THE Maritime Farmer.

AGRICULTURE THE TRUE BASIS OF A NATION'S WEALTH

VOL. II. FREDERICTON, N. B., THURSDAY, AUGUST 4, 1881. NO. 49

SPAVIN CURED.

ST. JOHN, N. B., January 6th, 1880.

DEAR SIRS:
In regard to your favor of a few days ago, I would say: About one year ago a horse owned by me contracted a large Bone Spavin for the cure of which I tried a number of the liniments and lotions advertised to cure the same, without any effect, and he became very lame. A friend of mine recommended me to try **Fellows' Leemings' Essence**. I acted upon his advice, and now I am happy to say the lameness has ceased and the spavin disappeared. I now consider him entirely cured, and would cheerfully recommend **Fellows' Leemings' Essence** as being the best remedy in the market for all lameness that horses are subject to.

Yours truly,
THOMAS F. FAY.

RINGBONE CURED.

AUGUSTA, Me., March 8th, 1880.

DEAR SIRS:
I have had occasion to use **Fellows' Leemings' Essence** on a horse so lame from a Ringbone that I could not use him. I have been using it about three weeks, and find it does all you claim for it, as the lameness is gone and the enlargement has almost disappeared. I firmly believe a few days more will make an entire cure.

Respectfully yours,
JAMES T. PARKER.

EYES.

Fellows' Golden Ointment has no equal as a cure for **Sore Eyes.** Most wonderful cures have been made by its use. No one having weak eyes should fail to give it a trial. Price 25 cents.

IMPORTANT

To All Who Wear Clothes!

J. R. HOWIE

CALLS the attention of all who wear Clothes to his

LATEST IMPORTATION OF

CLOTHS,

Comprising the latest Novelties and Best Makes.

A FULL LINE OF

ENGLISH WORSTEDS,

in the latest patterns. A large variety of choice patterns of

SCOTCH TWEEDS.

A few very Choice Patterns in

FRENCH GOODS

A full line of

English & Canadian Tweeds.

Always on hand a full line of the Best Quality of **TRIMMINGS.**

Employing a large staff of experienced workmen, I am prepared to fill orders promptly in the **LATEST NEW YORK STYLE.**

☞ Satisfaction guaranteed or no sale.

JAS. R. HOWIE

Merchant Tailor & Clothier,
QUEEN STREET,
NEXT DOOR TO BRAYLEY HOUSE.

GREAT

TRADE SALE

—:o:—

EDGECOMBE & SONS

HAVE ON HAND, and offer for sale

UNTIL FURTHER NOTICE

at prices much below regular rates, and which must insure prompt sales, the following stock warranted first-class in every respect:—

5 Concord Carriages;
4 Piano Box Carriages;
3 Top Buggies;
2 Single and Double Phaetons with Shifting Tops;
3 Jump Seat Carriages
4 Portland Fancies;
5 Express Wagons, single and Double;
13 Farm Wagons, with from 1 1-2 to 2 inch axles;
3 Slovens.

☞ Contracts will be made for any description of vehicles in large numbers, at favorable rates. Our facilities enable us to produce the best work in the shortest possible time.

Send for circulars and prices, with especially favorable terms.

EDGECOMBE & SONS,
Fredericton Steam Carriage Work

Revised New Testament.

OXFORD EDITION.

WE have the pleasure to inform our friends and customers that we have perfected arrangements to ensure a full supply of the various Editions of the

Revised New Testament,

which will enable us to fill Orders at as early a date as any house in Canada.

They will be sold at 30 cents and upwards,—depending upon size and style of binding,—with a liberal discount to the Trade.

Orders will be filled in the order of their receipt. We therefore request that they be sent in as promptly as possible.

J. & A. McMILLAN,
Booksellers, Publishers, etc.
St. John, N. B., April 21.

First Premium

Provincial Exhibition, 1878.

REED & REED

WOULD respectfully call the attention of the GOOD HOUSEWIFE to the superior quality of their

BROOMS & WISPS.

They manufacture an article not excelled by any in the market, either domestic or imported.

MERCHANTS near the upper St. John will find it especially advantageous to deal with them. All orders promptly filled, and satisfaction guaranteed.

REED & REED

REVOLVERS.

Just Received:

ONE CASE of Revolvers and Cartridges. For sale low.

Z. R. EVERETT.

Fredericton, May 26

FIRE INSURANCE.

NOTICE TO POLICY HOLDERS.

