Board of Works

THE Maritime Farmer.

AGRICULTURE THE TRUE BASIS OF A NATION'S WEALTH

LORAN C. MACNUTT, Editor and Proprietor. FREDERICTON, N. B., WEDNESDAY, JANUARY 16, 1889. VOL. X., NO 20

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It is the good things and the new things you want. Here is a Catalogue full of them! Do you want tested seed, raised from stock selected with extra care, grown from the best strains, got from the originators? I aim to have mine just such. Do you want new varieties that are really good, and not merely novelties? I aim to have mine such. Do you want seed that the dealer himself has faith enough in to warrant? I warrant mine, as see Catalogue. Do you want an exceptionally large collection to select from? Mine is such. Do you want them directly from the grower? I grow a large portion of mine—few seedsmen grow any! My Vegetable and Flower Seed Catalogue for 1889 FREE to everybody. JAMES J. H. GREGORY, Marblehead, Mass.

NOTICE.

NEW GOODS.

JAMES R. HOWIE,

Practical Tailor.

I BEG to inform my numerous patrons, that I have just opened out a very large and well selected stock of NEW SPRING CLOTHS, consisting of English, Scotch and Canadian Tweed Suitings. Fine Corkscrew and Diagonal Suitings, Light and Dark Spring Overcoatings, and all the latest designs and patterns in Fancy Trouserings from which I am prepared to make up in FIRST CLASS STYLE, according to the latest New York Spring and Summer Fashions, and guarantee to give entire satisfaction.

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My stock of Mens' Furnishing Goods cannot be excelled. It consists of Hard and Soft Hats of English and American make, in all the novelties and Staple Styles for Spring Wear. White and Regatta Shirts, Linen Collars, Silk Handkerchiefs, Braces, Merino Underwear, Hosiery and well selected assortment of Fancy Ties and Scarfs, in all the latest patterns of English and American designs

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DRUG STORE.

THE SUBSCRIBER returning thanks for the liberal patronage of the past, and soliciting a continuance of the same, takes this opportunity of informing the public that he is in a better position than ever before to supply them every need. His stock comprises all the leading

PATENT MEDICINES,

PURE DRUGS,

Fancy Goods, Fancy Articles,

HAVANA CIGARS,

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and everything to be found in a first-class drug-store. The Dispensing of Physicians Prescriptions receives my personal attention, and nothing but Pure Drugs used in compounding.

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Child's Suits from	$1.40	to	$3.00
Boys " "	2.00	"	4.00
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Who advised her pupils to strengthen their minds by the use of Ayer's Sarsaparilla, appreciated the truth that bodily health is essential to mental vigor. For persons of delicate and feeble constitution, whether young or old, this medicine is remarkably beneficial. Be sure you get **Ayer's Sarsaparilla.**

"Every spring and fall I take a number of bottles of Ayer's Sarsaparilla, and am greatly benefited."—Mrs. James H. Eastman, Stoneham, Mass.

"I have taken Ayer's Sarsaparilla with great benefit to my general health."—Miss Thirza L. Crerar, Palmyra, Md.

"My daughter, twelve years of age, has suffered for the past year from

General Debility.

A few weeks since, we began to give her Ayer's Sarsaparilla. Her health has greatly improved."—Mrs. Harriet H. Battles, South Chelmsford, Mass.

"About a year ago I began using Ayer's Sarsaparilla as a remedy for debility and neuralgia resulting from malarial exposure in the army. I was in a very bad condition, but six bottles of the Sarsaparilla, with occasional doses of Ayer's Pills, have greatly improved my health. I am now able to work, and feel that I cannot say too much for your excellent remedies."—F. A. Pinkham, South Moluncus, Me.

"My daughter, sixteen years old, is using Ayer's Sarsaparilla with good effect."—Rev. S. J. Graham, United Brethren Church, Buckhannon, W. Va.

"I suffered from

Nervous Prostration,

with lame back and headache, and have been much benefited by the use of Ayer's Sarsaparilla. I am now 80 years of age, and am satisfied that my present health and prolonged life are due to the use of Ayer's Sarsaparilla."—Lucy Moffitt, Killingly, Conn.

