of experimental work in the Dairy School. Seventeen different experiments were made with overripe milk testing .205 acidity and normal milk testing .17. Cheese made from the overripe milk showed a shrinkage of 2.68 per cent in the first month. The shrinkage in the same period of cheese from normal milk was 1.95 per cent. In the first place the cheese made per 1,000 lbs. of milk was 89.63 lbs., in the second 89.88 lbs. At present prices the patron loses 90c on every 1,000 lbs. of overripe milk he sends to his factory. The opinion was general that if patrons generally could be made to understand their financial loss through poor milk they would try to improve their methods.

Among the other experiments of interest to cheese makers summarized by Mr. Bird one dealt with acidity at time of dipping. In vat (a) curd was dipped at .149 and vat (b) at .175. The yield of cheese was a little over one pound per 1,000 lbs. milk in favor of the milk dipped comparatively sweet.

In individual experiments, however, it was found that during the cool months cheese dipped with comparatively high acidity scored better and in warm weather the reverse. The cheese maker must exercise judgment in the question of acidity.

At what temperatures do cheese ripen best? Cheese made from the same vat were divided into three lots. Lot (a) was taken directly to the cool room at 40 to 45 degrees, lot (b) was held in an ordinary room one week and lot (c) in the same room for one month. Results in shrinkage to ripe cheese were (a) 2.15 per cent; lot (b), 3.36 per cent; lot (c), 3.99 per cent. The three lots scored respectively 93.45, 91.85 and 89.94 per cent.

For the Creamery Men

Miss Bella Millar, of the Dairy School, dealt with cottage and butter-milk cheese. The speaker estimated that 12 lbs. of buttermilk cheese could be made from 150 lbs. of buttermilk. The difficulty in utilizing this cheese as a side line is that the market is limited. Miss Millar suggested as another market for buttermilk that the water be eliminated and the curd barreled for chicken feed.

Western Ontario tends more to butter than to cheese, and the greater part of the discussions dealt with creamery problems. Of first importance was the discussion on cream grading. Mr. Mack Robertson opened the discussion when, as a means of improving the quality of our creamery output, he advocated, in addition to pasteurization, grading and paying for quality. In some previous years the latter question had been discussed in a purely theoretical manner. This year Toronto creamery men, Messrs. Duncanson and Mearns, were present, who have been grading for several years, and with excellent results in improved quality.

As another method of improving quality the question of instructor

visiting patrons came up for discussion. The instructors have found creamery men apparently unwilling to have them visit their patrons and they wished to know the reason why. It was agreed that it would be impossible for instructors to visit all of the 30,000 patrons of Western Ontario creameries. It was suggested that creamery men keep track of the patrons whose test is low or whose cream is otherwise unsatisfactory. The instructors could then visit these patrons only and to the most good in a minimum of time. This suggestion grew out of an experience of Instructor Smith, who had visited along all four routes of a creamery to find all the trouble on one route. Hence three-quarters of his time at that creamery was wasted.

Lack of Uniformity in Salting.

Lack of uniformity in salting is still a cause of complaint. J. B. Muir, Ingersoll, President of the W. O. D. A., who presided at all the sessions, said that while carloads of uniform salting could be obtained at Montreal any time a single uniform carload was almost impossible to obtain in Western Ontario. Mr. Muir also complained of excessive salting. These difficulties, it seems, are largely traceable to guessing at the amount of fat in the churn. Mr. Robertson described the method followed in one creamery whose product is uniform. The depth of cream in a vat is measured with a rule. Then with the weight of cream and its test known, the salt is weighed in, not guessed in. Mr. Geo. Barr, Dairy Branch, Ottawa, explained the uniform salting of Quebec butter by the fact that a uniform cream is skimmed at the factory and the fat content of a churn is thus always easily determined.

Experimental work with testing was (Concluded on page 13)

Stop that cream leak NOW with a DE LAVAL Cream Separator

WHY continue to separate cream by either "gravelly skimming" or an inferior worn out cream separator that loses cream for you every day just as surely as a leaky cream can?

You may have less milk just now, but with "old" milkers and cold weather your cream loss is greater than in spring or summer. Cream is worth more now, too.

If you will test your skim-milk in a milk test you will see for yourself that you can't afford to wait until next spring. Let the

De Laval start saving cream for you right now and it will earn a large part of its cost by spring. See the nearest De Laval agent at once, or if you do not know him, write us direct for any desired information.



DE LAVAL DAIRY SUPPLY CO., Limited

PETERBORO WINDMILL MONTREAL WINNIPEG VANCOUVER

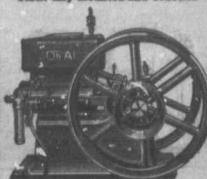


BOOK ON DOG DISEASES

Mailed Free to any address by the Author.
H. CLAY GLOVER, V.S.
116 West 31st St., N.Y.

GASOLINE ENGINES

1 1/2 to 40 H.P.
Stationary Mounted and Tractor



WINDMILLS

Grain Crushers, Water Motors, Saw Frames, Pumps, Tanks, etc.
WOOD, SHAPLEY & MUIR CO., LTD.
Remond Windmill Engine Calvary

COTTON SEED MEAL

\$50.00 PER TON
Good Lock Brand guaranteed 41 per cent protein. Cash must accompany order.
H. FRALEIGH, Box 2, FOREST, Ont.
Also dealer in Flex Seed, Linned Meal and Poultry Feeds.

Wholesale-Frischen Association of Canada

Applications for membership, transfer and membership, as well as requests for blank forms and all information regarding THE FARMER'S MOST PROFITABLE CO-OP, should be sent to the Secretary of the Association.
W. A. CLEMONS, ST. GEORGE, ONT.

Peck, Kerr & McElderry

Barristers, Solicitors, etc.
415 Water St., Peterborough
E. A. Peck, F. D. Kerr, V. J. McElderry

We'll Build Your Barn

Don't worry your head over plans. We have over two hundred plans of barns actually built for Canadian farmers which you can pick and choose from. We'll make any alterations to suit your needs or we'll get up entire new plans for you. If you want to remodel or make any changes, we have experts who can do your planning for you—tell you what the change will cost, and do the work if you want them to.

In all our plans we pay particular attention to light and ventilation and to the most modern and convenient layout of every foot of space. Our Steel Truss Barn which we have been erecting for farmers for the past two years, is giving the best of satisfaction. Owners tell us that if they had other barns to build, they would be Steel Truss.

These men told us the size barn they wanted and gave us an idea of the layout. Our men then gave them working plans for the stable and foundation. When the foundation was up we had our builders on the job to put up the balance of the building in eight to ten days' time.

There was no worry or fuss to get men to do the job—no cutting timber in the bush—no hard work for the women folk feeding a large crew of men. We furnished all the material for the barns we erected and the Steel Trusses, the Acorn metal covering, the hardware, lumber, etc.