THE General Agent of the "Queen" Insurance Company in this Province having received instructions from the Head Office in England to discontinue all Sub-Agencies, in consequence of losses under Sub-Agents during the past few years exceeding the Premiums, I am not authorized to take any new risks in that Company, but am prepared to renew all Policies as they expire, and generally to effect Insurance in any of the following First-class Offices:—

Imperial, of London, Estab'd 1803
CAPITAL, $8,000,000

Northern, of London, Estab'd 1836
CAPITAL, $15,000,000

Ætna, of Hartford, Estab'd 1819
CAPITAL, $3,000,000
With a NET SURPLUS of $2,335,965.97

Hartford, of Hartford, Estab'd 1809
CAPITAL, $1,250,000

British America, Toronto, Est. 1833
CAPITAL, $1,000,000

☞ *Orders respectfully Solicited.*
All Losses promptly paid. ☜

Detached Residences in the *City* and *County* insured on the *Three Year* plan at low rates.

☞ Please call before insuring elsewhere.

JOHN BLACK,
Agent, Fredericton

July 15.

THE DOMINION AFETY FUND

LIFE ASSOCIATION,

SAINT JOHN, N. B.

Incorporated 1881.

The Popular Plan of affording the Protection of Life Insurance.

SIMPLE, SAFE AND ECONOMICAL.

The dangers and defects of the old "Reserve" Plan, and the weakness and uncertainty of the Co-operative Plans avoided.

Endowments to Persisting Members.

J. G. GILL,
Agent for York County.

Fredericton, April 14

NEW

BOOK BINDERY.

The Subscribers have opened a

BOOK BINDERY

in connection with their

BOOK AND STATIONERY ESTABLISHMENT,

and are now prepared to attend to all orders given them in that line.

☞ All kinds of **Magazines, Periodicals,** and **School Books,** in fact every description of Books, bound in First Class manner, and at Low Prices.

Binding of Music a Specialty.

M'MURRAY & FENETY.

Fredericton, May 26

REAL ESTATE,

&c., &c., &c., FOR SALE.

I AM instructed by DAVID BROWN, of Stanley, York Co., to sell by Public Auction, on the premises, on **MONDAY**, the 15th day of August next, the whole of his PROPERTY, STOCK, FURNITURE, &c., consisting in part of the following:—

One lot of land containing fifteen acres, one rood and fourteen perches, more or less. On this lot there are a Dwelling House, Two Barns, and Out Houses; also to the rear of this, one lot containing twenty seven and one-half acres, more or less. All the above will be sold as one lot.

Also three Milch Cows, one Heifer, two Spring Pigs, a quantity of Hay, about nine acres of oats, and a quantity of Household Furniture, Carpenters' Tools, &c.

TERMS.—One-third down on land and buildings, the balance in six annual instalments with interests. The terms of stock, furniture, &c. made known on day of sale.

SAMUEL BLAIR,
Auctioneer.

Stanley, July 16—fins.

$10 Outfits furnished free, with full instructions for conducting the most profitable business that anyone can engage in. The business is so easy to learn, and our instructions are so simple and plain, that anyone can make great profits from the start. No one can fail who is willing to work. Women are as successful as men. Boys and girls can earn large sums. Many have made at the business over one hundred dollars in a single week. Nothing like it ever known before. All who engage are surprised at the ease and rapidity with which they are able to make money. You can engage in this business during your spare time at great profit. You do not have to invest capital in it. We take all the risk. Those who need ready money should write to us at once. All furnished free. Address TRUE & Co., Augusta, Maine.

HELP Yourselves by making money when a golden chance is offered, thereby always keeping poverty from your door. Those who always take advantage of the good chances for making money that are offered, generally become wealthy, while those who do not improve such chances remain in poverty. We want many men, women, boys and girls to work for us right in their own localities. The business will pay more than ten times ordinary wages. We furnish an expensive outfit and all that you need, free. No one who engages fails to make money very rapidly. You can devote your whole time to the work, or only your spare moments. Full information and all that is needed sent free. Address STINSON & Co., Portland, Maine.

House for Sale.

THAT beautifully situated House and property belonging to the Estate of the late WILLIAM A. McLEAN, is now offered for sale. The property has a frontage of about 80 feet on Sunbury Street, and includes House, Stable, Barn, Woodshed, and a large garden, and is one of the most pleasant and desirable localities in Fredericton. It is offered for sale on very easy terms.

For further information apply to A. A. STERLING, Esq., or to

WM. A. McLEAN.

FOR SALE OR TO LET.

Possession given immediately.

THAT valuable Farm in Kingsclear, about two miles from Fredericton, situate on both sides of the Old Road, known as "THE SIMMONDS FARM," owned by the undersigned. In connection with the Farm we will sell or rent, Horses, Carriages, Cattle, and Farming utensils.

For further information apply to

FRASER & WINSLOW.