Mrs. Ann H. Farnsworth, a lady 79 years old, So. Woodstock, Vt., writes: "After several weeks' suffering from nervous prostration, I procured a bottle of Ayer's Sarsaparilla, and before I had taken half of it my usual health returned."

Ayer's Sarsaparilla,

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.

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I CURE FITS!

When I say CURE I do not mean merely to stop them for a time, and then have them return again. I MEAN A RADICAL CURE. I have made the disease of

FITS, EPILEPSY or FALLING SICKNESS,

A life long study. I WARRANT my remedy to CURE the worst cases. Because others have failed is no reason for not now receiving a cure. Send at once for a treatise and a FREE BOTTLE of my INFALLIBLE REMEDY. Give Express and Post Office. It costs you nothing for a trial, and it will cure you. Address Dr. H. G. ROOT, 37 Yonge St., Toronto, Ont.

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A Private Treatise and Adviser in five languages; 24 illustrations. To young men only, and those contemplating marriage should not fail to send for it.

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Earliest Cauliflower in existence.

D. M. FERRY & CO., Windsor, Ont.

Miscellaneous

THE MITTEN.

In the sleigh there was only just room for us two,
There was nobody else to forbid it—
The music of sleigh bells beat time to my heart—
And some way or other I did it.

There was love in the air that we breathed; the white snow
Was tinged with the sun's golden glory,
Well—I spoke—and she gave me the mitten point blank!
That's the long and the short of the story.
The wild rush of happiness you do not know,
You can't know unless you have tried it,
What's that? Why she gave me the mitten that's true—
But her dear little hand was inside it!

No one has ever yet been able to explain why a kiss is such a pleasant thing, but the subject is being constantly investigated.

The great popularity of Ayer's Pills as a cathartic is due no less to their promptness and efficacy than to their coating of sugar and freedom from any injurious effects. Children take them readily. See Ayer's Almanac for this year, just out.

It is stated that the United States Government has paid more money in the investigation of the disease of hogs than it has for all the diseases affecting the human race.

Ahead of All.

I have used Hagyard's Pectoral Balsam in my family for years and have found it ahead of any preparation of the kind in curing colds etc. I can especially recommend it for children. ALEX. MOFFAT, Millbrook, Ont.

Family doctor—"Your wife needs outdoor exercise more than anything else." Husband—"But she won't go out. What am I to do?" "Give her plenty of money to shop with."

John Hays, Credit P. O., says:—"His shoulder was so lame for nine months that he could not raise his hand to his head, but by the use of *Dr. Thomas' Eclectric Oil* the pain and lameness disappeared, and although three months has elapsed, he has not had an attack of it since."

A new Persian industry is the manufacture of hoar frost glass, which is covered with feathery patterns resembling those naturally produced upon window panes in cold weather.

Mr. H. McCaw, Custom House, Toronto, writes: "My wife was troubled with Dyspepsia and Rheumatism for a long time; she tried many different medicines, but did not get any relief until she used Northrop & Lyman's Vegetable Discovery and Dyspeptic Cure. She has taken two bottles of it, and now finds herself in better health than she has been for years."

According to a New York paper a tremendous amount of German capital is about to be thrown into the United States, to be employed in introducing everywhere the incandescent electric light.

On the verge of Starvation.

"For three months I could not eat a full meal or do a day's work. I bought a bottle of Burdock Blood Bitters, begun using it, and in three days my appetite returned, in a week I felt like a new man. It was wonderful what one bottle did for me," writes Arthur Allchin, of Huntsville, Muskoko, who suffered from Dyspepsia.

The style of hair-dressing for ladies for 1889 is said to be a narrow fringe on the forehead, with a narrow continuation of coils running from the top of the head low down on the neck. The hair will not be so much hidden by the hat as it used to be.