We made the barns fire and lightning proof, and can supply our Acorn Lightning Proof ridge, approved by Prof. Dwyer of the O.A.C.

For those who want a lighter and cheaper wood construction, we are prepared to erect the latest type of Plank Frame Barns.

We have letters from those for whom we have erected Steel Truss Barns, telling us of their satisfaction. We want to put these letters and our entire set of plans before you, so that you will know just how we can serve you.

Send your name to-day for plans. They are free. Our entire plan service is free to those who are going to build.

The METAL SHINGLE & SIDING CO., Limited

PRESTON, ONTARIO

Factories at Montreal, Toronto, Preston, Winnipeg, Saskatoon, Calgary and Regina



THE way of happiness can only be found if it is not deliberately sought.—*Claudius Clear.*

A Farm Girl's Experience in the City

By ANNIE WOODWORTH
(New England Homestead)

ELLEN Hartwell, always had a great longing to go out into the world and earn my own living. Like all young people ignorant of life, I imagined that in carrying out this desire I would meet with no especial difficulty. That portion of the universe in which my lot had been cast was a fair and delightful region of country, but its remoteness from the larger towns and cities was a big drawback in my eyes. The old saying: "Far fields are green," is a true one in its application to many cases. I wanted to be in the midst of things.

"What other girls can do, I can do," I declared, with a proud confidence in my own ability. "Beulah Tompkins is no smarter than the rest of the girls around here; and she has a splendid position in Chicago."

"Many times a week I recounted with animation, for my parents' benefit, all that Beulah Tompkins had told me about her "splendid position" as a saleswoman in a department store, and of her opportunities, achievements and amusements. "You never liked Beulah," mother would remind me with gentle patience. "And she is the only person you know in Chicago. I should hate to see you leave home on her representation, or to follow in her footsteps."

"Oh! all right, mother would reply. "I know I have never been in— but that may have been just as much my fault as hers. Anyway, I wish I had such good times as she is having. She tells of so many ways there are in Chicago for enjoyment and improvement, that makes me just wild to go, too. I hate to think of spending all my life in the country. It is so deadly dull and uninteresting."

My mother sighed as she looked into my flushed face. I was an only child, and the eager light in my eyes brought back to her mind her own youthful longings for experiences different from those she had known. She realized how hard it is for the young to be contented in quiet, uneventful surroundings. They crave excitement; they want something to happen. She felt how much truth there is in the old proverb: "You cannot put old heads on young shoulders," and knew in her heart how difficult it is for the young heart to appreciate present privileges, opportunities, and blessings.

"You will never see anything more beautiful than this," mother said, with a wave of her hand, indicating

our immediate surroundings, and the far-reaching view before us. We were sitting on the veranda of a pleasant and humble farmhouse. A hedge of lilac bushes in full bloom marked the front boundary of the yard, and the fragrance was borne to us by the breeze which came in gentle gusts. A



One of the Finest White Varieties of Paesony in Cultivation

The illustration herewith is that of Paesony Pastora Maxima, one of the finest white varieties grown. This plant was grown by J. B. Thompson, Westport, Co. Cal., and had 40 buds on it at once. Several of the flowers measured eight inches across.

bed of tulips gave a touch of vivid color to the scene. At our left was the vegetable garden, where green sprouting things gave promise of succulent sables in store, as father wrought with hoe and rake. Stretching away to the horizon was a beautiful level landscape clothed in the vivid emerald of spring, and dotted with trees, houses, and patches of woodland. A miniature mountain in the distance added variety to the scene.

The Permission Given

"I know it is beautiful, mother, and I love it," I acknowledged, quick tears dimming my eyes. "But I am so tired of it all. I want something different. I want to see life."

"What about Philip?" mother suggested inquiringly.

"Philip Marston can attend to his own affairs!" I replied in a passionate outburst. "He has no right to decide my movements. Here is Beulah's letter." I offered it to mother to read. "She had the promise of a place for me in the store where she

is employed. Say I may go, mother. Oh, please say I may go!"

There was a pause, then mother replied very quietly: "Yes, you may go, Ellen. Your father has always left such matters to me; and I judge it the wisest thing for you to have the trial. You are old enough now to assume responsibility for your own life. I hope you may not have reason to regret this step, dear; or rather, I hope you will regret it in the sense that such a regret may drive you back home to us who love you so dearly, and wish only to further your best interests. If our circumstances would permit, I should prefer to have you 'see life' under a brighter aspect. But there is little prospect that we will ever be in a position to do more for you than we are doing now. It has always been hard to make 'both ends meet,' as you know."

I left home shortly after this conversation, and found a place in the basement of the great department store in Chicago where Beulah Tompkins worked. I was seeing "life"—such phases of it as were possible in my position. A year passed, and rose color had faded into drab as reality dispersed the glow imagination had conjured up for my deceiving. Where were the pleasures, the excitements, the opportunities for improvement

convince me before I left home that the \$6 per week I was now receiving was not a sufficient—day, a splendid sum for a girl to live on in the city. Sad experience, however, was an eye-opener to me. I paid \$9 a week for my stuffy half bedroom in a dreary lodging-house, which was not without walking distance from my work. Ten cents a day for car fare amounted to sixty cents a week. At a cafeteria restaurant downtown, where the customers waited upon, a plate of fairly good meat, a vegetable, a glass of milk, or a cup of tea or coffee, and dessert, could be had for about twenty-five cents, including bread and butter. Ten cents for coffee and rolls for breakfast, and the same for supper, was the cheapest I could manage, unless I bought a loaf of bread, and the like, and ate it in my room, as was often the case. This did not include my meals for Sunday. So here was \$5.30 out of my \$6 gone already.

Then, there was the laundry question. Landlady objected to having girls "messing" in their kitchens. I managed to wash out a few articles in my wash bowl, and dried them in my room. I could not iron them, because I must get up at five o'clock, and this was no convenience. I had to have clean underclothing, which nearly emptied my purse.

Over and over I blamed myself for poor management, when the end of each week found me with an empty purse, and needing so many things, until I read in a daily newspaper the statement by one verses in such matters, that a girl could not live "honestly" in Chicago on less than \$8 a week. I had lived honestly on less, but that was not living; it was only existing. Many girls earned even less than me, and what an allurements to wicked ways for one pretty, and fond of clothes and amusement! Many of the girls lived at home, which accounted for their being able to work for as low as \$4, \$4.50 and even \$3 a week. Some of the "Want Ads" in the newspapers, openly stated their preference for those who lived at home.

"Poor me! When my clothes were worn out, I would be face to face with a pretty pertinent question.

Beulah earned \$8 a week. I knew now just what \$8 a week I could do. It would pay for Beulah's more expensive room and food, but it never could pay for the clothes she was wearing. Then, how did she get them? I was frightened. I could not help but think of the "Want Ads" in the newspapers, and Beulah's people—plain, humble but respectable people, imagined that she was doing so well.