April 7.

Haying Tools.

Just received from the Manufacturers:

70 DOZ. Scythes, American and Canadian, as follows:—Dunn Edge Clipper, Oshawa Clipper, Eureka, Climax, Razor Blade, Top Top, Black Snake, Dominion Champion, Cast Steel;
35 doz. Scythe Sneaths, American and Canadian; 3 doz. Iron Sneaths;
25 doz. Hay Forks;
35 " Hay Fork Handles;
125 " Rakes; 50 boxes Scythe Stones;
11 " Reaping Hooks and Sickles;
3 tons Grind Stones;
8 boxes Grind Stone Fixtures.

For sale Wholesale and Retail by

JAMES S. NEILL

Vegetine

WILL CURE

SCROFULA!

Scrofulous Humor.

VEGETINE will eradicate from the system every taint of Scrofula and Scrofulous Humor. It has permanently cured thousands in Boston and vicinity who had been long and painful sufferers.

Cancer, Cancerous Humor.

The marvelous effect of VEGETINE in case of Cancer and Cancerous Humor challenges the most profound attention of the medical faculty, many of whom are prescribing VEGETINE to their patients.

Canker.

VEGETINE has never failed to cure the most inflexible case of Canker.

Mercurial Diseases.

The VEGETINE meets with wonderful success in the cure of this class of diseases.

Salt Rheum.

Tetter, Salt Rheum, Scald Head, &c., will certainly yield to the great alterative effects of VEGETINE.

Erysipelas.

VEGETINE has never failed to cure the most inveterate cases of erysipelas.

Pimples and Humors on the Face.

Reason should teach us that a blotchy, rough or pimpled skin depends entirely upon an internal cause, and no outward application can ever cure the defect. VEGETINE is the great blood purifier.

Tumors, Ulcers, or Old Sores.

are caused by an impure state of the blood. Cleanses the blood thoroughly with VEGETINE and these complaints will disappear.

Catarrh.

For this complaint the only substantial benefit can be obtained through the blood. VEGETINE is the great blood purifier.

Constipation.

VEGETINE does not act as a cathartic to debilitate the bowels, but cleanses all the organs enabling each to perform the functions devolving upon it.

Piles.

VEGETINE has restored thousands to health who have been long and painful sufferers.

Dyspepsia.

If VEGETINE is taken regularly, according to directions, certain and speedy cure will follow its use.

Faintness at the Stomach.

VEGETINE is not a stimulating bitters, which creates a fictitious appetite, but a gentle tonic, which assists nature to restore the stomach to a healthy action.

Female Weakness.

VEGETINE acts directly upon the causes of these complaints. It invigorates and strengthens the whole system, acts upon the secretive organs and allays inflammation.

General Debility.

In this complaint the good effects of the VEGETINE are realized immediately after commencing to take it; as debility denotes deficiency of the blood, and VEGETINE acts directly upon the blood.

VEGETINE

IS THE BEST

Spring Medicine.

VEGETINE is sold by all Druggists.

CATTLE

—FOR—

SHIPMENT TO ENGLAND.

THE Hon. Judge Peters of Charlottown, P. E. I., and Messrs. J. & W. F. Harrison of Saint John, having decided to throw into one, their properties at GRIMROSS ISLAND, on the St. John River, offer the same to a desirable tenant or Company for a term of years at a moderate rental. This property, from its admirable location and richness of soil, bounded by the river on one side, and Gagetown Creek on the other, and containing a large quantity of high intervale adapted for producing the best quality of hay, grain and roots of all kinds, as well as a very wide range of the richest pasturage, and containing about nine hundred acres in all; also embracing about twenty acres of Upland, near the centre of the farm, on which to erect suitable buildings, which would, at all times, be far above the highest freshets, and having already barns in good order, admirably located on the intervale, capable of holding a large quantity of hay, possess advantages for raising Cattle for the English Market unsurpassed, if at all equalled, in the Maritime Provinces, or probably in the Dominion.

For full information apply to

Hon. J. H. PETERS,
Charlottetown, P. E. I.
J. & W. F. HARRISON,
St. John, N. B.
or T. S. PETERS,
St. John, N. B.

June 23

WANTED

BY

Fredericton Leather Company

HEMLOCK BARK,

HIDES and TALLOW,

for which the HIGHEST MARKET PRICES will be paid in

CASH!

AT THEIR TANNERY, HEAD OF KING STREET, FREDERICTON.

ISAAC W. SIMMONS,
Manager.

October 7, 1880.

THE

DOMINION EXHIBITION!