PEOPLE WHO RESIDE OR SOJOURN in regions of country where fever and ague and bilious remittent fever are prevalent, should be particularly careful to regulate digestion, the liver and the bowels, before the approach of the season for the periodic malady. The timely use of Northrop & Lyman's Vegetable Discovery and Dyspeptic Cure is a valuable safeguard against the malarial scourge. It is acknowledged to be the best blood purifier in the market.

Spurgeon Perry, once a popular Congregational minister of New Jersey, and who made a fortune of nearly $1,000,000 out of patent medicines, only to lose it in speculation, was last week sent to the almshouse at Flatbush as a pauper. He has been living some time in Brooklyn. He is 89 years old.

To dream of a ponderous whale,
Erect on the tip of his tail,
Is the sign of a storm
(If the weather is warm,)
Unless it should happen to fail.

Dreams don't amount to much, anyhow, Some signs, however, are infallible. If you are constipated, with no appetite, tortured with sick headache and bilious symptoms, these signs indicate that you need Dr. Pierce's Pleasant Purgative Pellets. They will cure you. All druggists.

A gunner in the British army in one of the recent fights in Egypt was serving his piece, when it was surrounded so closely by Arabs that he had to use his rammer as a club, and he broke it. He was selected for the Victoria cross. When called upon to receive it he thought that it was for the indefensible breach of discipline of having broken the rammer, and volunteered a plea of guilty, but with extenuating circumstances. Then he got the cross.

C. C. RICHARDS & Co.

Gents,—I certify that MINARD'S LINIMENT cured my daughter of a severe and what appeared to be a fatal attack of diphtheria after all other remedies had failed, and recommend it to all who may be afflicted with that terrible disease.

JOHN D. BOUTILIER.

French Village, Jan'y, 1883.

C. C. RICHARDS & Co.

Gents,—I suffered for seven years from bronchitis. Nothing gave me relief till I tried MINARD'S HONEY BALSAM. Six bottles made a complete cure, and I firmly believe it to be the best cough mixture made.

JAS. F. VANBUSKIRK.

Fredericton, July, 1887.

A prominent physician was seen buying a barrel of onions, and being guyed about his purchase, said:—"I always have boiled onions for dinner for the benefit of my children. I like onions too. They are the best medicine I know of for preventing colds. Feed onions, raw, boiled or baked, to the children three or four times a week and they'll grow up healthy and strong. No worms, no scarlatina, no diphtheria where children eat plenty of onions every day."

Consumption Surely Cured.

TO THE EDITOR:

Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who have consumption if they will send me their Express and P. O. address.

Respectfully,

DR. T. A. SLOCUM,

Toronto, Ont. 37 *Yonge Street.*

Breeding for the Dairy, and Feeding for Milk.

Hon. Z. A. Gilbert's Address at Hampton.

The first of the series of farmers' meetings was held at Hampton, Kings County, on the 7th inst.

S. L. Peters, president of the Provincial Farmers' Association, called the meeting to order. He referred in complimentary terms to the speaker of the day, Z. A. Gilbert of Maine, who, he said, needed no introduction to farmers generally.

On motion of Judge Wedderburn, T. A. Peters, president of the local society, was called to the chair. Mr. Peters, after a few preliminary remarks, introduced Mr. Gilbert, who was greeted with applause.

MR. GILBERT

said that he felt somewhat diffident on this, his first appearance before a provincial assembly of farmers. He must plead ignorance in some measure of the needs and conditions of farmers in this province. Concerning the smallness of the attendance he remarked that in any work wherever a few earnest persons meet together, they must feel that there is a crowd and go to work accordingly. It is an unfortunate fact that holds good everywhere that those who need information and encouragement mostly stay away. We can but do our work and throw it out to the public. It will take root in the good ground. Slowly but surely the work of progress marches on. The world is not revolutionized in a moment. We must work for the future, work by faith, knowing that the harvest will ripen in due time. Mr. Gilbert alluded to the institute work in Maine, not, he said, that they felt their example was above improvement, but it does the work that is done, and such results as these are derived from it. In the first place there is a world of work connected with it. It is impossible for the executive head to carry on institute work alone. The present slimly attended meeting was a case in point. There must be in each district where meetings are to be held, a few earnest men who have a deep interest in the matter, and will exert themselves to stir up general interest. In Maine, there is a Board of Agriculture made up of men from different sections of the state. Each member is expected to look after the success of all meetings in his section. There is between the members a kind of rivalry as to who shall most successfully work up the feeling of interest among the farmers. Sometimes the grange is the centre of work in a district. Farmers' clubs, too, are always willing to labor for the success of the institute meetings.