Then I was homesick—horribly homesick. Not for the world, how ever, would I acknowledge it. And Beulah had not proved to be the congenial companion I had anticipated. In fact, I liked her no better than I had in the past. I indeed, now that she was at close range with me. Beulah was uppish, and inclined to patronize me from her loftier station in the perfumery department on the main floor. I hesitated in my mind about deciding that Beulah was inclined to be "fast," but I did not approve of her "gentlemen friends." "You've got to have a little more style about you if you expect to go about with me," she said to me, whose wages certainly did not permit of much "style."

(Continued next week)

It is useless to wish for the best things in life, for there are not enough to go around; rather let us try to be content with the good things.

The Upward Look

Subservient to His Will

"Father, if thou be willing, remove this cup from me: nevertheless, not my will, but thine be done."—Luke xiii., 42.

One morning she was in the Spring-nook, where the shade was cool and restful, and the mosses deep and soft. But she was weary and discouraged, her heart aching with sorrow and disappointment, her life a long question: "Why did God allow some to suffer so much?"

She felt hopeless. Whatever efforts she might make, nothing seemed to be of any avail. Oh! if she could only give up and just lie down there in that restful spot and sleep her life away! She knew not where to turn for comfort and help.

Sitting there, she looked into the cool, deep spring at the foot of the moss-covered boulder on which she was sitting. How pure it was! Listlessly, she was so tired, she glanced around the edge till her eye rested on the spot from which the water was trickling out musically. "How dark, dark, the earth was! How long had the water been making its way through that black soil before it came out into the clear depths into which she was now intently gazing. Was this God's way of purifying that water? Was this God's way of purifying her character, that through the

sorrow and the humiliation she might become stronger and better? Had she been like a little one who, shortly before, she had heard saying: "If you do not let me have it, I will cry hard, hard?"

Sobbing, she knelt down and prayed with a full heart, that God would forgive her for all the worrying and fretting, and help her to realize the vision of the noble life she now saw hers might become. He alone knew what discipline she most needed.—T.H.N.

OUR HOME CLUB

Christmas Giving

"Do unto others as they did unto you" has become for many of us the maxim for Christmas giving. My friend gave me a valuable gift, therefore must I procure one of like value for that friend. The result has been sacrifices that have robbed the festive season of much of its joy, and worry that has driven sleep from many pillows. Each year as the circle of acquaintance widens, the burden grows.

As the difficulty has arisen from the perverting of a maxim, so the solution appears to be in restoring it to the original reading: "Do unto others as ye would that they should do unto you." Our friends know, or should know, what we can afford to return, and it is a cruel mis-judgment to think for a moment that they have given

with the purpose of receiving again. Let us accept the tokens of friendship we receive as we would have our friends receive ours. We should feel badly indeed if in sending some pretty remembrance we had caused the recipient to feel under obligation to return a like gift. Do we not then do injustice in harboring that thought?

It would be a pity to suppress the old-time custom of Christmas giving. The Yule-tide should be a season of overflowing love and goodwill. Out of the fulness of our hearts then, let us give as love dictates. But let us not out of the lack of good judgment commit the crime against friendship of giving for the mere reason that we have received. A good cure for burdensome Christmas gift exchange is equal parts of love and common-sense well mingled, remembering always that, "The gift without the giver is bare."—"Aunt Harriet."

"The Givers"

I have just finished reading a beautiful story, "The Givers." A young couple were about to be married. They themselves were poor. Their friends and relatives were well-to-do. The wedding presents were expensive; likewise to a couple in poor circumstances, they were useless. The bride's aunt, as poor in worldly goods as her niece, returns all of the presents and explains why they are not needed. The givers are quick to see the point and they substitute useful gifts for the purely ornamental ones that pre-

ceded them. The result of it all is that the humble home of the young couple is almost furnished and the young fellow is given a start in business. The most beautiful part of the whole story is the love displayed by the aunt who undertook the trying work of returning the gifts to givers whose intentions had been the best, if their judgment was faulty.

The story reminded me of a wedding that I attended this summer. I called around the day before the happy event to see the presents. The bride tried to look enthusiastic about the lovely things that had been given her and she succeeded fairly well. Two presents did not occupy a place in the front room. One was a set of kitchen granite ware and the other a Jersey cow. The young woman told me about them. "Really," said she, "we value them more than all the others put together, although their intrinsic worth is not as great."

This young woman has married a poor man. They will have a hard time to get on their feet. They can never begin to furnish a home to match the expensive wedding presents that they have, and the bride knew it. The very fine cut glass fruit dish, for instance, will look altogether out of place beside the cheap cutlery and dishes that will grace the dining table. Had the givers in this case spent the same amount of money on plain and necessary things, I know that the young couple would have appreciated their tokens of esteem much more.

"Aunt Nell."



"What's flour gluten, Bud?"
"It's what makes your dough rise, Rose."
"Yes"—she encouraged.
Added Bud very sagely:
"Makes it rise in the mixer and expand
"in the oven. It's the elastic part of
"flour—absorbs all the water and milk
"—and things."
 Rose grew interested.
"FIVE ROSES, said Bud, is exceedingly rich
"in gluten. I s'pose because it's all made
"from Manitoba wheat. Takes up a lot
"more water — makes those fat loaves —
"lasts longer too."
"Saves money, doesn't it?" asked Rose.
Bud in a big voice:
"The fat loaf makes the fat pocketbook!"
Use FIVE ROSES always.
And Rose said YES.

Five Roses Flour
 Not Bleached  Not Blended

5% DEBENTURES

INTEREST PAID EVERY SIX MONTHS

Paid Up Capital \$2,000,000
Assets \$5,000,000

We issue 5 per Cent. Debentures for sums of \$500 up to \$5,000 for periods of five years up to ten years, as desired. This is the safest, most convenient and most profitable investment that can be found. Write for full particulars and our Annual Report.

STANDARD RELIANCE MORTGAGE CORPORATION
Head Office. 82-88 King St. E. Toronto

BEAUTIFY YOUR HOME

OUR SPECIALTY: The decoration of small houses at small cost. OUR MOTTO: It is the use of color, not money, that counts.

OUR CHARGE: Nothing for orders over \$25.00.

OUR OBJECT: To please. OUR KNACK: The buying of things that count.

Anything you want to know about sending up your home, ask

SMALL HOUSE DECORATING CO., 1 LIBERTY ST., NEW YORK, N. Y.

100 POST CARDS FREE

SEND US 25c FOR 25 NEW YEAR & CHRISTMAS CARDS. We will send you 100 post cards free. We will also send you a copy of our new book, "How to Decorate Your Home." This book is a real gem. It is full of ideas and suggestions for making your home beautiful. It is a must for every home. Send for it today. It is yours for 25c.

EMERSON CO., Box F BEEBE, QUE.

WRITE AND COLUMBIA WYANDOTTES.

LIGHT BRASS & S.C. WHITE LEOPHORNS Over 30 years a leader. Stock lists. Eggs for sale.