OF 1881

WILL be held at the CITY OF HALIFAX, NOVA SCOTIA, in the ROYAL EXHIBITION BUILDING AND GROUNDS, from

21st to 30th EPTEMBER,

when Cash Prizes to the amount of **$15,00.00** will be awarded for Horses, Cattle and other Live Stock, Machinery of all kinds, General Manufactures, Mining, Agricultural, Forest, Fishery and Dairy Products, Fruits, Plants and Flowers.

No charge for entry of exhibits.

Prize lists, entry papers, and all necessary information may be obtained on application.

Manager—PROF. GEO. LAWSON, LL.D.

WILLIAM McKERRON,
Secretary.

Halifax, June 6th, 1881

STOVES, STOVES.

A LARGE stock of Cook and other Stoves at

JAMES S. NEILL'S.

Grindstones and Fixtures.

JUST RECIEVED:

5 TONS Grindstones; 9 cases Grindstones Fixtures. For sale by

JAMES S. NEILL.

REAPING HOOKS, &c.

12 DOZ. Reaping Hooks; 4 doz. Sickles; 2 doz. Bush Scythes; 1 doz. Bill Hooks.

JAMES S. NEILL.

Potatoe Diggers.

12 DOZ. Potatoe Diggers; 4 doz. Potatoe Hooks.

JAMES S. NEILL.

July 21

Agriculture.

NOTICE.

Secretaries of Agricultural Societies will please furnish us with dates and places of holding their Annual Shows, as we wish to publish the same for general information.

The "Kincardine" Agricultural Society will hold their Show and Fair at their Show Grounds on the 7th of October.

British Agricultural Depression.

One cannot take up a British agricultural journal without noticing that much thought is now given in the old country to the subject of agricultural distress. That subject is made the text of addresses delivered in all parts of the country, by lecturers, country gentlemen interested in agriculture, and members of parliament addressing their constituencies. At agricultural societies' meetings, at farmers's meetings, and at dinners it is the all-absorbing topic. A succession of bad seasons and active foreign competition have brought on the British farmer, what one speaker calls, "a period of acute adversity." For the first cause, the British farmer can only trust in providence, and hope that the seasons will take a favorable change, and that the sun will show himself more, hereafter, the lord predominant of day, and that his reign will not be so often and long obscured by the rain of the clouds.

Farmers, everywhere, are subject to bad seasons; and farmers in New Brunswick, who this year have been much under the clouds and have suffered from over-plentiful rainfalls, will be able to sympathize with their brethern in the old country, who have experienced so much gloomy weather, so much wet and unfavor-harvesting weather for the last two or three years. The other cause of agricultural depression—foreign competition—is not so likely to be lightened. There is a great outcry now, in some quarters, against free trade, and the old protection doctrine is gaining advocates, who are becoming more and more urgent. Free trade, that is all on one side, which opens the ports of Great Britain to the importations of the manufactures, the grains, the agricultural produce, and the cattle of foreign countries, who bar their ports against the free entry of British manufactures, etc., is denounced as unfair and a demand is made for fair trade. Foreign nations which enjoy the benefits of the free entrance of their goods, etc., into Great Britain, should reciprocate, and allow the as free entrance of British goods, or, if they will not, they should be met by high duties on the wines, silks, and articles of luxury they import them from.—"Fair play is bonnie play." But it is extremely unlikely, whatever degree of protection the manufacturers of Great Britain may obtain, that the farmers will be included. The British nation will hardly consent to have its bread taxed again. Whatever relief the British farmer may get, it will be in the way of the lightening of the internal taxation that falls on him, and not by putting a duty on foreign breadstuffs, etc.

Speaking, lately, at the East Lothian Agricultural Society dinner, on the subject of agricultural depression and protection, and the refusal of foreign nations to follow the example of free trade set them by England, Hon. Hugo Charteris (we see by the *North British Agriculturist*) said:—

"They had hardened their hearts; the little grants they had given us they had withdrawn; and the feeling about protection in this country was now very much different from what it was a short time ago. We were now beaten by foreign nations. In almost everything they undersold us in our markets. Americans were our greatest rivals; they beat us in shooting, they beat us in rowing and cricket, and he was sorry to say they beat us also in horse racing, for an American horse won the Derby this year. They had not yet produced a Tom Morris, but he should be very sorry to say that they never would, because they were capable of great things. The doctrine of protection was one which must be tempting to the British farmers, but he thought it was well to be cautious before one embarked upon it. It was a tempting doctrine, and one which to be established some might think would be perhaps desirable; but he asked them, "Did they think the British nation would ever consent to have thesr food taxed again?" The theory of cheap bread was one which took them some time to learn, and after being once learned they would never give it up. They might have a certain form of protection. They might clothe protection in a sort of fancy dress, some one said, and make up an image different from itself, but yet it was really protection only in different clothing. That was reciprocity. Some thought that in this form they might have protection in England for manufactured goods, and that a tax might be put on luxuries such as wine, in order to bring the foreign nations to their senses; but he was perfectly certain they would never have protection again applied to agricultural products. It seemed to him that it was not to this form of legislation that they should apply, although there was something which ought to be done by legislation, and that was to redress the incidence of taxation. He though that farmers were unjustly taxed. At least it seemed to him that their position was hard compared with the man of business who lived in the town. The highway rates, the School Board rates, and many more rates, weighed heavily on the already afflicted agriculturist, and made it extremely difficult for him to hold his head above water; and he thought some Government, either this or some other, might do something for his relief in that direction."