The first consideration connected with these meetings is that the work be reliable. There still lingers a prejudice against agricultural literature and lecturers. There is some cause for this, and hence the necessity of going before the farmers with that which will inspire their confidence, that upon the truth of which they can rely. These institutes should also be leading to something higher. Engrafted upon the practical should be something of the scientific, for only in conformity with nature's laws can success be gained. To do this is the most difficult part of the work. The scientific man cannot bring himself right down to the farmer, and unless he does, unless he makes all plain to the farmer he cannot gain the confidence of the latter. The speaker had found it very difficult to get competent instructors. He found any amount who had hobbies, but the introduction of individual interests had invariably a bad effect.

This method of institute work is modern. It is not very fully understood. It is really taking a common school of agriculture right into the dooryard of those farmers who care to listen to its deliberations. The study of agriculture has been largely left out of the common school system of the country, and these institutions take the place of the schools. Instead of asking the farmers to come up somewhere to a central school, it takes the school to them. It is an itinerant school of agriculture, providing instruction in any branch of agriculture in any community. It is the duty of the executive head to provide proper instructors. He is free to choose these instructors where he will, being limited only by the means at his disposal. Mr. Gilbert next proceeded to discuss

BREEDING OF DAIRY STOCK.

Stock raising of some kind is the basis of successful agriculture. In carrying this business on successfully, we are confronted by the fact that good materials are essential to success, Competition is so sharp that the margin of profit is small. The day of wide profits has gone by. The world is being levelled up so that no particular locality can very long hold any great advantage. If then the farmers would have profits from stock husbandry they must have good stock. He had in mind a costly cotton factory, idle for years past because it has old-fashioned machinery. That one illustration is universal in its application. The farmers must realize that they "must do something that amounts to something." They must make their work a business, and to do that they must have the best materials and work on business principles. The speaker enlarged upon the importance of dairying. To be successful in dairying there must be superior stock. We can butter our own bread with inferior stock, but to gain success in dairying we must have good stock. To get this stock we must breed for it, and start first of all from the stock we have now. It is not necessary to go out and pay fancy prices for stock, but we can breed it ourselves. The good cows are not bought they are bred. People keep their best stock—they don't sell it. As to the question of breeds, that was a delicate question. Different men had different favorite, and he didn't want to tread on anybody's corns. But there was no need of that anyhow. Breeds have their places. No one breed is the best possible for all localities or purposes. There is no war of breeds. There is no such thing as a comparison of breeds. One breed is suited for one purpose, and if that is your purpose you must get that breed. The office of breeds is pretty well defined. It is enough to say of the Herefords and Polled Angus that they are for beef; of the Jerseys and Guernseys that they are for butter; and of the Holsteins that they are great milkers. And it is no use to say that any one is the best for all purposes. No one breed is best for all the purposes for which cattle are reared. That is impossible. The characteristics can't go together. Take an illustration. Take the Hereford as a representation of beef cattle. Take their form and condition. They are naturally a fleshy animal, not fat, but having much fleshy material. Now that is just what you don't want in a cow for milking purposes. Then their form is smooth, compact and round, which is another characteristic of beef animals. To have a good milker you want a lean, long framed somewhat loosely built, coarse made cow.

Again, you want milk in one case for milk, and in another for the solids, for the making of butter. You want different animals for these different purposes. The strictly dairy breeds are the Holstein, Jersey and Guernsey, and the Ayrshires. There is the common shorthorn stock that ought to be a good milking stock, but that feature has been neglected, and in the States shorthorns are not good milkers. The first shorthorns in the States were good milkers but they are not so now. The secret of it was that the farmers had bred them with a "beef eye." If they wanted the genuine shorthorn milker, they would have to cross to the old country now to get the animal. The dairy shorthorn has been driven out of Maine because the farmers have bred the animals in such a way that the characteristics of the milker have been bred out of them to a large extent.