Michael E. Boyer, Box 12, Hammondsport, N.Y.



CHALLENGE COLLARS

Ask your dealer to be the first to wear one of these collars. They are made of the finest quality of material and are guaranteed to last. They are also very comfortable and easy to wear. They are a must for every man. Send for them today. They are yours for 25c.

THE ARMYLITE CO. of Toronto, Ont. 20 FRANKLIN AVENUE, TORONTO, ONT.

All "ARLINGTON COLLARS" are good, but our CHALLENGE BRAND is the best. MADE IN CANADA

FOR SALE AND WANT ADVERTISING

THREE CENTS A WORD, CASH WITH ORDER

FOR SALE—Iron Pipe, Pullers, Belting, Balls, Chains, Wire Fencing, Iron Posts, etc., all sizes, very cheap. Send for list, stating what you want.—The Imperial Waste and Metal Co., Dept. F. D., Queen Street, Montreal.

THE COOK'S CORNER

Conducted by LILLIAN CRUMMY

Good Things for Christmas

As the Christmas season approaches, we housekeepers find ourselves planning a menu to grace the festive board. Fruit cake of course holds a prominent place in the menu, and for those of our readers who are not always successful in making such a cake, we would suggest these seasonal hints:

Fruit cakes are sometimes heavy on account of putting fruit in directly after washing. It is better to put the fruit in a colander in some warm place, before using, also sprinkle with flour ere mixing with our ingredients. Dried fruits added to dough absorb moisture from it and therefore make it stiffer, while with fresh fruits the contrary is the case.

Below are given several recipes for making fruit cake, as well as other reasonable dainties:

Fruit Cake (Without Eggs)

One cup of brown sugar, one-half cup molasses, one cup sour cream, one tablespoonful soda, (put in cream when dissolved), one tablespoon boiling water (to dissolve soda), three and a half cups flour, two cups raisins, one-half lb. currants, citron, one cup of preserves; pinch of salt; spices and almond flavor. This cake should be made about a month ere using. It is a moist cake and can be kept any length of time.

Fruit Cake (Good)

Six eggs, three-quarters pound of butter, one pound (two cups) sugar, one cup molasses, four cups flour, one heaping teaspoon soda in flour, one pound raisins, one pound currants, all kinds of seasoning to taste, also lemon peel and nuts chopped fine. Put greased paper in bottom of pan, also put grate in bottom of oven. Cook in a slow oven for two and one-half or three hours.

Plain Fruit Cake

One-half pound currants, well washed; one-half pound raisins, one cup butter (beaten to a cream), one cup granulated sugar, one cup milk, three cups flour, three eggs beaten separately, three teaspoons baking powder. Paper in dish. Bake one hour.

Black Milk Cake

One cup sugar, butter size of an egg, one egg, one cup sweet milk, two teaspoons cream of tartar (level), one teaspoon soda, one pint flour. Beat sugar and butter together well. Add other ingredients. Four two-thirds of mixture into buttered tin, and to the remainder add two table-spoons molasses, one-half teaspoon ground cloves, one-half teaspoon alspice. Stir together and pour over top of first mixture. Bake in a moderate oven. This is inexpensive, and splendid if used while fresh.

Sugar Cookies (Excellent)

Two cups sugar, three eggs, one cup butter, one-half cup milk, pinch spoons cream of tartar, four to roll. Cream butter and sugar, add eggs, then milk. Add flour to roll out, sifting soda, cream of tartar, and salt into flour.

Christmas Pudding

Two eggs, one and one-half cups currants, one and one-half cups raisins, one and one-half cups suet, one-half cup sugar, one cup molasses, one-half cup of milk, four cups flour, one teaspoon soda, one teaspoon cream of tartar, one teaspoon mixed spices. Boil or steam three hours. Serve with the desired sauce.



ROYAL YEAST

MAKES THE WHIEST LIGHT

ROYAL YEAST CAKES

IS BEST YEAST IN THE WORLD

CHALLET COMPANY LIMITED
TORONTO, ONT.

EGGS, BUTTER LIVE POULTRY

Will your shipments to us by freight. Advise us by postal and we will attend to the rest promptly.

Eggs Cases and Poultry Coops supplied free.

Wm. DAVIES Co. Ltd.

Established 1854 TORONTO, ONT.

CREAM

We say least and pay most. Money talks.

Let our talk to you. Write NOW.

Belleville Creamery Ltd.

References: Molson's Bank, Belleville

FARM DAIRYING

Price only \$1.35 postpaid. Order through Book Dept., FARM AND DAIRY, Peterboro, Ont.

WANTED

We have again advanced our prices for Good Quality Cream. We could use yours. It will be worth your while to write us.

Toronto Creamery Co., Ltd.

TORONTO, ONT.



Powerful White Incandescent Light

Burns common coal oil. No dirt. No smoke. Gives better light than gas or electricity or any ordinary common old lamps. Unsuitable for fine sewing and reading. I want one person in each locality to handle the burner. Write today for circular telling you how you can get one free.

AUG. GACACHE, Manufacturer
SARVERVILLE, N. C.

They use Maxwell's Churns in Denmark—

Fancy! Denmark—the great butter-producing country of the world—send all the way to Canada for Maxwell's Churn! Also used in Australia, New Zealand and S. Africa. Convincing proof, this, of the excellence of these well-known churns. Best of all is this—

Maxwell

"FAVORITE" CHURN (with Bow Lever)

Notes the adjustable handle on the bow lever. No other churn has this. Handle can be moved to center or either side, whichever is most convenient for stirring.

You can buy the "Favorite" in eight sizes. Strongest and best made churn on the market. Easy to work. Gives splendid results. Ask your dealer.

MAXWELL'S LTD. ST. MARY'S, ONTARIO

Western Canada Offers You 150,000 Free Homesteads

On the lines of the **Canadian Northern Railway**

For booklets and information apply to the General Passenger Dept., 60 King St. East, Toronto, or to any Agent of the Company.



Chiclets

REALLY DELIGHTFUL

THE DAINTY MINT-COVERED CANDY-COATED CHEWING GUM

CRUMB'S IMPROVED WARRIERS STANCHION

Henry H. Albertson, Burlington, N. J., writes: "New Stanchions add greatly to the comfort of my cows."

WHY TORTURE yours with rigid stanchions? Send for specifications of best construction yet made—your cow stable to you.

WALLACE B. CRUMB, Farm Machinery Co., E.A.S., Canada, writes: "I have used your Stanchions for many years. All construction should be designed to be built solid. Made in inquiry if you prefer booklet in French or English."

PEERLESS PERFECTION

The Standard of Excellence. Every cow herdsman who will improve his herd will find in this machine the most perfect and most sure money making investment. It is the only one that will stand up to the most severe use. Write for a booklet through to the Farm Machinery Co., 1100 Broadway, New York City, N.Y.

BIGGER PROFIT FROM HOGS

Better health, more weight and better prices when fed on "MAPLE LEAF" Oil Cake Meal.