Death of "Jersey Belle."

When great men die, lengthy obituaries are written to remind the world of their loss and to perpetuate their memories. When great animals pass away, the same is done. The agricultural world has suffered the loss of one of the most remarkable milch cows on record. "Jersey Belle," owned by Charles O. Ellms, of Scituate, Mass., died on the 11th inst. of milk fever, after calving. She would have readily brought, the day she died, $2,500. The Massachusetts *Ploughman* gives a portrait and a record of this extraordinary animal. "Jersey Belle" was numbered 2463 in the Jersey Herd Book, and traced her blood to Motley's celebrated "Dick Swiveller," whose grandam was the imported cow, "Duchess," and was just nine years old at the time of her death. She was a wonderful butter producer. It is said, that, at the time of her calving, four years ago last March, her bag measured five feet and one inch in circumference, and was pronounced a wonderful sight the country round. Between the 5th of March, 1877, and 5th March, 1878, she made 705 pounds of butter. "Jersey Belle" has left offspring—four cows, Belle, Lass, Maid, and Lady of Scituate—and two bulls, King, and Duke of Scituate—besides the calf born this month. It is to be hoped that she has perpetuated her extraordinary excellences.

Scotch Sheep.

Scotch sheep—mostly Cheviots black faced and halfbreds, ewes and wethers—are now much sought for in England. Great numbers have been sold at the fairs throughout England, and careful flockmasters have been buying unusually largely lately. The liver rot has prevailed widely in many midland, western, and southern English counties during the last two years, while in Scotland, the sheep have been free from flukes. Very few of the thousands of Scotch sheep brought south, when kept on sound land, have shown any signs of the liver rot. The ewes have been mated with Cotswold, Lincoln, Border Leicester, Oxford, and Shropshire rams, and have generally, it is said, produced strong, useful lambs.

Caring for Working Horses.

"The merciful man is merciful to his beast" is an old and true saying. The neglect, and ill-usage of dumb, willing, and useful animals, who spend their laborious lives in man's service, is an offence against the humanity which includes all living creatures in its care, and is also a shortsighted error. Farmers should look well after their working horses, and see that they are in a vigorous, hale condition, and kept free from all sores, galls, and bruises. It is true humanity (or equamity if you like) besides self interest, to do this. A writer to an agricultural paper, on the above subject, says:—

"As a rule, the farm horse seldom suffers for want of hay or grain, and they generally get their three meals a day, as regularly as does the driver, therefore it is useless to waste time in exhorting our brethern on this duty of feeding plenty and regularly. But no matter how well fed or carefully groomed, the horse would be in a sorry condition for a day's work, if his shoulders, neck or back were covered (as n sometimes the case) with harness sores. Not only is it cruel and inhuman to work an animal in this condition, but it shows that its owner has been guilty of gross neglect to allow his team to become covered with galls, when a little attention at the outset would have prevented all this misery to the animals, and perhaps loss of its use to the owner.

We are well aware that the duty of attending to the horses is often entrusted to the hired man, and sometimes he is a man who is simply working for twenty dollars a month without regard to his employer's interest, and if he discovers that the harness is wearing off the skin from the shoulders or back of his team, he says nothing about it, neither makes an effort to prevent it, and the first intimation the farmer has that there is anything wrong, is the strange actions of the team when set to pulling at a load. To prevent the horse from becoming sore, we have found it an excellent plan, during the first few weeks' work in the spring, to thoroughly wash those parts likely to be affected with the harness, three or four times each week. See that the collar and back pads are free from dirt, and if possible do not work the team in the rain, for a few hours work during a warm shower would be likely to start the hair and perhaps the skin. If, however, with all the care possible, the horse should become sore, there are numerous articles for use by which the evil may be held in check, if not cured. For a sore on a horse's neck, there are pads made of sole leather or zinc, which are a great improvements over an old rag, and for sore shoulders by using a sweat collar and removing the stuffing at such places as would cover the sore, the horse can work with but little inconvenience. We do not profess to be a horse doctor, but having used a horse for years that had a very tender neck and shoulders, we have, by the above means, been able to keep it sound and free from sores through the working season.'