The next representative of the dairy stock is

THE HOLSTEIN.

Work with them is as yet largely experimental. But they are great milkers. They look like it. They are bred for it. They come from a country particularly adapted for it. The green succulent herbage, the moist atmosphere, have a tendency to develop the milk flow. The claim is made that they are a good all-purpose animal. He would not dispute that. Watching crosses with native stocks for some years he had found that they promised well. They grow very rapidly, too, but they are not the best type of the beef animal. It is certain that they are rapid growing animals, great milkers and produce good cross breeds. They are rather large for general purposes. We can tone the animal down in size and make her the one we want. But you won't have the Holstein then. You will reduce her capacity to produce milk if you reduce her size. The milk of the Holstein is not rich milk. That is another fact to be considered. It is impossible that a cow giving 100 lbs. of milk will give milk rich in cream. But there is merit enough in Holstein stock when you only claim for it that which it possesses. The speaker denied the statement made quite frequently that Holsteins give their full supply of milk, and yet milk as rich as that of the Jerseys. He was extremely well pleased with the results that he had seen from crossing Holsteins. The results of such crosses give richer milk, but there is less of it. Results of recent examination as to the amount of solids in Holsteins milk in general, were as a rule satisfactory, though in some herds the milk was found to be very thin.

For butter making in the New England States and this country there can be no question but the

JERSEY OR GUERNSEY

is the animal. But you don't want to raise any steers of that breed in the hope of having good oxen, and you needn't hope to make beef of them. The Holsteins have the advantage of rapid growth which makes the raising of veal possible, which in the case of the Jerseys is not possible. The latter do not produce veal calves.

There is a quality in Jersey butter not found in Holstein. The grain of the latter is finer, the color is not as good and does not keep as well in warm weather. They have in Maine, a registry of Jersey stock which is somewhat famous. It has been bred for business, not for fancy. As a result, the animals are loosely built, coarse looking animals, good milkers and good butter producers. They will not make an extravagant daily record but hold out well throughout the year.

The Ayrshires, Maine knows but little about, practically, but the merits of the breed are well known. They give a fairly good quality and quantity of milk, and their medium size is favorable to New England conditions. There is one other milk breed—the Devon stock—of which little is known here. In the Connecticut valley there are many herds, and good stockmen there claim for them, that they are the best all purpose stock in the world. They are of medium size.

In reply to a question, he said that for a herd for butter and cheese making, he would choose these coarse made, loose built Jersey stock such as they have in New England.

For the general purpose cow he believed in the Holsteins when they had been graded down to the point to which they were fast getting them in Maine. If the Ayrshires were remodelled a little all round they might fill the bill, but they are a little too small, they are not made up for that rapid development that is necessary, and their milk is not rich in butter.

At the afternoon session Mr. Gilbert took up the question of Feeding Stocks, which he characterized as a most important matter. Feeding as a science is the most modern of those applied to agriculture. Sound practice in feeding is the basis of successfull stock raising. Much importance attaches to the blood, but more to feeding and care of stock. He would emphasize this. Pay more attention to feeding and care than to breeding stock. The superiority of breeds now existing owes more to the former than to the latter. However superior an animal may be, when you neglect it it goes down. The animal and its offspring if neglected grow less and less able to transmit their distinctive characteristic to their descendants. The first thing to know about feeding is to feed enough—always enough Continuous good feeding tells the story. In proper quantities, regularly, continuously—to give food is the great lesson the farmer needs to learn. That is scientific feeding, and it gives most astonishing results. Too many farmers let their cattle do their own foraging regardless of weather or season. As a result there is good feed for a part of the year and the cattle do well. Then the pasture becomes thin and poor, and the cattle fail. They get their living out of it—that is all. Along late in October and November the cattle become thin, and they come to the barns at housing time thinner than they were in August. There is a distinct loss in this. He could find lots of instances of this in Maine to-day. It is wrong. If the pastures do not supply what is needed it ought to come from some other source. You keep your cattle for what you can make out of them. If you can get more out of the cattle by feeding them from your haymow in August—then feed it to them. Don't let the animal fail to do its level best for the lack of something to do it on.