Write today for free sample and full particulars. The CANADIAN LINSEED OIL MILLS LTD., Toronto and Montreal.

Well DRILLING MACHINES

Over 70 sizes and styles for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on stile. With engine or horse power. Strong, simple and durable. Any mechanic can operate them easily. Send for catalogue.

WILLIAMS BROS., ITHACA, N. Y.

New Edition of Modern Silage Methods

ENTIRELY a new book—new chapters, new facts—new silage making methods. Write today for free sample and full particulars. The CANADIAN LINSEED OIL MILLS LTD., Toronto and Montreal.

Learn to Stuff Birds

Do you ever hunt or fish? Do you want to write about your own birds? Do you want to know how to stuff birds? This book, very practical and readable, shows how to do it. Write today for free sample and full particulars. The CANADIAN LINSEED OIL MILLS LTD., Toronto and Montreal.

CREAM WISDOM

The old statement that "no juggling of figures in January will retrieve the losses of June" may be applied to cream shipping. Our prices have been just a little higher than the rest throughout the past summer. Discerning shippers patronize us.

Valley Creamery of Ottawa, Ltd.
219 Sparks St., OTTAWA, Ont.

Ship your FURS FREE

Our Trappers Guide Supply Catalog and Price List.

Write today, address TO JOHN HALLAM LIMITED DENK B37 TORONTO

You Can't Cut Out A BOG SEAFIN, PUFF or THOROUGHPIN, but

ABSORBINE

will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. \$2.00 per bottle, delivered. Will tell you more if you write. Book 4 K free. ABSORBINE, JR., the antiseptic liniment for manking, reduces Varicose Veins, Ruptured Hemorrhoids or Eczema, Itching Glans, Colic, Wens, Cysts. Allevy pain quickly. Price \$1.00 and \$2.00 a bottle at drug stores or delivered by mail. Development only by J. J. FORT, P.O. 5, 113 Lyman St., Montreal, Can.

The Dairy Meeting at Guelph
(Continued from page 9.)

summarized by Mr. Brown, of the Dairy School. He found that the use of a red reader to eliminate the meniscus reduced the reading one-half per cent. As the results were not certified by chemical analysis it was agreed that the value of the red reader is yet in doubt. In handling composite samples it was found that least mold developed when sufficient preservative was added at first and the bottle not shaken on each addition, care being taken that cream does not get on the sides of the composite bottle.

Daily Versus Composite Sampling

The old question of daily versus composite samples was again to the fore. Several were ready to express their belief in the superiority of the daily test but found that the variations from day to day due to poor separators, poorly regulated speed and other causes of suspicion to patrons. In this regard the first year is probably the worst. Chief Instructor Hearn suggested a special plan on cream separators to eliminate the variation due to ill-regulated speed. (Manufacturers please take notice).

Another phase of the testing problem that is often a cause of irritation is the testing of cream samples sent by patrons to Guelph. Mr. Waddell mentioned one case where his test was 31, the patron's 33 and the college test 39. Prof. Dean pointed out that his department could not refuse to test these samples even though they might not have been correctly taken. Finally it was agreed that a letter be drafted to accompany every test explaining why variations occur and why the college test might disagree with the creamery test.

Proportional Sampling

Mr. Barr threw additional light on tabling proportional samples by describing the Marker system in use in Alberta. The drawer takes a sample of each patron's cream. At a certain scale is placed behind the composite bottle. On this scale are gradations for various weights of cream. It is a simple matter of pouring in an amount proportionate to the delivery of the patron for that day. Needless to say, the composite bottles are all of uniform size.

For pasteurizing temperatures Prof. Dean recommended 171 for the flash method and 140 for the holder method. Cream cooling experiments during the past year indicate that with pasteurized cream, brine through one cooler used too much ice but that water in a first cooler and brine in a second worked very well.

Farm and Dairy can give but this brief summary this week of this important meeting. Extracts from the various discussions will be given from time to time in future issues. It was generally agreed that this year's meeting will be provocative of good in bringing nearer to solution the questions of cream grading, instruction of patrons and the friction due to college cream tests.

Winter Feeding of Sheep
(Continued from page 5)

send a few of them from time to time to the butcher. When doing this the grain ration is increased so the market lambs being kept by themselves, and being given a mixed ration of corn and oats, with the emphasis on the corn. For lambs corn is the finest feeding grain that we have ever used.

One point we would make for the fall of the year. Pastures are short, and unless a little supplementary feeding is done, both lambs and ewes will lose in condition. Don't be deceived by the growth of the fleece. Handle the ewes carefully, and you will find that the growing fleece may cover a serious loss in flesh.

Fairbanks-Morse Farm Engine

MADE IN CANADA

Seven every power purpose on the average farm. Easy to operate, simply and durably made, reliable at all times and will run on cheap fuels. Of the 160-00 Fairbanks-Morse Engines

built during the past 25 years, 95% are still in active service. The best possible evidence of their dependability.

Many thousands of power. Vertical and horizontal—portable and stationary—1 to 500 h.p.

Send for free booklet, "Farm Power."

The Canadian Fairbanks-Morse Co., Limited

Montreal Toronto
St. John Hamilton
St. William

Windsor
Winnipeg
Calgary
Vancouver
Victoria

Canada's Departmental House for Mechanical Goods

Ottawa Winter Fair
OTTAWA
JANUARY 19, 20, 21 and 22, 1915

EASTERN ONTARIO'S GREAT WINTER FAIR
Most Modern and Completely Equipped Winter Fair Building in the Dominion

\$12,000.00 Offered in Prizes

Entries Close January 6th, 1915

JOHN BRIGHT, President OTTAWA, ONT.
W. D. JACKSON, Secretary OTTAWA, ONT.

Two halters for the price of one

You haven't a horse that can break this Giant Halter: You can't get the same strength or as light a hold anywhere under \$2.00.

Griffith's Giant Halters

Don't let a strong young 'st pull out of halter or break one. It's likely to teach him a bad habit. Griffith's Giant Halter will hold him—the harder he pulls the tighter it holds. Strong, well-sewn double harness leather, or Russett boiling leather, and 1/2 inch hard rope without a weak spot or a wearing point. You can save a dollar and get a better halter by asking for Griffith's Giant. Sold in stores everywhere, or sent, charges paid, for \$1.00 (including shank)—\$1.25 west of Port Williams. Write TO-DAY.

A Big List of Griffith's Money Savers

Halters and harness specialties keep our big plant busy. We make them cheaper because we make tremendous quantities. Get a full list of bargains. Ask for "Hold Your Horses"—a free book. Send for a Griffith's Handy Rope Tie if your dealer hasn't got it—a new idea. West of Port Williams, cheaper than you could make it.

Dealers Everywhere: J. L. Griffith's Goods
G. L. GRIFFITH & SON, Stratford, Ont. Dept. K.

PRICE INCLUDES SHANK

This tag on the genuine. Look for it.