We see by the *Transcript*, that, Capt. J. W. Wilmot, of the Sackville barque, "Ouaway," brought out from England on his last trip, which is to be his last, as he intends to devote his attention to farming in future, a pure Yorkshire sow, Royal Irish Grazer, and Lincolnshire boar. He intends to go into pig raising on a large scale, and will cross these three breeds. The ewes and lambs—six in number—are of pure bred Oldenburg and Leicesters. Also an enormous Leicester yearling ram, by a celebrated pure bred ram named "Lemengsen." The captain also goes in for large Oldenburg geese, and pure fowls of the Spanish breed, etc. We like to notice such importations of good stock.

Uses of the Soil.

There was a time in the history of our world when there was no soil, and consequently no vegetation, for without soil, there can be no vegetable life. Soils were first formed by the action of heat, frost and rain upon the rocks, aided subsequently and since by the decomposition of vegetable matter. For purposes of vegetation, soil has a three-fold use. In the first place, it is the cradle of the embryo plant, and also its stay and support in after growth. It receives and holds the seed as well as the roots of trees, and constitutes the pillar and prop which upholds the growing plant. This is the mechanical office of the soil with respect to vegetation. Its office also is to furnish food for the plant. For this purpose the perfect soil contains the various ingredients upon which plants feed, held in solution by water. Without moisture the seed might remain dormant for thousands of years, and then on being moistened will expand and start into life, the embryo plant or tree.

Water is the solvent that dissolves and contains in solution the various substances which go to the body of the plant, just as sugar is dissolved and held in solution by tea or coffee; it is not only a solvent but a vehicle to carry the food up the pores of the plant and distribute it in all its parts. That mysterious power which calls the plant into life, continues its vivifying influence to sustain and support that life, and water is one of the chief agencies employed to that end. The soil is somewhat like a sponge, taking up water and holding it to the parched lips of the plant it nourishes. The absence of this great solvent would render all soils barren. It is therefore the great physical regenerator of the universe. The plant itself when green and growing is more than three fourths water, water holding in solution the ingredients of nourishment and growth for the plant. So of the human system, the great bulk is water and the blood that nourishes it is only water holding in solution the nutritious portions of the food. The soil not only contains this important solvent, but it also consists of various ingredients which react on each other and become mutual solvents. By the aid of water the vegetable substances mixed with the mineral in the soil are reduced to a state in which they become the food of plants. The goodness of a soil, therefore depends upon its capacity to render mechanical support to plants and supply them with food. If well propped up and well supplied with food and warmth they must grow. And, in this connection, we would emphasize to the farmer and gardener the importance of a knowledge of the soils they cultivate, what is in their soils which adapts them to this or that special purpose in agriculture. For example, they should not only know the general fact that lime spread on a field so soured that it will produce nothing but sorrel, will correct it, but should understand just the reason why it operates in that way.

The roots of a plant are so arranged as to support it in an upright position spreading around the stem and staying it like braces in a building. But it is all important that these braces should have a firm foundation to rest upon. Plants that run high must root deep and have wide-spreading roots or they will be easily prostrated by the wind. Now the texture of the soil and the nature of the plant should be adapted to one another. Soils vary; there are stiff and tough clays; loose and open sand; moist even to almost liquid marsh, and rocks, with but little moisture between them. In the fibrous rooted plants, such as wheat, rye and oats, it is obvious that porous open soils will afford the roots the best opportunity for running deep and broad, whereas close, clay soils resist their passage and are therefore unfriendly. Hence the value of lime in changing the texture of clay soils. It mixes with the clay and causes the mass to become friable and open like fine sand; this enables the roots to penetrate deeper into the soil.—*Maine Farmer.*

To Tell the Age of Sheep.