In considering feeding for milk we want to apply a little science. The profitable way is to feed with the fork and the measure in your own hand, looking every day to see the results. If you feed, you feed for a purpose. In the growing of a calf you feed for growth, if to fatten an ox you feed for fat, if for butter you feed for butter. There is where special knowledge is needed. With stock on the one hand and fodder on the other you find by examination that the same elements are found in both. The elements only change in place. They pass from the form of fodder into flesh, fat, milk, butter, etc. Hence you want to go to your fodder and get what you want for your special purpose. A man fed beets to get butter. But there is no butter in beets and he failed. This is what the farmer needs to know. He needs to know the elements as the albuminoids carbo-hydartes, etc. The albuminoids make growth. The carbo-hydrates keep up heat in the animal system. They also contribute to the activity of the animal, but there great function is to produce heat. You cannot make out of your product that which is not in it. You can't fatten a pig on cornmeal alone. It has not in it enough albuminoid material. Cornmeal does not produce a liberal flow of milk, for it does not contribute the albuminoid to furnish casein. Feed albuminoids and you get a good flow of milk, but if you feed very heavily of albuminoids the animal sacrifices growth to milk flow and runs down in flesh. This must be guarded against.

Good sweet clover, is the best food for milk. It has the various nutriments in a proper proportion to keep the animal in good order and at the same time get a good milk flow. It is a good digestible food. The next best thing to that is the same food dry, in the form of hay. It is not quite as digestible, but can be improved by adding a more concentrated grain food of the same elementary character. It has been found by experiment that a cow to produce good results needs $2\frac{1}{2}$ lbs. albuminoids and $12\frac{1}{2}$ carbo-hydrates per day for a cow of 1000 lbs. weight. That is a rate of about 1 to 5 4-10. These are averages.

Next to clover hay comes timothy hay, and where we find it, as we generally do, mixed with clover and other grasses it is almost as good, but when we have to feed for so many months we need to economize fodder. This can be done by proper combination. A pound of digestible material in oat straw, will do as much as the same amount of digestible food in clover or timothy. But you must have proper combination. Combine something that will tone up the proportion of albuminoids. Wheat, oat meal, oats, cotton seed meal, pease meal, linseed meal—any of these combined with the straw in a proper proportion will give as good results as the clover hay.

Oat straw fed with clover hay—say 2 lbs. of straw to 10 lbs. of hay, will make a fodder very closely identified with good timothy hay. It is astonishing how much coarse fodder cattle will eat if it is properly mixed with nutriments of other kinds.

Cattle won't get sick of a food that contains the proper nutriments in proper proportion. A good oat straw is, for feeding purposes, when properly used, almost as good as timothy.

As to the number of times that cattle ought to be fed in a day, Mr. Gilbert found in many years' experience that twice a day—a morning meal and evening meal gives the best results. There is more economy of labor in it and a saving of fodder. He thought that by dropping the noon meal they would about save that much fodder. The animals have just about time enough to thoroughly digest what they eat. Cattle will, if permitted, eat more than they can thoroughly digest. On two meals a day they have ample time for complete digestion to take place.

Feed straw and hay at different times. He himself would give the best quality first and the poorer afterwards. It is a good idea to weigh the hay till you have cultivated your judgement as to the proper quantity.

As to cutting straw or hay there was no apparent advantage in doing that and mixing with grain. Prof. Stewart claimed better results from it, but the speaker was not aware that there was solid ground for the contention.