HET LOO FARMS VAUDREUIL, QUE.

HOLSTEINS

Let us quote you prices on **Heifer Calves** from 1 to 8 months old, also high bred good individual **Bull Calves**. Dams with records from 18 lbs. to 75 lbs. in 7 days. We are short of rooms and will price them low if taken soon.

DR. J. de S. MARWEGEN, Prop.

A New Seed Association

Western Ontario is to have a seed association. The new association is to conduct in no way with the work of the Canadian Seed Growers' Association. Its object will be to further the sale of good seed, though not necessarily pedigreed seed. The formation of such an association was first suggested by W. J. Lennox at the meeting during the course of the Guelph Winter Fair. The suggestion met with approval and officers were elected as follows:

Results That Count

Mr. Joseph O'Reilly, of Ennismore, has just made another good sale through **Farm and Dairy** from his richly bred herd. This time it is a son of **Calumny Johnson** Reg. 25,772 in seven days. The young fellow has the blood and style of a producer. Recently Mr. O'Reilly to the herd of the Pontiacs, formerly at the residence of S. Gooderman, his herd of Guelph Winter Fair. He has also made enquiries for one sire advertised in **Farm and Dairy**. If you as a breeder have surplus stock for sale, let us help you in finding buyers.

ADVERTISING DEPARTMENT.
FARM AND DAIRY.

FORSTERCREST HOLSTEINS

Young Bulls and Heifers, richly bred, of the blood of Letha Keyes. May be also other Canadian and world champions. Tested dams in blood of Merit or Record of Performance. A grandson of Letha Keyes should make a good herd sire. Prices low for quick sale. Write to make room.

R. B. BROCK

E. R. S. SIMCOE - JARVIS STATION



Purebred Registered HOLSTEIN CATTLE

In a bulletin published by the Minnesota Experiment Station, Professor Thomas F. Cooper states that a cow that produces only four pounds of milk per year will cause her owner a loss of \$100.00 in the next year.

His figures are: a 2,000-pound cow is worth \$25; a 3,000-pound cow is worth \$67; an 8,000-pound cow is worth \$150; and a 10,000-pound cow is worth \$225.

Find out what your cows are worth. Find out what purebred registered Holsteins are doing.

Sent for FREE Illustrated Descriptive Booklets
The Holstein-Friesian Association of America
Box 123, Burlington, Vt.

BULLS FIT FOR SERVICE

One sired by King Pontiac Erie Canada, owned by Prince Fenoville Platte, the greatest Canadian sire, 7 of his daughters as Junior 3-year-olds have records of over 21 lbs. butter each in 7 days. We are also offering 3 Young B.E. Ows, due in Oct.

BROWN BROS. LYN, ONT.

FOR SALE

One Young Bull a grandson of Evergreen March, 3,100 lbs. milk in one year, and whose grand-dam is a 19,000-lb. cow. Also Bull Calf from same dam. Prices reasonable. For particulars, apply to

N. W. SAUER, ST. GEORGE, ONT.

WANTED

A complete set of Canadian Holstein-Friesian Herd Books. If you have a set for sale, write us, stating price.

LIVERPOOL SALE & PEDIGREE CO., INC.
LIVERPOOL, N.Y.

Lakeview Holsteins

Senior herd bull, **COURT HENRIE-VILLE PATHE DE KOL**, a son of **PETERBURY HENRIE-VILLE DE KOL** and **GRACE PATHE WND.**

Junior bull, **DUTCHLAND COLLA-THA RIE MONA**, a son of **COLANTHIA JOHANNA LAD** and **MONA PAULINE DE KOL.**

Write for further information to

E. F. OSLER - BRONTE, Ont.

AVONDALE FARM OFFERS

A Grand Young Bull, best individual, from pride of Orchard Hill, 8 1/2 lbs. above cow, sired by King Pontiac Erie Canada; also Yearling sired by the great King Walker, 14 months old, dam first prize winner Western Fair.

Also several other, six to twelve months, at lower prices. We want to clear these for new crops of calves and are offering at special prices.

A. S. HARRY, AVONDALE FARM, LINDCOLLE, ONT.

SWEETSTAKES AGAIN - Ont.

Poach (9521) at the recent Guelph Winter Fair produced 263.6 lbs. - the highest score ever attained at the Guelph Dairy Test. Breeding cows - my sweetstakes 3-year-old (Netherlands Beauty Poach) of 1913 is by the same sire. Sir Schilling Poach (is also the dam of Netherlands Beauty Poach's favorite, the sensational 3-year-old winner of last year. Young males and females of same breeding always for sale.

ELMCREST HOLSTEINS

Would you like a bull to head your herd from Canada's Finest Jersey Korahs (at 18 months of age) sold for Twenty-Five 1/2 lbs. and at the last of her fifth month she is still giving over 70 lbs. per day. Price, \$350.00. Many others equally good by the same sire. Price, \$150.00 to \$300.00, also some sired by Sir Admiral Ormsby and all out of B.O.P. dams.

Write me your wants.

W. A. McELROY - CHESTERTVILLE, ONT.

W. H. CHERRY, R. R. 5, HAGERVILLE, ONT.

HILLSIDE FARM HOLSTEINS

Hundred (2,000), also out of a dam that gave 8,677 lbs. milk in 3 months and Price, \$300.00. Many others equally good by the same sire. Price, \$150.00 to \$300.00, also some sired by Sir Admiral Ormsby and all out of B.O.P. dams.

Write me your wants.

W. A. McELROY - CHESTERTVILLE, ONT.

SUNNYDALE HERD SIRE---PLUS BURKE, 9191

Western Ontario is to have a seed association. The new association is to conduct in no way with the work of the Canadian Seed Growers' Association. Its object will be to further the sale of good seed, though not necessarily pedigreed seed. The formation of such an association was first suggested by W. J. Lennox at the meeting during the course of the Guelph Winter Fair. The suggestion met with approval and officers were elected as follows:

Hon. Pres., W. G. H. Clark; Hon. Vice-Pres., J. C. A. Zavit; Pres., A. McKenne, Amherstburg; Vice-Pres., Fred Foyston, Minesing; Sec.-Treas., R. E. Wade; Directors: Potatoes, R. E. Mortimer, Honeywood; field roots, Hear, Stokes, Berlin; vegetable, A. McMeans, Wheatley, Grasses, W. J. Squirell, O. A. C.; wheat, Will Barry, Galt; oats, Fred Foyston; barley, John Elder, Hensall; rye and buckwheat, P. Angle, Simcoe; beans, D. A. Wilson, Morpeth; corn, A. McKenne; peas, George Hawes, Spry; and clovers, M. C. Senn, Caledonia.