The books on sheep have seriously misled flock-masters on this subject. Almost any sheep owner will tell you that after a year the sheep gets a pair of broad teeth yearly, and if you show that his own three-year-olds have four pairs of broad teeth, he can only claim that they are exceptions, and protest that they do not exceed three years of age. Now these cases are no exception, for all well bred sheep have a full mouth of front teeth at three years old. Some old unimproved flocks may still be found in which the mouth is not full until near four years old, but fortunately these are now the exceptions, and should not be made the standard, as they so constantly are. In Cotswolds, Leicesters, Lincolns, South-Downs, Oxford-Downs, Hampshire-Downs, and even in the advanced Merinos, and in the grades of all of these, dentition is completed from half a year to a year earlier. The milk or lamb teeth are easily distinguished from the permanent or broad teeth, by their smaller size, and by the thickness of the jaw-bone around their fangs when the permanent teeth are still enclosed. As the lamb approaches a year old, the broad exposed part of the tooth becomes worn away, and narrow fangs projecting between the gums stand apart from each other, leaving wide intervals. This is even more marked after the first pair of permanent teeth have come up, overlapping each other at their edges, and from this time onward the number of small milk teeth, and of broad permanent teeth, can usually be made out with ease. Another distinguishing feature is the red or dark coloration of the fangs of the milk teeth, while the exposed positions of the permanent teeth are white, clear, and pearly. The successive pairs of permanent teeth make their appearance through the gums in advanced breeds at about the following dates:—The first pair at one year; the second pair at one year and a half; the third pair at two years and three months; the fourth and last pair at three years. It will be observed that between the appearance of the first two years there is an interval of six months, while after this each pair comes up nine months after its predecessors. For backward grades, and in the unimproved breeds the eruption is about six months later for each pair of teeth, but even with them the mouth is full at three years and six months.—*Professor James Law in New York Tribune.*

Summer Grape Pruning.

About this, as in nearly every other horticultural subject, there is considerable difference of opinion. We have known vines to be "pruned to death," in following out some wild theory that some addle-headed fellow had started, while others would prune so sparingly as to be of no benefit at all. Many strip the vines of three-fourths their leaves to allow the sun and air to get in, as they say, while others allow the grapes to be smothered for want of a judicious removal of the leaves. Pinching the ends of the vines, or clipping off a portion of the sprouts where they are growing rampantly, so far as it appears to be necessary to any reasonable judgment, will greatly benefit the crop just as the reverse will damage it. The thinning-out of the surplus bunches, by removing from a third to a half of them as they usually show themselves, is of the greatest importance. In doing this, be sure always to remove the weakest and most imperfect. The laterals of the fruit-bearing branches, which have been pinched or clipped, will throw out more branches, and these also should be pinched, so as to leave only a single leaf. The laterals on the canes, remember, are to be the fruit-bearing canes for next year, and should be allowed to grow unchecked. Care must be taken to tie-up such of the branches containing bunches which are too heavy to bear their own weight. There should, also, be no more wood allowed to grow than is needed for the following year's fruiting.

These simple general hints may be of service to those whose knowledge of grape-growing is limited. In a little while—a few years of experience, which can be greatly aided by examining the way that good grape-growers follow—will soon put one in the plain road to success.—*Germantown Telegraph.*

Orchard Management.

The following hints by a writer in an exchange are practical and to the point. Of course they must be taken with allowance, and not followed blindly, no matter what the circumstances are:

In three years I improved the production of my fruit trees from fifteen to two hundred bushels by treating them in the following manner: I first reduced the top one-fourth, then in the fall I plowed the soil as well as I could, it being quite rocky, and turned a short furrow toward the trees. As I worked from them I let the plow fall a little lower, and when between the trees I allowed the plow to run deep, so that the water would settle away from them in the spring. I hauled a fair quantity of coarse manure, pulverized it well and marked out hills, manuring each hill. I planted corn and beans, and harvested a nice crop of corn, beans and pumpkins. The following spring I repeated the same form of cultivation, and harvested the second crop of corn, beans and pumpkins which paid me to satisfaction. My trees began to grow very fast, and that fall I harvested 70 bushels of very good apples. The following spring I manured for the third time; planted it to potatoes, which grew very large, but rotted very badly. I made up the loss, however, by harvesting 200 bushels of large and natural fruit. I changed the production of a yellow bell-flower tree from three-forths of a bushel to seven bushels, and sold them for $1.25 per bushel, which I think a very good return for my labor. From my experience I am of the opinion that most trees have too much top for the amount of roots, and a deficiency of nourishment for producing a developed fruit. I like fall or winter pruning. Always cover the cut with grafting wax or a thick paint. After removing the limbs by thinning out the center of the tree, it has a tendency to make it grow broad. Too many varieties are bad, and hardy stock is all that is needed.

Farming Work Experimental.

One year a farmer plants potatoes early, and, obtaining a good crop, concludes that early planting is essential. If he happens to put in a late patch the same year, that proves a failure, he is still further convinced that early planting is better than late. But in the next year his results are reversed; he is at sea again. Both experiments have been for naught, so far as establishing a point. Think for a moment how many influences bear upon the results of any given experiment in growing a crop; the quality of the seed, its health, vigor, soundness, and above all its inherent characteristics as a germ of the future plant; the soil, with its almost infinite variation in the proportion of its substances; the temperature of the earth in which the roots are held and the atmosphere surrounding its stem and leaves; the moisture in both earth and air; the time in which the seed is planted, whether before, at, or after the proper period; the care and cultivation; the method of harvesting, measuring and preserving.