Then as to quantity of fodder. A very good milk ration is: 12 lbs. clover hay, 10 lbs. good oat straw, 4 lbs. wheat bran and 2 lbs. cotton seed meal—equal to 22 lbs. course fodder and 6 lbs. grain—a very good milk producing fodder. Pease meal would be almost as good as cotton seed meal, and he would recommend farmers to raise more of it. Thousands and thousands of tons of it go down from Ontario over the Grand Trunk for shipment to Europe for food purposes. Wheat bran produces a great milk flow. Wheat middlings if used instead of bran should be used in somewhat smaller quantity. This ration he had given is criticised as a rather heavy one, and he was not sure but that a smaller ration would give as good results. Take, say, 15 lbs. of the coarser fodder instead of 22, and probably as good results would be obtained. He gave the ration of meal always dry. The ration he had given was the ration for a day.

Roots are good, but there is not much nutriment in them. They cost in Maine more than they are worth. Down there they are an expensive crop. It costs a great deal to handle and store them and keep them, and then they are fed at a time of year when such food may be an injury rather than a benefit to the animal.

Cows giving a good flow of milk ought to have as much water as they will take twice a day. If the cow is giving but little milk there is less need of water. Water shouldn't be heated for stock. It has been tried at experimental stations and no better results are produced. What is called for in winter is that it be not ice cold. Take it fresh from a well just as you would like it yourself.

We want to be very careful about this matter of feeding stock. We want more concentrated food to mix with our coarser fodder, and we don't want to go to the west to procure it.

In reply to a question, Mr. Gilbert said that buckwheat is a good deal like wheat middlings in character and value as a fodder.

Being questioned about the marsh grass found in this province, as for example on the Hampton marshes, Mr. Gilbert remarked that its nutriment was a carbo-hydrate, and that it needed much albuminoid matter mixed with it. It costs from $25 to $28 a ton in Maine. Oats are the highest priced fodder to sell. Better to sell them and buy other food for the cattle. Cotton seed meal just now is very high because of the lack of supply. Ordinarily it is a little higher than wheat middlings, than which it is 50 per cent. better as fodder. He would give cattle a pinch of salt every day with their rations.

Concerning ensilage, he said the mission of the silo is to preserve corn fodder. Now do you want to raise corn? If so, there is no question of the economy of it. But if not, you don't need the silo. There is no special advantage from saving fine strawed fodder in silos. It has been proved over and over again. Unless such fodder is perfectly preserved in silos there is a loss of nutriments. With corn it is different. It is hard to dry corn, but the silo comes in and enables you to preserve the corn without drying it. Hence its value. Concerning the feeding of southern corn he said that corn in the amount of nutriments was very similar to oat straw. It must be fed in combination. For himself he had discontinued fodder corn and taken to the hay now. But if he were using it he would cut it in quantities and take it to the barn, instead of cutting a little every day. It would be a little better for having a little of the wet dried out of it. In the ration he had given, if wheat middlings were exchanged for wheat bran, he would use 3 lbs. of the middlings. As to feeding of cotton seed meal to cows with calf he knew of no injurious results, unless the dam were fed too liberally. Food must be suited to the animal. Sometimes it is necessary to humor an animal. Perhaps one wants more of the albuminoids, another more of the carbo-hydrates. Concerning substituting winter for summer dairying he found the results more satisfactory. You get more butter during the year, you get it in winter when the price is best, and as there is one time when the cow is best profitable than during the rest of the year, it is better to have that time come in summer when food is cheapest. There is also a saving of labor, for in the winter the farmer has more time to give to dairying, Mr. Gilbert went on to show that fall calves were better than spring calves, and gave a good deal of advice on the subject of raising calves.

Darwin's Theory.

Darwin's theory of the "survival of the fittest" is simply that the weakly die, while the robust and hardy thrive and live. How true this is of seed growth, and how necessary to sow only that which is suited by nature to live and develop.

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Soiled bedding should be kept through the day away from the stalls. If piled under the mangers the horses are compelled to breathe the offensive ammoniacal odors, which are injurious to their eyes, lungs, and general health. Many a horse has learned the habit of pulling on his halter through his efforts to get away from the smell of soiled bedding.

Oats contain certain matters that in a most marked manner facilitate the digestion, promote the well being and develope the energy of the horse. It is a grain easily digested in itself, while being strengthening and nutritive without forcing to fatness.