Marketing Fruit from the Mid-dleman's Standpoint

(Continued from page 8.)

quantities—and he doesn't forget to tell us about it. We are frequently reminded by those who have just come in from the country how cheap apples are. Sometimes they tell us they can almost get them for carrying them away. They forget that we have high rents to pay, and wages, and everything else connected with the stocking, displaying and selling of apples, and they think they should get them from us as cheaply as they can occasionally obtain them in the country. It is up to the producer, if he wants to get good prices for what he grows, to help maintain prices and not to demoralize them for the retailer from whom he expects so much in the way of getting the goods into consumption.

Those of you who read some of our daily papers have seen the abuse we receive from Householders' Leagues' about charging exorbitant prices. I assure you that competition is too keen in grocery staples for that. These

people do not understand the methods or cost of doing business, and in their ignorance create all kinds of unjust prejudice against us. The secret of the success of the grocer is one of the large factors in price advances.

I'm sure that you will agree with me that the retailer is a necessity in the distribution of fruit for sale, especially if the maximum is to be sold in a season. I believe in such conferences as these, and I hope that there will be more of them. They afford us an opportunity for the best understanding of the difficulties with which each of us have to contend.

[Note.—On the conclusion of Mr. Clark's address the fruit growers present were afforded an opportunity to ask him questions. The growers present appeared to be satisfied that Mr. Clark had made out a good case for the retailer.—Editor.]

The Dairy Test at Amherst

The dairy test is one of the main features of the Maritime Winter Fair held at Amherst each year. This year's test showed a greater development than that of the previous year. The fair Altogether there were 69 cows under test, making it the largest public milking competition ever held in Canada.

Another new record was made in production. Miss L. Howda, a cow owned by Sanu'l Dickie & Sons, Central Onslow, N. S., made in the 72 hours of the test 273.8 lbs. of milk, 10.8 lbs. of fat—23.84 lbs. solids not fat, and a total score of 323.77 points, figuring 25 points for each pound of fat, three points for each pound of solids not fat, and one point for each 10 days in milk after the 30 days. This is probably the Canadian record for such a test.

In all other classes the scores were much higher than formerly and the 69 cows on exhibition were probably as fine a lot as were ever brought together in Canada. The principal prize winners in the Holstein Sections were Samuel Dickie & Sons, Onslow; Logan Bros., Wm. Kiellor and Fowler Bros., Amherst Point; Lee & Clark, Charlottetown; R. Hicks, Newton Brooks, and Harding Bros., Welsford, N. B. In Avyrshires, McRae & Sons, Sussex, N.B., and A. Truro Bros., Charlottetown, P.E.I., were again to the front, with Reson Bros., Truro, following close. H. S. Pipes & Sons were foremost in Jerseys, with Baker Bros., and one or two others following. The Guernsey money was about equally divided between H. A. Dickson, Onslow, and D. J. McKay & Sons, Scotsburn.

IS For Sale

He is for sale, of no fault, having been in our herd 4 yrs. We now have a large number of his daughters and many cows bred to him. He was born June 3rd, 1906, and weighs a ton, is quick, sure and active, has 4 B.O.M. daughters: Black Plus Burkyie, 13 lbs. at 3 yrs. 3 mos.; Lillian Heng. Burka, 17 lbs. at 2 yrs.; Helena Burka, 17 lbs. at 2 yrs.; Helma Heng Plus, 18 lbs. at 3 yrs. These records were made under very ordinary conditions. Write for pedigree and price or come and see him and his daughters.

Said the rooster to the duck, "Are you a native around here?" "Oh, no," replied the duck, "I belong to the farming population."

A. D. FOSTER & SONS - BLOOMFIELD, ONT.

HOTEL CARLS-RITE Opposite the Union Station **TORONTO**

"The House of Comfort" This Hotel is the Headquarters for the Dairy Farmers, Horse Breeders and Stockmen from all over Canada.

European Plan - \$3.00 per day
American Plan - \$1.00 per day

... presents a nation of...
... to the limit...
... some...
... mechanic...
... for bus...
... clean re...
... patronage...
... better bod...
... than...
... at the an...
... farmer w...
... House th...
... in country...
... run this...
... quickly d...
... Economy...
... far...
... many fa...
... strict...
... tions will...
... now is f...
... this...
... on...
... Quotatio...
... pres are...
... seen dete...
... Northern...
... when...
... Here the...
... fig. Ont...
... on large...
... fairly at...
... Ont. G...
... start...
... to \$175...
... - Thom...
... note bu...
... Ont. N...
... loon, wh...
... variety...
... peas, \$2...
... The cou...
... the...
... governme...
... the...
... cannot b...
... mand...
... not differ...
... will the...
... the...
... \$16 to \$...
... \$10 to \$...
... Montreal...
... to \$20...
... The cou...
... pl...
... the...
... were...
... paid...
... to be...
... here...
... Ont...
... at Mont...
... - Thom...
... \$150; ha...
... real qu...
... \$24.48...
... The c...
... Britain...
... a ser...
... the...
... ers wh...
... have...
... locally...
... select...
... at Mon...
... to \$60...
... Positiv...
... the...
... ducks...
... to 160...
... 150...
... gene...
... price...
... The b...
... tions h...
... past...
... 200...
... Montre...
... 100...
... market...
... 110...
... to...
... The...
... well...
... than...
... for ex...
... Count...
... New Y...
... The...
... por...
... together...
... the...
... pack...
... were...
... of pro...
... enough...
... quoted

WIRE FENCE PRICES

To be Advanced Jan. 5th, 1915

DIRECT FROM FACTORY TO FARM PREPAID

Made in Canada



The SARNIA FENCE CO.

SARNIA - ONT. LIMITED



Buy Sarnia Fence NOW before the Prices advance. Owing to the raise in the price of wire all styles weighing 11 lbs. or over advance 2c per rod, and all lighter fences 1c per rod. MAIL US YOUR ORDER TO-DAY.

Sarnia fence is sold direct from factory to farmer, cutting out all agents' commissions, dealers' profits and giving you your fence at first cost.

Sarnia fence is made in what is conceded by the best industrial experts, to be the best equipped and the most economical fence factory in America.

The enormous amount of material that passes daily through our factory has resulted in a most economical system of handling. We can handle our present large tonnage to a better advantage to-day, than we could our small tonnage three years ago.

Combining these features. Our Direct Selling Policy—Our low cost of Manufacturing—Our abso-

lute guarantee—and the fact that we are not connected in any way with a combine for the elimination of competition, we believe you will give us credit for being in a position to sell you the best fence it is possible to make at the lowest cost.

Sarnia fence is the best known fence in the Dominion of Canada to-day, which is due largely to the fact that our fence has lived up to every claim we have made for it. From the first we have used a most rigid system of inspection, that insures our customers of getting the most perfect fence possible.

We buy our wire on the open market of the world, and our business is of such a tremendous volume that we are in a position to demand the best. Our wire is

galvanized to the highest possible standard, and is all full government gauge No. 9 wire.

Our policy is to sell the farmers of Canada, the best fence it is possible to make at the lowest possible cost, and our fence for the season of 1914 (our customers will vouch for us) is the best Dollar for Dollar value that has ever been offered in the history of the fence business, in the Dominion of Canada.