All these and many other minor influences must be taken into account before any definite point can be settled. It is strange that the everyday work upon the farm is looked upon by many as a continued and never ending course of experiments?

How deep should corn be planted? It is a fair answer to say just deep enough so that the seed can readily absorb moisture from the earth, receive heat from the sun, and without needless expenditure of vital force, push its spire up into full daylight. But how deep will that be, by the carpenter's rule? It may be a half inch, an inch, or it may be two inches, depending upon the character of the soil, the rain fall and the sunshine. Tell us what these will be for ten days and the question may be answered.

Effect of Food on Eggs.

It does not require much if any extra understanding on the part of any one to really see how the flesh of a fowl fed on wholesome food and water should be better to the taste than those fed at random, and upon all manner of unwholesome food. This applies equally to the eggs also. Any one can test this, if he so wishes, quite easily, by feeding on slop food; or food of an unclean kind, such as swill and decaying garbage. The flesh of such fowls will quickly taint, and eggs will taste unsavory, at least to any one with an ordinary palate. Fresh air has much to do with this matter. No flesh is fit for the table which is not allowed an unlimited quantity of pure air. If any person of ordinary discernment would consider the actual condition of highly stall-fed animal of Christmas and other similar times of rejoicing, he would be quite easily satisfied that although to look at, the stall-fed animal, which always lacks pure air, is the fattest, yet its flesh does not agree with the stomach as does that of the healthy, ordinarily-fed animal. Some may say that the extra fat does this. I say not, for I have quite often kept account, and though I do not touch a morsel of fat, I was troubled afterward with a disordered stomach, which never happened when I partook heartily of ordinary fine beef, both fat and lean.—*Canada Farmer.*

Salt for Pigs.

Too little attention is usually given by farmers to the stomachs of pigs. They are expected to eat anything and everything, or perhaps to live a long time on only one kind of food. This want of attention is the cause of frequent diseases among pigs, chief of which are diarrhœa and constipation. Regular feeding of salt in moderate quantity of sulphur, with an occasional feeding of charcoal (once a week) will serve to make a good appetite, promote digestion and prevent disturbance of the bowels, which is more likely to occur without these precautions. The health and digestion of pigs would undoubtedly be promoted if they had access to prepared chalk, or of a small amount of magnesia was given them in their food. Pigs suffer much from indigestion, caused by over eating, and if they had the remedies accessible their instincts would teach them to make use of them, and thus prevent the frequent result.

SHADE FOR POULTRY.—Poultry need as much protection during the summer from the fierce rays of the sun as they do in winter from the severe cold, although far too many of our breeders lose sight of this very important fact, and suffer corresponding losses in consequence. Birds compelled to stay in yards which have little, if any, shade during the entire summer, with the sun pouring down on them with the intensity it does in July and August, cannot thrive, while they are rendered much more liable to disease and disorders It pays, and pays well too, to give the fowls comfort at all times, and it costs but little to furnish the necessary shade, no matter how large the runs may be. Trees, such as plums, peach and apple, should at once be planted in the runs, especially the former, which seems to thrive better there than the other kinds named. As these trees will not afford much shade for a few years, temporary shades must be made by making skeleton sheds of poles along the sunny sides of the runs, and then covering them with boughs, ceard limbs, or almost any thing cheap and convenient, which will afford the necessary shelter from the sun. These may not look very handsome, but then the utility compensates fully for the lack of beauty. —*Poultry Monthly.*

INCREDULITY OR WORSE.—Mr Buckmaster relates the following amusing incident bearing on his lecturing tour for the encouragement of agricultural science classes:—Some time ago I was speaking on this subject in one of the southern counties. Two farmers got into the same railway carriage. One said to the other, "Did you hear the lecture?" He replied, "Yes." "What d'ye think of it?" "Well, what could any man think of it? He went on talking about the soil containing oxides. Now, you know as well as I do the soil contains nothing of the sort. I have been a farmer all my life, as ploughin and a-turning up the land, but I never seen any on 'em in my life, and if they had been, I must have seen 'em! and then he went on talkin gabout oxygen, and hydrogen and nitrogen, and other gins, and he talks so free about 'em that I begin to think he had a drop of oxygen 'em; but he may talk as he like, but nothing suits me like a drop of Plymouth gin.—*N. B. Agriculturist.*

The army worm is committing great ravages in Iowa Illinois and Michigan. It is destroying the oat crop.