For the coming season we are making a feature of service, and have added to our equipment so that now we have a daily capacity of 150 miles of finished fence every ten hours. We are going to carry an extra large stock throughout the entire season and this with our increased capacity will enable us to ship all orders the day they are received.

Stop for one minute and think what price you were compelled to pay for fence before the Sarnia Fence Company came into the field and in recalling old prices, think where they would go if our competitors could get rid of us. For the past four years, we, with the support of the farmers, have managed to keep the price of fence down, and with your further assistance we will continue to do so. We want your order whether for one bale or a carload.

Without the enthusiastic support the farmers gave us three years ago the Government, in all probability would have put the fence sizes of wire on the dutiable list, and placed a bounty on all steel produced in Canada. Either one of these would mean the return of the old prices of five years ago.

WE SET THE PRICE. OTHERS DEVOTE THEIR ENERGY TO TRY TO MEET OUR PRICES.	PRICE Less than Carload in Old Ontario	PRICE Low than Carload in New Ont. Que., Mar. Provinces
5-40-0 HORSE AND CATTLE FENCE. Has 5 line wires, 40 in. high, 5 stays to the rod, all No. 9 Hard Steel wire, spacing 10, 10, 10, 10. Weight per rod 9½ lbs. Price per rod freight prepaid.....	18c	20c
6-40-0 HORSE AND CATTLE FENCE. Has 6 line wires, 40 in. high, 9 stays to the rod, all No. 9 Hard Steel wire, spacing 7, 7, 8, 5, 9. Weight per rod 7½ lbs. Price per rod freight prepaid.....	21c	24c
7-40-0 HORSE, CATTLE AND SHEEP FENCE. Has 7 line wires, 40 in. high, 9 stays to the rod, all No. 9 Hard Steel wire, spacing 8, 6, 7, 7, 6. Weight per rod 8½ lbs. Price per rod freight prepaid.....	23c	26c
7-48-0 HORSE AND CATTLE FENCE. Has 7 line wires, 48 in. high, 9 stays to the rod, all No. 9 Hard Steel wire, spacing 8, 6, 7, 9, 10, 11. Weight per rod, 9 lbs. Price per rod freight prepaid.....	23c	26c
8-40 GENERAL STOCK FENCE. Has 8 line wires, 40 in. high, 11 stays to the rod, all No. 9 Hard Steel wire, spacing 3, 4, 6, 7, 7, 8. Weight per rod 10½ lbs. Price per rod freight prepaid.....	28c	31c
8-48 GENERAL STOCK FENCE. Has 8 line wires, 48 in. high, 11 stays to the rod, all No. 9 Hard Steel wire, spacing 4, 6, 7, 8, 7, 8. Weight per rod 11 lbs. Price per rod freight prepaid.....	29c	32c
9-48-0 GENERAL STOCK FENCE. Has 9 line wires, 48 in. high, 9 stays to the rod, all No. 9 Hard Steel wire, spacing 3, 4, 5, 6, 6, 6, 8. Weight per rod 11 lbs. Price per rod freight prepaid.....	29c	32c
9-48-0-S SPECIAL HORSE AND CATTLE FENCE. Has 9 line wires, 48 in. high, 9 stays to the rod, all No. 9 Hard Steel wire, spacing 6, 6, 6, 6, 6, 6, 6. Weight per rod 11 lbs. Per rod 6, 6, 6, 6, 6. Weight per rod 11 lbs. Per rod	29c	32c

GUARANTEE

We guarantee our fence to be made from the best galvanized hard steel wire, both stay line wire and knot and to be as perfectly woven as any Fence on the Market.

We also make special fence according to your specifications any height up to 8 feet.

Please Note—Quotations to other points in Canada, Newfoundland and United States on request. Eastern Canada customers please note:

Carload prices on shipments of 24,000 lbs. or over. We pay freight on all Railroads with the exception of Electric lines and steamship lines.

Should you wish to take advantage of these prices and to wish your fence to go forward we will willingly store your fence in our warehouse until such time as you may require it. Remit direct to Sarnia Fence Company, Ltd., by P.O. Order, Money Order or Bank Draft to-day.

CASH WITH THE ORDER SAVES EXPENSE AND YOU GET THE BENEFIT OF THE SAVING IN THE PRICE.

PRICE Less than Carload in Old Ontario	PRICE Low than Carload in New Ont. Que., Mar. Provinces
9-48 GENERAL STOCK FENCE. Has 9 line wires, 48 in. high, 11 stays to the rod, all No. 9 Hard Steel wire, spacing 3, 4, 6, 6, 6, 6, 8. Weight per rod 12 lbs. Price per rod freight prepaid.....	31c 35c
10-50 HORSE, CATTLE, SHEEP AND HOG FENCE. Has 10 line wires, 50 in. high, 12 stays to the rod, all No. 9 Hard Steel wire, spacing 3, 3½, 3½, 4½, 5½. Weight per rod 12½ lbs. Price per rod freight prepaid.....	33c 37c
11-52 HORSE, CATTLE, SHEEP AND HOG FENCE. Has 11 line wires, 52 in. high, 13 stays to the rod, all No. 9 Hard Steel wire, spacing 3, 3½, 4½, 5, 6, 6, 7. Weight per rod 14½ lbs. Price per rod freight prepaid.....	37c 40c
9-52-0 HORSE, CATTLE, SHEEP AND HOG FENCE. Has 9 line wires, 52 in. high, 9 stays to the rod, all No. 9 Hard Steel wire, spacing 4, 4, 6½, 7, 8½, 7, 8. Weight per rod 11½ lbs. Price per rod.....	30c 32c
15-50-P STOCK AND POULTRY FENCE. Has 15 line wires, 50 in. high, 54 stays to the rod, top and bottom, No. 9 Biling 15 Hard Steel wire, spacing 1½, 1½, 1½, 1½, 2, 2, 2½, 2, 4, 4, 6, 6, 5, 7. Weight 13 lbs. Price per rod freight paid.....	37c 40c
WALK GATE, 3½ x 4, Freight paid.....	\$2.50 \$2.75
FARM GATE, 12 x 8, Freight paid.....	3.75 4.00
FARM GATE, 12 x 6, Freight paid.....	4.00 4.25
FARM GATE, 12 x 8, Freight paid.....	4.25 4.50
FARM GATE, 12 x 6, Freight paid.....	4.75 5.00
STAPLES, GALVANIZED, 1½ in. Per box of 25 lbs freight paid.....	.75 .80
STRANCH WIRE, No. 9 60ft. Per coil 25 lbs. freight paid.....	.75 .80
STRETCHER, All iron, top and bottom, draw very heavy tested chain, extra single wire stretcher and splicing, the best stretchers made at any price. Freight paid.....	7.50 8.00

NOTE—All Fence put up in 20, 30 and 40 rod rolls Barb Wire Prices on application.